administrative policy guidance outlined in Executive Order 13985. NIST does not anticipate that the collection of this data will significantly affect the reporting burden.

II. Method of Collection

Information will be electronically collected through the online system iEdison.

III. Data

OMB Control Number: 0693–0090.
Form Number(s): None.
Type of Review: Regular submission, Revision.
Affected Public: Business or other for-profit organizations; Not-for-profit institutions; State, Local, or Tribal government.
Estimated Number of Respondents: 3,063.
Estimated Time per Response:
Invention Records: 6 hours.
Patent Records: 3.5 hours.
Utilization Records: 5.5 hours.
Estimated Total Annual Burden Hours:
Invention Records: 18,378 hours.
Patent Records: 10,720 hours.
Utilization Records: 16,847 hours.
Estimated Total Annual Cost to Public: $0.
Respondent's Obligation: Mandatory.
Legal Authority: The Bayh-Dole Act (35 U.S.C. 18) and its implementing regulations (37 CFR 401).

IV. Request for Comments

We are soliciting public comments to permit the Department/Bureau to: (a) Evaluate whether the proposed information collection is necessary for the proper functions of the Department, including whether the information will have practical utility; (b) Evaluate the accuracy of our estimate of the time and cost burden for this proposed collection, including the validity of the methodology and assumptions used; (c) Evaluate ways to enhance the quality, utility, and clarity of the information to be collected; and (d) Minimize the reporting burden on those who are to respond, including the use of automated collection techniques or other forms of information technology.

Comments that you submit in response to this notice are a matter of public record. We will include or summarize each comment in our request to OMB to approve this ICR. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you may ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Sheleen Dumas,

Department PRA Clearance Officer, Office of the Under Secretary for Economic Affairs, Commerce Department.

[FR Doc. 2023–09477 Filed 5–3–23; 8:45 am]

BILLING CODE 3510–13–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XC952]

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Pile Driving Training Exercises at Naval Base Ventura County, Port Hueneme

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 United States Navy (Navy) to incidentally harass, by Level B harassment only, marine mammals during pile driving training exercises at Naval Base Ventura County, Port Hueneme (NBVC). The Navy's activities are considered military readiness activities pursuant to the MMPA, as amended by the National Defense Authorization Act for Fiscal Year 2004 (2004 NDAA).

DATES: This authorization is effective from May 1, 2023 through April 30, 2024.

FOR FURTHER INFORMATION CONTACT: Reny Tyson Moore, Office of Protected Resources, NMFS, (301) 427–8401. Electronic copies of the application and supporting documents, as well as a list of the references cited in this document, may be obtained online at: *www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-military-readiness-activities.* In case of problems accessing these documents, please call the contact listed above.

SUPPLEMENTARY INFORMATION:

Background

The MMPA prohibits the ''take'' of marine mammals, with certain exceptions. Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (as delegated to NMFS) to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are proposed or, if the taking is limited to harassment, a notice of a proposed incidental harassment authorization 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 2004 NDAA (Pub. L. 108–136) removed the ''small numbers'' and ''specified geographical region'' limitations indicated above and amended the definition of ''harassment'' as applied to a ''military readiness activity.'' The NDAA also amended the process as it relates to military readiness activities and the incidental take authorization process such that ''least practicable impact'' on such species or stock shall include consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity. Before making the required determination, the Secretary shall consult with the Department of Defense regarding personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity. The activity for which incidental take of marine mammals is being requested, addressed here, qualifies as a military readiness activity. The definitions of all applicable MMPA statutory terms cited above are included in the relevant sections below.

Summary of Request

NMFS received a request from the U.S. Navy on August 18, 2021, for an IHA to take marine mammals incidental to pile driving training exercises at NBVC. NMFS provided comments on the application and the Navy resubmitted a revised application on May 11, 2022. On May 25, 2022, the Navy notified NMFS of the need to update the application to include additional activities. NMFS received the updated application on October 26, 2022. NMFS provided comments on the updated application and received a revised application from the Navy on December 5, 2022. NMFS provided additional comments on the application on December 8, 2022, and received an updated application on January 6, 2023, which was deemed adequate and complete on January 12, 2023. The Navy's request is for take of California sea lions (*Zalophus californius*) and harbor seals (*Phoca vitulina richardii*) by Level B harassment only. Neither the Navy nor NMFS expect serious injury or mortality to result from this activity and, therefore, an IHA is appropriate.

Changes were made between the publication of the notice of the proposed IHA and this notice of the final IHA. Specifically, two proposed mitigation measures were removed from the final IHA that were included in the notice of the proposed IHA (see Changes from the Proposed IHA to Final IHA for more details).

Description of Activity

The primary mission of NBVC is to provide a home port and to furnish training, administrative, and logistical support for the Naval Construction Battalions. Naval Construction Group ONE (NCG–1) is planning to execute pile driving training exercises at NBVC that are essential to construction battalion personnel prior to deployment. The specific components of each exercise may vary based on the specific training requirements for each battalion, but could include vibratory and impact pile driving, temporary pier construction, and subsequent removal of all installed materials. These are military readiness activities, as defined under the National 7 Defense Authorization Act (NDAA) of Fiscal Year 2004 (Pub. L. 108–136).

Up to four training exercises will take place during the authorization period. Each training exercise will last up to 24 days, and will include installation (12 days) and removal (12 days) of a sheet pile wall and round pile pier (see Table 1 for a summary of pile details and the estimated effort required for pile installation and removal), for a total of up to 96 days over the four training exercises. The sheet pile wall and pier construction/removal will occur during the same training evolution, but will not occur at the same time. The U.S. Navy is requesting an IHA for Level B harassment of California sea lions and harbor seals related to these activities. Level A harassment is not anticipated or requested. The IHA will be effective from May 1, 2023 through April 30, 2024.

TABLE 1—SUMMARY OF PILE DETAILS AND ESTIMATED EFFORT REQUIRED FOR PILE INSTALLATION AND REMOVAL

Pile type/shape	Size	Number of sheets/ piles	Vibratory installation/removal duration per pile/sheet (minutes)	Potential impact strikes per pile, if needed	Production rate (piles/day)		Days of installation	Days of removal
					Installation	Removal		
Steel Sheet	24-in	15	10/20	NA	3	3	5	5
Timber Pile	16-in	10	20/30	1800	2	2	5	5
H-Beam	14-in	4	20/30	1800	2	2	2	2
Project Totals		29	7.17 hours/12 hours				12	12

Each training event will occur at either Wharf 4 or Wharf D at NBVC. Wharf 4 contains two potential pile driving sites. The Wharf 4 South site is located directly in front of the Naval Facilities Engineering and Expeditionary Warfare Center Dive Locker, while the Wharf 4 East site is located along the side of the Naval Facilities Engineering and Expeditionary Warfare Center Dive Locker (Figure 1). The Wharf D site is located near the mouth of the harbor (Figure 2). The Wharf 4 locations are open to the majority of the harbor, whereas the Wharf D location is almost entirely self-contained, with only one access point from the channel leading to the harbor itself. No part of the Navy's training exercises will occur outside of Port Hueneme Harbor in the Pacific Ocean.

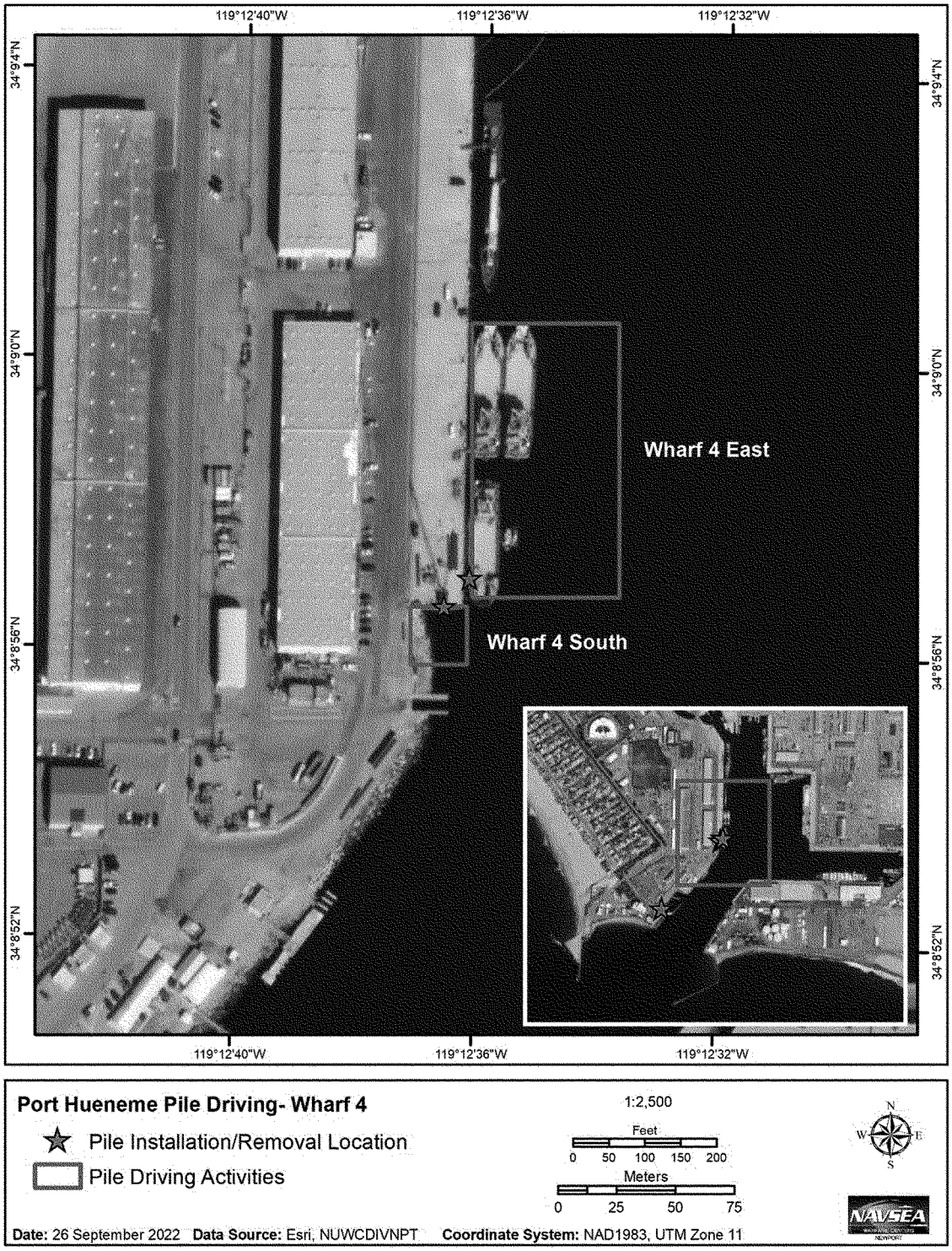

Figure 1—Action Area for Pile Driving Exercises at Wharf 4

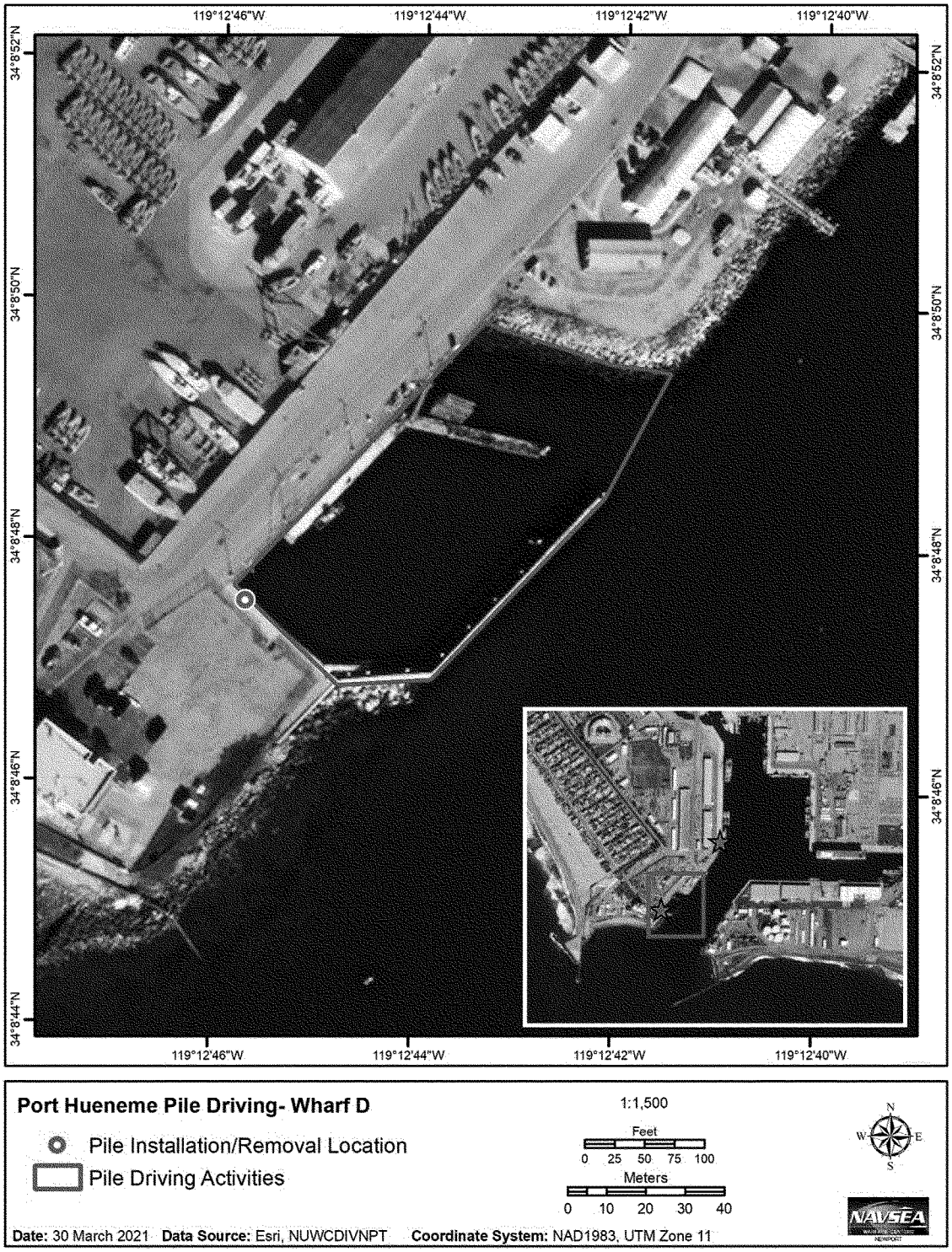

Figure 2—Action Area for Pile Driving Exercises at Wharf D

A detailed description of the Navy's planned training exercises is provided in the **Federal Register** notice for the proposed IHA (88 FR 15956, March 15, 2023). Since that time, no changes have been made to the Navy's planned training exercises. Therefore, a detailed description is not provided here. Please refer to that **Federal Register** notice for the description of the specific activity.

Comments and Responses

A notice of NMFS' proposal to issue an IHA to the Navy was published in the **Federal Register** on March 15, 2023 (88 FR 15956). 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

Changes were made between the publication of the notice of the proposed IHA and this notice of the final IHA. Two proposed mitigation measures were removed from the final IHA that were included in the notice of the proposed IHA: (1) NMFS will approve resumes of Navy biologists who provide the training to lookouts, and (2) Lead lookouts will be selected by Navy biologists among the best performing lookouts. The Navy has indicated that due to the military structure of the Navy's planned training exercises, it is not appropriate for NMFS to approve resumes and for Navy civilians to assign active duty personnel as lookouts. Lookouts will be assigned through the proper chain of command. In addition, some typos were corrected and some minor clarifying language was added to more accurately describe the Navy's monitoring and reporting requirements.

Description of Marine Mammals in the Area of Specified Activities

Sections 3 and 4 of the application summarize available information regarding status and trends, distribution and habitat preferences, and behavior and life history of the potentially affected species. NMFS fully considered all of this information, and we refer the reader to these descriptions, referenced here, instead of reprinting the information. Additional information regarding population trends and threats may be found in NMFS' Stock Assessment Reports (SARs; *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 authorized for this action, 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 authorized here, PBR and annual serious injury and mortality from anthropogenic sources are included here as gross indicators of the status of the species and other threats.

Marine mammal abundance estimates presented in this document represent the total number of individuals that make up a given stock or the total number estimated within a particular study or survey area. NMFS' stock abundance estimates for most species represent the total estimate of individuals within the geographic area, if known, that comprises that stock. For some species, this geographic area may extend beyond U.S. waters. All managed stocks in this region are assessed in NMFS' U.S. Pacific SARs (*e.g.,* Carretta *et al.,* 2022). All values presented in Table 2 are the most recent available at the time of publication and are available in the 2021 SARs (Carretta *et al.,* 2022) (available online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/draft-marine-mammal-stock-assessment-reports*).

TABLE 2—SPECIES LIKELY IMPACTED BY THE SPECIFIED ACTIVITIES

Common name	Scientific name	MMPA stock	ESA/ MMPA status; strategic (Y/N) [1]	Stock abundance Nbest, (CV, N_{min}, most recent abundance survey) [2]	PBR	Annual M/SI [3]
Order Carnivora—Superfamily Pinnipedia						
Family Otariidae (eared seals and sea lions):						
California sea lion	*Zalophus californianus*	U.S	-,-, N	257,606 (N.A.; 233,515; 2014).	14,011	>320
Family Phocidae (earless seals):						
Harbor seal	*Phoca vitulina richardii*	California	-,-, N	30,968 (N.A.; 27,348; 2012).	1,641	43

[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-assessments.* CV is coefficient of variation; N_{min} is the minimum estimate of stock abundance. In some cases, CV is not applicable (N.A.).

[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.

As indicated above, the two species (with two managed stocks) in Table 2 temporally and spatially co-occur with the activity to the degree that take is reasonably likely to occur.

A detailed description of the species likely to be affected by the Navy's training exercises, including brief introductions to the species and relevant stocks as well as available information regarding population trends and threats, and information regarding local occurrence, were provided in the **Federal Register** notice for the proposed IHA (88 FR 15956, March 15, 2023); since that time, we are not aware of any changes in the status of these species and stocks; therefore, detailed descriptions are not provided here. Please refer to that **Federal Register** notice for these descriptions. Please also refer to the NMFS website (*https://www.fisheries.noaa.gov/find-species*) for generalized species accounts.

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 from underwater noise from the Navy's training activities have the potential to result in Level B harassment only of marine mammals in the vicinity of the project area. The **Federal Register** notice for the proposed IHA (88 FR 15956, March 15, 2023) included a discussion of the effects of anthropogenic noise on marine mammals and the potential effects of underwater noise from the Navy's training activities on marine mammals and their habitat, therefore that information is not repeated here. Please refer to that **Federal Register** notice (88 FR 15956, March 15, 2023) for that information. No instances of serious injury or mortality are expected as a result of the planned activities.

Estimated Take

This section provides an estimate of the number of incidental takes authorized through this IHA, which will inform the negligible impact determinations.

Harassment is the only type of take expected to result from these activities. For this military readiness activity, the MMPA defines ''harassment'' as (i) Any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or (ii) Any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where the behavioral patterns are abandoned or significantly altered (Level B harassment).

Authorized takes will be by Level B harassment only, in the form of disruption of behavioral patterns and/or temporary threshold shifts (TTS) for individual marine mammals resulting from exposure to the pile driving activities. Based on the nature of the activity and the anticipated effectiveness of the mitigation measures (*i.e.,* shutdown measures) discussed in detail below in the Mitigation section, Level A harassment is neither anticipated nor authorized.

As described previously, no serious injury or mortality is anticipated 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 will be reasonably expected to be behaviorally harassed (equated to Level B harassment) or to incur permanent threshold shifts (PTS) of some degree (equated to Level A harassment).

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 μPa)) for continuous (*e.g.,* vibratory pile-driving, drilling) and above RMS SPL 160 dB re 1 μPa for non-explosive impulsive (*e.g.,* seismic airguns) or intermittent (*e.g.,* scientific sonar) sources.

The Navy's training activities includes the use of continuous (vibratory pile installation/removal) and impulsive (impact pile installation) sources, and therefore the RMS SPL thresholds of 120 and 160 dB re 1 μPa are applicable.

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

These thresholds are provided in Table 4. The references, analysis, and methodology used in the development of the thresholds are described in NMFS' 2018 Technical Guidance, which may be accessed at: *www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance.*

TABLE 4—THRESHOLDS IDENTIFYING THE ONSET OF PERMANENT THRESHOLD SHIFT

Hearing group	PTS onset thresholds * (received level)	
	Impulsive	Non-impulsive
Low-Frequency (LF) Cetaceans	*Cell 1:* $L_{p,0\text{-}pk,flat}$*:* 219 dB; $L_{E,p,\ LF,24h}$*:* 1183 dB	*Cell 2:* $L_{E,p,\ LF,24h}$*:* 199 dB.
Mid-Frequency (MF) Cetaceans	*Cell 3:* $L_{p,0\text{-}pk,flat}$*:* 230 dB; $L_{E,p,\ MF,24h}$*:* 1185 dB	*Cell 4:* $L_{E,p,MF,24h}$*:* 198 dB.
High-Frequency (HF) Cetaceans	*Cell 5:* $L_{p,0\text{-}pk,flat}$*:* 202 dB; $L_{E,p,HF,24h}$*:* 155 dB	*Cell 6:* $L_{E,p,HF,24h}$*:* 173 dB.
Phocid Pinnipeds (PW) (Underwater)	*Cell 7:* $L_{p,0\text{-}pk.flat}$*:* 218 dB; $L_{E,p,PW,24h}$*:* 1185 dB	*Cell 8:* $L_{E,p,PW,24h}$*:* 201 dB.
Otariid Pinnipeds (OW) (Underwater)	*Cell 9:* $L_{p,0\text{-}pk,flat}$*:* 232 dB; $L_{E,p,OW,24h}$*:* 203 dB	*Cell 10:* $L_{E,p,OW,24h}$*:* 219 dB.

* Dual metric thresholds for impulsive sounds: Use whichever results in the largest isopleth for calculating PTS onset. If a non-impulsive sound has the potential of exceeding the peak sound pressure level thresholds associated with impulsive sounds, these thresholds are recommended for consideration.

Note: Peak sound pressure level ($L_{p,0\text{-}pk}$) has a reference value of 1 μPa, and weighted cumulative sound exposure level ($L_{E,p}$) has a reference value of 1μPa²s. In this Table, thresholds are abbreviated to be more reflective of International Organization for Standardization standards (ISO, 2017). The subscript "flat" is being included to indicate peak sound pressure are flat weighted or unweighted within the generalized hearing range of marine mammals (*i.e.,* 7 Hz to 160 kHz). The subscript associated with cumulative sound exposure level thresholds indicates the designated marine mammal auditory weighting function (LF, MF, and HF cetaceans, and PW and OW pinnipeds) and that the recommended accumulation period is 24 hours. The weighted cumulative sound exposure level thresholds could be exceeded in a multitude of ways (*i.e.,* varying exposure levels and durations, duty cycle). When possible, it is valuable for action proponents to indicate the conditions under which these thresholds will be exceeded.

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.

Sound Source Levels of Training Exercises—The intensity of pile driving sounds is greatly influenced by factors such as the type of piles, hammers, and the physical environment in which the activity takes place. The Navy evaluated sound source level measurements available for certain pile types and sizes from similar environments to determine reasonable source levels likely to result from the pile driving activities. The Navy determined that data from the California Department of Transportation (CALTRANS) (2020) and Naval Facilities Engineering Command Southwest (NAVFAC SW) (2020) provided the most applicable acoustic source data to use as proxy source levels for this action. The Navy proposed, and NFMS agrees, that source level data from NAVFAC SW (2020) be used as proxy source levels for vibratory driving of 24-inch (61 centimeter) sheet piles because this reference provided noise data from the site of the training exercise (*i.e.,* data were recorded from Wharf 4 at NBVC). The Navy proposed, and NMFS agrees, that source level data from CALTRANS (2020) be used for all other pile sizes and installation methods as this reference provided data for the same or similar pile sizes and installation techniques, despite source levels having been recorded at different locations than the site of the Navy's training exercises (Table 5). Details are described below. Note that the source levels discussed here and provided in Table 5 represent the SPL referenced at a distance of 10 m from the source unless otherwise specified. Further, the Navy and NMFS assume that source levels attributed to vibratory removal of piles are equivalent or less than source levels attributed to the vibratory installation of pile.

Vibratory or impact data is not available for 16-inch timber piles. Therefore, the Navy proposed, and NMFS agrees, that source levels for impact driving of 14-inch timber piles at the Ballena Bay in Alameda, California be used as a proxy values for impact driving 16-inch timber piles (CALTRANS, 2020) (Table 5). For vibratory driving of 16-inch timber piles, the Navy proposed, and NMFS concurs, to use source level data from vibratory driving of unknown sized timber piles used at the Norfolk Naval Station in Norfolk, Virginia (CALTRANS, 2020; Illingworth & Rodkin, 2015) as proxy values for the training exercises (Table 5).

Source level data for the installation and removal of 14-inch steel H-beam piles is limited. The Navy proposed, and NMFS agrees, that source levels for 15-inch steel H-been piles installed at Ballena Isle Marina in Alameda, California be used as proxy values for

14-inch steel H-beam piles during impact driving. This decision is based upon the piles similar size, the use of a vertical hammer placement (as opposed to battering at an angle), and the similarity in water depths at the action sites (Table 5). The Navy also proposed, and NMFS agrees, that source levels for 10-inch steel H-beam piles installed during the San Rafeal Canal project in San Rafeal, California (CALTRANS, 2020) be used as proxy values for vibratory driving of 14-inch steel H beam piles during vibratory driving (Table 5).

TABLE 5—SUMMARY OF UNATTENUATED IN-WATER PILE DRIVING SOURCE LEVELS

Pile driving method	Pile description	Peak SPL (dB re 1 µPa)	RMS SPL (dB re 1 µPa)	SEL_{ss} (dB re 1 µPa^2 sec)
Impact	Timber (16-in)	180	170	160
	Steel H beam (14-in)	195	180	170
Vibratory (installation and removal)	Timber (16-in)		162	
	Steel sheet (24-in)		[1] 159	
	Steel H beam (14-in)		147	

[1] The RMS SPL for vibratory installation of 24-inch steel sheets was recorded 11 m from the source.

Level B Harassment Zones—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 * log10 (R1/R2),

Where:

B = transmission loss coefficient (assumed to be 15)

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

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

This formula neglects loss due to scattering and absorption, which is assumed to be zero here. The degree to which underwater sound propagates away from a sound source is dependent on a variety of factors, most notably the water bathymetry and presence or absence of reflective or absorptive conditions including in-water structures and sediments. The recommended TL coefficient for most nearshore environments is the practical spreading value of 15. This value results in an expected propagation environment that will lie between spherical and cylindrical spreading loss conditions, which is the most appropriate assumption for the Navy's training exercises in the absence of specific modelling.

All Level B harassment isopleths are reported in Table 7 considering RMS source levels for impact and vibratory pile driving, respectively. It should be noted that based on the geography of the NBVC and the surrounding land masses, port infrastructure, and the shoreline, the Level B harassment isopleths will reach a maximum of 790 m (2,592 ft) for Wharf 4 South, 795 m (2,601 ft) for Wharf 4 East, and 655 m (2,149 ft) for Wharf D (See Figure 6–1, 6–2, and 6–3 in the Navy's application). Although it is known that there can be leakage or diffraction around such barriers, the assumption herein is that any impervious barriers will contain all pile driving noise associated with the Navy's planned training exercises.

Level A Harassment Zones—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 vibratory and impact 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 will be expected to incur PTS. Inputs used in the optional User Spreadsheet tool are reported in Table 6, and the resulting estimated isopleths are reported in Table 7.

TABLE 6—NMFS USER SPREADSHEET INPUTS

	Vibratory pile driving			Impact pile driving	
	16-inch timber piles	14-inch steel H beam	24-inch steel sheet	16-inch timber piles	14-inch steel H beam
Spreadsheet Tab Used.	A.1) Non-Impul, Stat, Cont.	A.1) Non-Impul, Stat, Cont.	A.1) Non-Impul, Stat, Cont.	E.1) Impact pile driving.	E.1) Impact pile driving.
Source Level (SPL)	162 dB RMS	147 dB RMS	159 dB RMS	160 dB SEL	170 dB SEL.
Transmission Loss Coefficient.	15	15	15	15	15.
Weighting Factor Adjustment (kHz).	2.5	2.5	2.5	2	2.
Time to install/remove single pile (minutes).	30	30	20.		
Number of strikes per pile.				1800	1800.

TABLE 6—NMFS USER SPREADSHEET INPUTS—Continued

	Vibratory pile driving			Impact pile driving	
	16-inch timber piles	14-inch steel H beam	24-inch steel sheet	16-inch timber piles	14-inch steel H beam
Piles to install/remove per day.	2	2	3	2	2.
Distance of sound pressure level measurement (m).	10	10	11	10	10.

TABLE 7—DISTANCES TO LEVEL A HARASSMENT, BY HEARING GROUP, AND LEVEL B HARASSMENT THRESHOLDS PER PILE TYPE AND PILE DRIVING METHOD

Activity	Pile description	Piles per day	Level Aharassment distance (m)		Level A harassment areas (km^2) for all hearing groups [1]	Level B harassment distance (m) all hearing groups	Level B harassment areas (km^2) for all hearing groups [1]
			PW	OW			
Vibratory Installation/Removal	16-inch Timber Piles	3	4.8	0.3	<0.1	[2] 6,310	<0.3
	14-inch Steel H Beam	2	0.5	0	<0.1	631	<0.3
	24-inch Steel Sheet	3	3.4	0.2	<0.1	[2] 4,379	<0.3
Impact Installation/Removal	16-inch Timber Piles	3	36.8	2.7	<0.1	47	<0.1
	14-inch Steel H-Beam	2	170.6	12.4	<0.1	216	<0.1

[1] Harassment areas have been truncated where appropriate to account for land masses.
[2] The maximum harassment distances are approximately 790 m (2,592 ft) for Wharf 4 South, 795 m (2,601 ft) for Wharf 4 East, and 655 m (2,149 ft) for Wharf D.

Marine Mammal Occurrence and Take Estimation

In this section we provide information about the occurrence of marine mammals, including density or other relevant information that will inform the take calculations. Here, we also describe how the occurrence information provided is synthesized to produce a quantitative estimate of the take that is reasonably likely to occur and which is authorized.

California Sea Lion

No density or abundance numbers exist for California sea lions in the action area. Therefore, to quantitatively assess exposure of marine mammals to noise from pile driving conducted as part of the Navy's training exercises, the Navy used estimates derived from recent monitoring efforts to determine the number of animals potentially exposed in the Level A and Level B harassment zones in any one day of pile driving or extraction.

NBVC biologists have been conducting opportunistic surveys of California sea lions hauled out at Wharf D somewhat regularly since 2010. California sea lions have been observed regularly hauling out on structures (*i.e.,* docks, barges, and boats) near Wharf D, sometimes in large numbers. They often crowd onto these structures, making it difficult for observers to determine the total number of sea lions present. Some of the counts at Wharf D include pinnipeds present in the water, which could also include harbor seals. California sea lions are the predominant pinniped species at Port Hueneme Harbor, so the assumption is that nearly all animals present will be California sea lions. The number of California sea lions present in the action area at Wharf D is variable by month and by year. The maximum number of California sea lions counted at Wharf D during an individual survey day was 342 (January 15, 2021). No other pinniped species have been observed at Wharf D during these surveys. While these count data provide a snapshot of pinniped presence in the action area, they do not provide rate of turnover over time of different pinnipeds present in the action area; nor do they provide long-term sea lion presence patterns.

Since the fall of 2020, there have also been efforts to count pinnipeds in the water near Wharf 4; however, these monitoring efforts have been sporadic, taking place for an hour at a time from a boat launch just south of Wharf 4. Monitoring efforts have observed anywhere from 0 to 85 sea lions in an hour (see Figure 6–4 in the Navy's application). Additionally, the same individuals may have been observed multiple times within the survey period. Therefore, the number of California sea lions assumed to be present in the action area at Wharf 4 is variable.

Based on these data, the Navy conservatively estimates that 342 California sea lions (*i.e.,* the maximum number of California sea lions observed in the action area on a single day) may be present in the action area each day and be behaviorally harassed during the 96 days of pile driving planned as part of the Navy's training exercises. Therefore, the Navy requests, and NMFS authorizes, 36,960 instances of take by Level B harassment for California Sea Lions. No take Level A harassment is anticipated or authorized for California sea lions due to the small Level A harassment zones (Table 7) and implementation of shutdown zones, which will be larger than Level A harassment isopleths, as described below in the Mitigation section.

Harbor Seals

No density or abundance numbers exist for harbor seals in the action area. Harbor seals have only been observed by NBVC biologists near Wharf 4; no harbor seals have been detected at Wharf D. The maximum number of harbor seals seen over the course of an hour of observation was five seals. This was 5.88 percent of the maximum number of California sea lions observed at Wharf D (N = 85). Therefore, to account for the potential for harbor seals in the action area, the Navy assumes that 5.88 percent of the maximum number of California sea lions observed animals at Wharf D (5.88 percent of 342, or 20.1 [rounded up to 21] animals per day) are harbor seals.

Based on these data, the Navy conservatively estimates that 21 harbor seals may be present in the action area each day and be behaviorally harassed during the 96 days of pile driving schedule as part of the Navy's training

exercises. Therefore, the Navy requests, and NMFS authorizes, 2,016 instances of take by Level B harassment for harbor seals. No take by Level A harassment is anticipated or authorized for harbor seals. While the Level A harassment zone for impact pile driving 14-inch (36-centimeter) steel H-beams is 170.6 m, harbor seals are considered rare in the action area (Department of the Navy, 2019) minimizing the likelihood of Level A harassment take. In addition, measures described below in the Mitigation section, including shutdown measures and the implementation of lookouts at stations where the entire Level B harassment zones are observable, will minimize the likelihood that harbor seals will be in this larger zone during impact driving of steel H-beams and that they will incur PTS before pile driving activities could be shut down. Therefore, NMFS agrees with the Navy and is not authorizing any takes by Level A harassment takes for harbor seals during the Navy's training exercises.

In summary, the total amount of Level A harassment and Level B harassment authorized for each marine mammal stock is presented in Table 8.

TABLE 8—AMOUNT OF TAKE AS A PERCENTAGE OF STOCK ABUNDANCE, BY STOCK AND HARASSMENT TYPE

Species	Stock	Authorized take			Percent of stock
		Level A	Level B	Total	
California Sea Lion	U.S.	0	36,960	36,960	14.3
Harbor Seal	California	0	2,016	2,016	6.51

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, and, in the case of a military readiness activity, personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

The Navy must employ the following standard mitigation measures, as included in the IHA:

- Conduct briefings between supervisors and trainees, the marine mammal monitoring team, and Navy staff prior to the start of all in-water pile driving activity, and when new personnel join the work, to ensure that responsibilities, communication procedures, marine mammal monitoring protocols, and operational procedures are clearly understood.
- During all in-water work other than pile driving (*e.g.,* pile placement, boat use), in order to prevent injury from physical interaction with construction equipment, a shutdown zone of 10 m (33 ft) will be implemented. If a marine mammal comes within 10 m (33 ft), operations shall cease and vessels shall reduce speed to the minimum level required to maintain steerage and safe working conditions. If human safety is at risk, the in-water activity will be allowed to continue until it is safe to stop.
- The Navy must establish shutdown zones for all for in-water pile driving activities. The purpose of a shutdown zone is generally to define an area within which shutdown of activity will occur upon sighting of a marine mammal (or in anticipation of an animal entering the defined area). Shutdown zones will vary based on the type of pile installation/removal activity (See Table 9). Here, shutdown zones are larger than the calculated Level A harassment isopleths shown in Table 7. The placement of lookouts during all pile driving activities (described in detail in the Monitoring and Reporting section) will ensure that the entirety of all shutdown zones and Level A harassment zones are visible during pile installation and removal.

TABLE 9—SHUTDOWN ZONES DURING IN-WATER PILE DRIVING ACTIVITIES

Activity	Pile description	Distance (m)	
		PW	OW
Vibratory Installation/Removal	16-inch Timber Piles	15	15
	14-inch Steel H Beam	15	15
	24-inch Steel Sheet	15	15
Impact Installation	16-inch Timber Piles	40	40
	14-inch Steel H Beam	175	175

• The Navy must delay or shutdown all in-water pile driving activities should an animal approach or enter the appropriate shutdown zone. The Navy may resume in-water pile driving activities after one of the following conditions has been met: (1) the animal is observed exiting the shutdown zone; (2) the animal is thought to have exited the shutdown zone based on a determination of its course, speed, and movement relative to the pile driving location; or (3) the shutdown zone has been clear from any additional sightings for 15 minutes.

• The Navy shall employ lookouts trained in marine mammal identification and behaviors to monitor marine mammal presence in the action area. Requirements for numbers and locations of observers will be based on hammer type, pile material, and Seabees training location as described in Section 5 of the IHA. Lookouts must track marine mammals observed anywhere within their visual range relative to in-water training activities, and estimate the amount of time a marine mammal spends within the Level A or Level B harassment zones while pile driving activities are underway. The Navy must monitor the project area, including the Level B harassment zones, to the maximum extent possible based on the required number of lookouts, required monitoring locations, and environmental conditions. For all pile driving and removal activities, at least one lookout must be used.

• The placement of the lookouts during all pile driving and removal activities must ensure that the entire applicable shutdown zones are visible during all in-water pile installation and removal. One observer must be placed in a position to implement shutdown/delay procedures, when applicable, by notifying the hammer operator of a need for a shutdown of pile driving or removal.

• Prior to the start of pile driving or removal, the shutdown zone(s) must be monitored for a minimum of 30 minutes to ensure that they are clear of marine mammals (*i.e.,* pre-clearance monitoring). Pile driving will only commence once observers have declared the shutdown zone(s) are clear of marine mammals. Monitoring must also take place for 30 minutes post-completion of pile driving.

• If in-water work ceases for more than 30 minutes, the Navy must conduct pre-clearance monitoring of both the Level B harassment zone and shutdown zone.

• Pre-start clearance monitoring must be conducted during periods of visibility sufficient for the lead lookout to determine that the shutdown zones indicated in Table 9 are clear of marine mammals. Pile driving may commence following 30 minutes of observation when the determination is made that the shutdown zones are clear of marine mammals.

• The Navy must use soft start techniques when impact pile driving. Soft start requires contractors to provide an initial set of three strikes at reduced energy, followed by a 30 second waiting period, then two subsequent reduced energy strike sets. A soft start must 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. Soft starts will not be used for vibratory pile installation and removal. Lookouts shall begin observing for marine mammals 30 minutes before ''soft start'' or in-water pile installation or removal begins.

• For any marine mammal species for which take by Level B harassment has not been requested or authorized, in-water pile installation/removal will shut down immediately when the animals are sighted.

• If take by Level B harassment reaches the authorized limit for an authorized species, pile installation will be stopped as these species approach the Level B harassment zone to avoid additional take of them.

Based on our evaluation of the applicant's described measures, NMFS has determined that the 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 action; or (4) biological or behavioral context of exposure (*e.g.,* age, calving or feeding areas);

• Individual marine mammal responses (behavioral or physiological) to acoustic stressors (acute, chronic, or cumulative), other stressors, or cumulative impacts from multiple stressors;

• How anticipated responses to stressors impact either: (1) long-term fitness and survival of individual marine mammals; or (2) populations, species, or stocks;

• Effects on marine mammal habitat (*e.g.,* marine mammal prey species, acoustic habitat, or other important physical components of marine mammal habitat); and,

• Mitigation and monitoring effectiveness.

Visual Monitoring

Monitoring must be conducted by qualified lookouts with support from Navy biologists, in accordance with the following:

• Navy biologists will train and certify lookouts in accordance with the mitigation, monitoring and reporting requirements of the issued IHA;

• All lookouts will maintain contact via either handheld communication devices or flags to signal sightings and shutdowns;

• Lookouts shall be placed at vantage points to monitor for marine mammals and implement shutdown/delay procedures when applicable by calling for the shutdown to the hammer operator;

• The Lead lookout will be located within auditory range of the pile driving team and will have primary responsibility for calling activity shutdowns;

• Lookouts shall use a hand-held global positioning device (GPS) device, rangefinder, visual reference points, or marker buoy to verify the required monitoring distance from the project site;

• Monitoring shall occur in all-weather until training has concluded for the day;

• Lookouts must scan the waters within the Level A harassment and Level B harassment zones using binoculars (10x42 or similar) and or the naked eye and make visual observations of marine mammals present; and

• Lookouts must record all observations of marine mammals as described in the Section 5 of the IHA, regardless of distance from the pile being driven. Lookouts shall document any behavioral reactions in concert with distance from piles being driven or removed.

Lookouts must have the following additional qualifications:

• Visual acuity in both eyes (correction is permissible) sufficient for discernment of moving targets at the water's surface with ability to estimate target size and distance; use of binoculars may be necessary to correctly identify the target;

• 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.

Reporting

The Navy must submit a draft marine mammal monitoring report to NMFS within 90 days after the completion of pile driving training activities, or 60 days prior to a requested date of issuance of any future IHAs for projects at the same location, whichever comes first. NMFS will provide comments within 30 days after receiving the draft report, and the Navy will address the comments and submit revisions within 30 days of receipt. If no comments are received from NMFS within 30 days, the draft report will be considered as final.

The draft and final marine mammal monitoring reports must be submitted to *PR.ITP.MonitoringReports@noaa.gov* and *ITP.tyson.moore@noaa.gov.* The reports shall include an overall description of work completed, a narrative regarding marine mammal sightings, and associated data sheets. Specifically, the reports must include:

• Dates and times (begin and end) of all marine mammal monitoring;

• Training activities occurring during each daily observation period, including the number and type of piles driven or removed and by what method (*i.e.,* impact or vibratory) and the total equipment duration for vibratory installation and removal for each pile or estimated total number of strikes for each pile for impact driving;

• Lookout locations during marine mammal monitoring;

• Environmental conditions during monitoring periods (at beginning and end of lookout 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;

• Description of any deviation from initial proposal in pile numbers, pile types, average driving times, *etc.;*

• Brief description of any impediments to obtaining reliable observations during training periods; and

• Description of any impediments to complying with the aforementioned mitigation measures.

Lookouts must record all incidents of marine mammal occurrence in the area in which take is anticipated regardless of distance from activity, and shall document any behavioral reactions in concert with distance from piles being driven or removed. Specifically, lookouts must record the following:

• Name of lookout who sighted the animal(s) and lookout 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), lookout confidence in identification, and the composition of the group if there is a mix of species;

• Distance and bearing of each marine mammal observed relative to the pile being driven for each sighting (if pile driving was occurring at time of sighting);

• Estimated number of animals (min/max/best estimate);

• Estimated number of animals by cohort (adults, juveniles, neonates, group composition, sex class, *etc.*);

• Animal's closest point of approach and estimated time spent within the harassment zone;

• 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 and shutdown zones, by species; and

• Detailed information about any implementation of any mitigation triggered (*e.g.,* shutdowns and delays), a description of specific actions that ensued, and resulting changes in behavior of the animal(s), if any.

Reporting Injured or Dead Marine Mammals

In the event that personnel involved in the activities discover an injured or dead marine mammal, the IHA-holder must immediately cease the specified activities and report the incident to the Office of Protected Resources (OPR) (*PR.ITP.MonitoringReports@noaa.gov; itp.tysonmoore@noaa.gov*) and to the West Coast Regional Stranding Coordinator (1–866–767–6114) as soon as feasible. The incident report must 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 behaviors 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.

If the death or injury was clearly caused by the specified activity, the Navy 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 Navy must not resume their activities until notified by NMFS that they can continue.

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 both California sea lions and harbor seals, 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 will lead to a different analysis for this activity.

NMFS has identified key factors which may be employed to assess the level of analysis necessary to conclude whether potential impacts associated with a specified activity should be considered negligible. These include (but are not limited to) the type and magnitude of taking, the amount and importance of the available habitat for the species or stock that is affected, the duration of the anticipated effect to the species or stock, and the status of the species or stock.

NMFS does not anticipate that serious injury or mortality will occur as a result of the Navy's planned activity given the nature of the activity, even in the absence of required mitigation. Pile driving activities associated with the Navy's pile driving training exercises, as outlined previously, have the potential to disturb or displace marine mammals. Specifically, the specified activities may result in take, in the form of Level B harassment, incidental to underwater sounds generated from pile driving. Potential takes could occur if individuals are present in zones ensonified above the thresholds for Level B harassment, identified above, while activities are underway. Level A harassment is not anticipated or authorized, as described in the Estimated Take section, given the construction method and the implementation of the planned mitigation measures, including soft start measures during impact pile driving and shutdown zones.

Vibratory and impact hammers will be the primary methods of installation. Vibratory pile driving produces lower SPLs than impact pile driving and will be the predominant construction method used during training (Table 1). The rise time of the sound produced by vibratory pile driving is slower, reducing the probability and severity of injury. Impact pile driving produces short, sharp pulses with higher peak levels and much sharper rise time to reach those peaks. When impact pile driving is used, implementation of soft start and shutdown zones will significantly reduce any possibility of injury. Given sufficient ''notice'' through use of soft starts (for impact driving), marine mammals are expected to move away from a sound source prior to it becoming potentially injurious. The Navy will use at least one lookout stationed strategically to increase detectability of marine mammals, enabling a high rate of success in implementation of shutdowns to avoid injury.

Exposures to elevated sound levels produced during pile driving and removal in NBVC may cause behavioral disturbance of some individuals, however behavioral responses of marine mammals are expected to be mild, short term, and temporary. The Navy's activities and associated impacts will occur within a limited, confined area of the stocks' range. The project area is concentrated within two wharfs and the Level B harassment zones will be truncated by land. Given that pile driving and removal will occur for only short durations (*i.e.,* four training sessions lasting up to 24 days each) on nonconsecutive days, any harassment occurring will be temporary. Pinnipeds swim, dive, mill, and haul out in and around Port Hueneme, but there is no data regarding the rate of turnover over time of different pinnipeds present in the action are. Further, there is no information regarding long-term pinniped presence patterns. Due to the nature of the training exercise, we can presume that some individual harbor seals and California sea lions will be repeatedly taken. Repeated, sequential exposure to pile driving noise over a long duration could result in more severe impacts to individuals that could affect a population; however, the number of non-consecutive pile driving days for this project means that these types of impacts are not anticipated.

Effects on individuals that are taken by Level B harassment, as enumerated in the Estimated Take section, on the basis of reports in the literature as well as monitoring from other similar activities, will likely be limited to reactions such as increased swimming speeds, increased surfacing time, or decreased foraging (if such activity were occurring) (*e.g.,* Thorson and Reyff, 2006). Marine mammals within the Level B harassment zones may not show any visual cues they are disturbed by activities or they could become alert, avoid the area, leave the area, or display other mild responses that are not observable, such as changes in vocalization patterns. Most likely, individuals will simply move away from the sound source and be temporarily displaced from the areas of pile driving, although even this reaction has been observed primarily only in association with impact pile driving. The pile driving activities analyzed here are similar to, or less impactful than, numerous other construction activities conducted in Southern California, which have taken place with no known long-term adverse consequences from behavioral harassment (*e.g.,* 86 FR 73247, December 27, 2021; 87 FR 65578, October 31, 2022). Level B harassment will be reduced to the level of least practicable adverse impact through use of mitigation measures described herein and, if sound produced by project activities is sufficiently disturbing, animals are likely to simply avoid the area while the activity is occurring. While both California sea lions and harbor seals have been observed in the NVBC, they are frequently observed along the nearshore waters of Southern California and have been observed hauling out outside the mouth of Port Hueneme Harbor (Department of the Navy, 2019) suggesting they have available habitat outside of the NBVC to use while the activity is occurring. While vibratory pile driving associated with the project may produce sounds above ambient noise, the project site itself is located in an industrialized port, the entire ensonified area is within in the NBVC, and sounds produced by the activities are anticipated to quickly become indistinguishable from other background noise in the port as they attenuate to near ambient SPLs moving away from the project site. Therefore, we expect that animals disturbed by

project sound will simply avoid the area and use more-preferred habitats.

Additionally, and as noted previously, 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 TTS potentially incurred here will not be expected to adversely impact individual fitness, let alone annual rates of recruitment or survival.

More generally, there are no known calving or rookery grounds within the project area. Because the Navy's activities could occur during any season, takes may occur during important feeding times. However, the project area represents a small portion of available foraging habitat and impacts on marine mammal feeding for all species should be minimal.

The project also is not expected to have significant adverse effects on affected marine mammal habitat. The project activities will not modify existing marine mammal habitat for a significant amount of time. Impacts to the immediate substrate are anticipated, but these will be limited to minor, temporary suspension of sediments, which could impact water quality and visibility for a short amount of time but which will not be expected to have any effects on individual marine mammals. Any impacts on marine mammal prey that will occur during the Navy's planned activity will 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. The activities may cause some fish to temporarily leave the area of disturbance, thus temporarily impacting marine mammal foraging opportunities in a limited portion of the foraging range. However, because of the short duration of the activities and the small area of the habitat that may be affected, the impacts to marine mammal habitat are not expected to cause significant or long-term negative consequences. 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. Overall, the area impacted by the project is very small compared to the available surrounding habitat, and does not include habitat of particular importance.

It is unlikely that minor noise effects in a small, localized area of habitat will 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 will, therefore, not result in population-level impacts.

In summary and as described above, the following factors primarily support negligible impact determinations for the affected stocks of California sea lions and harbor seals 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;
- Take by Level A harassment of California sea lions and harbor seals is not anticipated or authorized;
- The Navy will implement mitigation measures including soft starts for impact pile driving and shutdown zones to minimize the numbers of marine mammals exposed to injurious levels of sound, and to ensure that take by Level A harassment does not occur;
- The anticipated incidents of Level B harassment consist of, at worst, temporary modifications in behavior or TTS that will not result in fitness impacts to individuals;
- The specified activity and ensonification area is very small relative to the overall habitat ranges of all species and does not include habitat areas of special significance (Biologically Important Areas or ESA-designated critical habitat);
- The intensity of anticipated takes by Level B harassment is relatively low for all stocks and will not be of a duration or intensity expected to result in impacts on reproduction or survival; and
- The presumed efficacy of the mitigation measures in reducing the effects of the specified activity to the level of least practicable adverse impact.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the monitoring and mitigation measures, NMFS finds that the total marine mammal take from the Navy's activity will have a negligible impact on all affected marine mammal 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 will 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 authorized 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 the proposed action (*i.e.,* the issuance of an IHA) and alternatives 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 will 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 potential harassment of two marine mammal species incidental to pile driving training exercises at NBVC, which includes the previously explained mitigation, monitoring, and reporting.

Dated: April 28, 2023.

Kimberly Damon-Randall,

Director, Office of Protected Resources, National Marine Fisheries Service.

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XC589]

Atlantic Highly Migratory Species; Essential Fish Habitat 5-Year Review

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

ACTION: Notice of availability; request for comments.

SUMMARY: NMFS announces the availability of the Draft Atlantic Highly Migratory Species (HMS) Essential Fish Habitat (EFH) 5-Year Review (Draft HMS EFH 5-Year Review). The purpose of the Draft HMS EFH 5-Year Review is to gather relevant new information and determine whether modifications to existing EFH descriptions and designations are warranted, in compliance with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and implementing regulations. If EFH modifications are warranted, an amendment to the 2006 Consolidated Atlantic HMS Fishery Management Plan (2006 Consolidated HMS FMP) may be initiated.

DATES: Written comments must be received by July 3, 2023.

ADDRESSES: Comments may be submitted electronically via the Federal e-Rulemaking Portal. Go to *https://www.regulations.gov* and enter ''NOAA–NMFS–2022–0036'' in the Search box. Click on the ''Comment'' icon, complete the required fields, and enter or attach your comments.

Instructions: Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered by NMFS. All comments received are a part of the public record and will generally be posted for public viewing on *www.regulations.gov* without change. All personal identifying information (*e.g.,* name, address, *etc.*), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will accept anonymous comments (enter ''N/A'' in the required fields if you wish to remain anonymous).

Electronic copies of information related to the Draft HMS EFH 5-Year Review, including the Draft HMS EFH 5-Year Review, may be obtained on the HMS Management Division website at: *https://www.fisheries.noaa.gov/action/essential-fish-habitat-5-year-review-0.*

FOR FURTHER INFORMATION CONTACT: Jennifer Cudney, *jennifer.cudney@noaa.gov,* at 727–824–5399, or Ann Williamson, *ann.williamson@noaa.gov,* at 301–427–8503.

SUPPLEMENTARY INFORMATION: Atlantic HMS fisheries (tunas, billfish, swordfish, and sharks) are managed under the authority of the Magnuson-Stevens Act (16 U.S.C. 1801 *et seq.*) and the Atlantic Tunas Convention Act (ATCA; 16 U.S.C. 971 *et seq.*). The 2006 Consolidated HMS FMP and its amendments are implemented by regulations at 50 CFR part 635.

The Magnuson-Stevens Act includes provisions concerning the identification and conservation of EFH (16 U.S.C. 1801 *et seq.*). EFH is defined in 50 CFR 600.10 as ''those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.'' NMFS must identify and describe EFH, minimize to the extent practicable the adverse effects of fishing on EFH, and identify other actions to encourage the conservation and enhancement of EFH (§ 600.815(a)). EFH maps are presented online in the NMFS EFH Mapper (*https://www.habitat.noaa.gov/apps/efhmapper/*). The most recently available EFH shapefiles may be downloaded from the EFH Data Inventory (*https://www.habitat.noaa.gov/protection/efh/newInv/index.html*). Federal agencies that authorize, fund, or undertake actions that may adversely affect EFH must consult with NMFS, and NMFS must provide conservation recommendations to Federal and state agencies regarding any such actions (§ 600.815(a)(9)).

Under the current FMP, NMFS uses a two-phase process to update HMS EFH. Phase 1 includes the development of a draft 5-year review, the public comment process, and the publication of a final 5-year review. Phase 1 is initiated approximately 5 years after publication of the most recent EFH action. This draft document constitutes the first part of Phase 1. If there is no new information that warrants updating EFH, then we may choose to retain the previously designated HMS EFH. However, if new information warrants updates, we would initiate Phase 2 of this process, which may include a follow-up action that implements the recommended updates to HMS EFH. The type of follow-up action depends on the outcomes of the 5-year review (*i.e.,* whether it is a simple update, or if it requires an FMP amendment or rulemaking).

EFH 5-year reviews evaluate published scientific literature, unpublished scientific reports, information solicited from interested parties, and previously unavailable or inaccessible data. NMFS announced the initiation of this review and solicited information for this review from the public in a **Federal Register** notice on April 5, 2022 (87 FR 19667). The initial public review/submission period ended on June 6, 2022.

The draft document, developed as part of Phase 1, considers fishing effects, non-fishing effects, environmental changes, and management changes for all HMS, which include tunas (bluefin, bigeye, albacore, yellowfin, and skipjack), sharks, swordfish, and billfishes (blue marlin, white marlin, sailfish, roundscale spearfish, and longbill spearfish). It analyzes new information and data that was not previously included in recent updates to Atlantic HMS EFH, or has become available since publication of our previous EFH action (Amendment 10 to the 2006 Consolidated HMS FMP (82 FR 42329, September 7, 2017)). Upon completion of the Draft HMS EFH 5-Year Review, NMFS will analyze the information gathered through the EFH review process and determine if subsequent revision or amendment of EFH is warranted.

Each section of the Draft HMS EFH 5-Year Review provides topic-specific guidance on feedback that would be helpful from the public to complete this 5-year review. In general, NMFS invites the public to submit comments, information, and data pertaining to the 10 components of EFH for HMS. In particular, NMFS is seeking:

- New data or information that should be incorporated into future analyses to redefine EFH boundaries for HMS;
- New information on methodologies appropriate for the delineation of HMS EFH;
- New data or information to support new or modifications to existing habitat areas of particular concern (HAPCs) for HMS (or whether existing HAPCS are still needed);
- Information pertaining to the role of prey in HMS EFH designations;
- Information on the adverse effects of fishing and non-fishing activities on EFH; and