arising after publication of this notice that require emergency action under Section 305(c) of the Magnuson-Stevens Fishery Conservation and Management Act, provided the public has been notified of the Council's intent to take action to address the emergency.

Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Kathy Pereira at the Gulf Council Office (see **ADDRESSES**), at least 5 working days prior to the meeting.

Dated: October 17, 2018.

Tracey L. Thompson,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2018–22993 Filed 10–19–18; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XG105

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to the Mission Bay Ferry and Water Taxi Landing Project in San Francisco Bay, California

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

ACTION: Notice; issuance of 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 Port of San Francisco to incidentally harass, by Level B harassment only, marine mammals during construction activities associated with the pile driving, pile removal, and drilling on the Mission Bay Ferry Landing (MBFL) and Water Taxi Landing (WTL) Project in San Francisco Bay, California.

DATES: This Authorization is effective from June 1, 2019, to May 31, 2020.

FOR FURTHER INFORMATION CONTACT: Gray Redding, Office of Protected Resources, NMFS, (301) 427–8401. Electronic copies of the application and supporting documents, as well as a list of the references cited in this document, may be obtained online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-construction-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 issued or, if the taking is limited to harassment, a notice of an incidental take authorization may be provided to the public for review.

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

Summary of Request

On November 2, 2017, NMFS received a request from the Port of San Francisco for an IHA to take marine mammals incidental to pile driving and drilling in San Francisco Bay. NMFS determined that a revised version of the Port's application was adequate and complete on June 22, 2018. The Port of San Francisco's request was for take of seven species of marine mammals by Level B harassment only. This authorization is valid from June 1, 2019, to May 31, 2020. Neither the Port of San Francisco nor NMFS expects serious injury or mortality to result from this activity and, therefore, an IHA is appropriate.

Description of Proposed Activity

Overview

The Port of San Francisco plans to construct the MBFL and WTL on San Francisco Bay, within the Port of San Francisco's Southern Waterfront in the Mission Bay/Central Waterfront area. The project will create two, two-berth, floating landings to add ferry and water taxi access to the area. The project's activities that have the potential to take marine mammals include vibratory and impact pile driving, vibratory pile removal, and down the hole drilling. In total, 28 permanent piles ranging from 16-inch to 36-inch in diameter will be installed, but only 24 will require in water installation. Twelve older piles will be removed, and four 14-inch H-piles and one 30-inch steel pile will be driven temporally to act as the caisson and supports during down the hole drilling at 10 locations. In addition, the project will include dredging, however authorization of take from this activity is neither requested nor proposed for authorization. All piles will be driven between June 1, 2019 and November 20, 2019.

A detailed description of the planned Port of San Francisco MBFL and WTL project is provided in the **Federal Register** notice for the proposed IHA (83 FR 42465; August 22, 2018). Since that time, no changes have been made to the planned Port of San Francisco activities. Therefore, a detailed description is not provided here. Please refer to that **Federal Register** notice for the description of the specific activity.

While there were not changes to the planned activity, some errors were corrected and other minor changes occurred following publication of the proposed IHA. These changes are outlined in each section of this notice In this section, the rate of pile installation for 36-inch steel piles was corrected from 5 piles per day to 4, to address an inconsistency in the application and more accurately reflect the applicant's expected schedule.

TABLE 1—SUMMARY OF IN WATER PILE INSTALLATION

Locations	Project element	Pile diameter (inch)	Pile type	Number of piles	Method	Piles/day	Construction days
Debris Removal		12	Steel	12	If necessary, a vibratory hammer will be used to remove up to 12 piles 60-120 seconds/pile while pulling the pile up to loosen it from the sediment.	12	1
MBFL	Pier	14	H-pile steel	4	Four 14-inch steel H beams will be driven with Vibratory Driver 600 seconds/pile to support 30-inch steel caisson sleeve driven with Vibratory Driver (900 sec/pile) to refusal, drill out hole removing soils, place and position concrete pile, grout pile in place while simultaneously pulling the caisson.	4	10
		30	Steel Caisson	1		1	
		24	Octagonal Concrete.	10		1	
	Float Guide Piles	36	Steel	6	Vibratory Driver 1,200 sec/pile then Impact Hammer last 15 ft (150 strikes/pile ~20 minutes); bubble curtain will be used during impact duration.	4	2
	Donut Fender Piles.	36	Steel	2	Vibratory Driver 1200 sec/pile then Impact Hammer last 15 ft (150 strikes/pile ~20 minutes); bubble curtain will be used during impact duration.	4	
WTL	Platform	16	Steel	2	Vibratory Driver 600 sec/pile then Impact Hammer last 15 ft (500 strikes/pile ~20 minutes); bubble curtain will be used during impact duration.	2	1
	Guide Piles	20	Square Concrete	4	Impact Hammer 500 strikes/pile (max 20 minutes); a bubble curtain will be used during impact duration.	4	1

Comments and Responses

A notice of NMFS's proposal to issue an IHA to the Port of San Francisco was published in the **Federal Register** on August 22, 2018 (83 FR 42465). That notice described, in detail, the Port of San Francisco's activity, the marine mammal species that may be affected by the activity, and the anticipated effects on marine mammals. During the 30-day public comment period, NMFS received comments from the Marine Mammal Commission. The Marine Mammal Commission recommended that NMFS issue the IHA, subject to inclusion of the proposed mitigation, monitoring, and reporting measures.

Comment 1: The Commission recommended NMFS authorize take by Level A harassment for harbor seals, noting the estimated number that could occur in the Level A harassment zone, the potential for take, and the possible limited effectiveness of mitigation.

Response 1: NMFS recognizes the potential for Level A harassment associated with the Port of San Francisco's MBFL and WTL project, but notes that this anticipated take by Level A harassment of two harbor seals is avoidable given the required mitigation and monitoring. Additionally, this calculation is highly conservative because it uses the project's largest Level A harassment zone for the entire duration, despite this zone being in effect for a short time and other Level A harassment zones being smaller. While NMFS could authorize take by Level A harassment associated with this activity as a precaution, we do not agree that such authorization is warranted and the applicant did not request such authorization. Additionally, the observation of an animal within the Level A harassment zone does not necessarily equate to an incident of Level A harassment, as the calculation of that zone assumes that the animal is present at that distance from the driven pile for a given duration necessary to accumulate sufficient sound energy to actually incur injury. The largest Level A harassment zone for harbor seals, of 130 meters (m), assumes an activity duration of 40 minutes. Given that, it is unlikely that briefly occupying the Level A harassment zone would expose an animal to sound energy sufficient to cause take by Level A harassment.

Comment 2: The Commission recommended that NMFS refrain from using a source level reduction factor for sound attenuation device implementation during impact pile driving for all relevant incidental take authorizations due to the different noise level reduction at different received ranges.

Response 2: While it is true that noise level reduction measured at different received ranges does vary, given that both Level A and Level B harassment estimation using geometric modeling is based on noise levels measured at near-source distances (~10 m), NMFS believes it reasonable to use a source level reduction factor for sound attenuation device implementation during impact pile driving. In the case of the SF–OBB impact driving isopleth estimates using an air bubble curtain for source level reduction, NMFS reviewed Caltrans' bubble curtain ''on and off'' studies conducted in San Francisco Bay in 2003 and 2004. The equipment used for bubble curtains has likely improved since 2004 but due to concerns for fish species, Caltrans has not been able to conduct ''on and off'' tests recently. Based on 74 measurements (37 with the bubble curtain on and 37 with the bubble curtain off) at both near (<100 m) and far (>100 m) distances, the linear averaged received level reduction is 6 decibels (dB). If limiting the data points (a total of 28 measurements, with 14 during bubble curtain on and 14 during bubble curtain off) to only near distance measurements, the linear averaged noise level reduction is 7 dB. Since impact zone analysis using geometric spreading model is typically based on measurements at near-source distance, we consider it appropriate to use a reduction of 7 dB as a noise level reduction factor for impact pile driving using an air bubble curtain system.

Bubble curtains are effective at attenuating sound originating within the water column. Pile driving does generate sound within the seafloor as well. This sound travels within the seafloor and emerges back to the water column, but its intensity is reduced within the sediment due to absorption by the sediment and reflection at the sediment/water interface.

NMFS will evaluate the appropriateness of using a certain source level reduction factor for sound attenuation device implementation during impact pile driving for all relevant incidental take authorizations when more data become available.

Comment 3: The Commission recommended that NMFS require the applicant to conduct sound source measurements of its drilling activities in conjunction with the required sound measurements of ambient conditions.

Response 3: NMFS agrees that sound source measurements of the drilling

activities would be valuable, but has determined that this would be an overly burdensome requirement relative to the expected impacts of the specified activity (refer to negligible impact section). The project's permitted activity is short. Additionally, the process to record sound data sufficiently rigorous enough to provide new source information can be complex and costly. If the Port of San Francisco chooses to conduct sound source measurements, NMFS will work with the Port to help ensure these measurements are properly taken to best ensure their usefulness.

Comment 4: The Commission recommends that NMFS require applicants to provide proposed hydroacoustic monitoring plans with their applications to allow for public comment, or provide them to the Commission for review prior to final authorization.

Response 4: NMFS disagrees that the MMPA or NMFS's implementing regulations require that detailed hydroacoustic monitoring plans be made available for public review. Additionally, NMFS has the necessary technical expertise to properly evaluate and make recommendations to hydroacoustic monitoring plans that are received. That said, NMFS encourages applicants to prepare as detailed a monitoring plan as possible, as early in the process as possible, and shares these plans with the public if they are available at the time the proposed authorization is published.

Comment 5: The Commission recommends that NMFS refrain from implementing its proposed renewal process and instead use abbreviated **Federal Register** notices and reference existing documents to streamline the incidental harassment authorization process. The Commission suggested that the MMPA states that public comment on proposed authorizations must be concurrent with publication in the **Federal Register**. The Commission further recommends that if NMFS did not pursue a more general route, NMFS provide the Commission and the public with a legal analysis supporting its conclusion that the process is consistent with the requirements under section 101(a)(5)(D) of the MMPA.

Response 5: The notice of the proposed IHA expressly notifies the public that under certain, limited conditions an applicant could seek a renewal IHA for an additional year. The notice describes the conditions under which such a renewal request could be considered and expressly seeks public comment in the event such a renewal is sought. Additional reference to this solicitation of public comment has recently been added at the beginning of FR notices that consider renewals. NMFS appreciates the streamlining achieved by the use of abbreviated **Federal Register** notices and intends to continue using them for proposed IHAs that include minor changes from previously issued IHAs, but which do not satisfy the renewal requirements. However, we believe our proposed method for issuing renewals meets statutory requirements and maximizes efficiency. Importantly, such renewals would be limited to where the activities are identical or nearly identical to those analyzed in the proposed IHA, monitoring does not indicate impacts that were not previously analyzed and authorized, and the mitigation and monitoring requirements remain the same, all of which allow the public to comment on the appropriateness and effects of a renewal at the same time the public provides comments on the initial IHA. NMFS has, however, modified the language for future proposed IHAs to clarify that all IHAs, including renewal IHAs, are valid for no more than one year and that the agency would consider only one renewal for a project at this time. In addition, notice of issuance or denial of a renewal IHA would be published in the **Federal Register**, as are all IHAs. Last, NMFS will publish on our website a description of the renewal process before any renewal is issued utilizing the new process.

Description of Marine Mammals in the Area of Specified Activities

A detailed description of the species likely to be affected by the Port of San Francisco's MBFL and WTL project, including brief introductions to the species and relevant stocks as well as available information regarding population trends and threats, and information regarding local occurrence, were provided in the **Federal Register** notice for the proposed IHA (83 FR 42465; August 22, 2018); since that time, we are not aware of any changes in the status of these species and stocks; therefore, detailed descriptions are not provided here. Please refer to that **Federal Register** notice for these descriptions. Please also refer to NMFS' website (*https://www.fisheries.noaa.gov/find-species*) for generalized species accounts.

Table 2 lists all species with expected potential for occurrence in the Mission Bay/Central Waterfront area of San Francisco Bay and summarizes information related to the population or stock, including regulatory status under the MMPA and ESA and potential biological removal (PBR), where known. For taxonomy, we follow the Committee on Taxonomy (2017). 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's Stock Assessment Report (SAR)). While NMFS neither anticipates nor proposes to authorize mortality 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's 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's U.S. 2017 SAR (Carretta *et al.,* 2017). All values presented in Table 2 are the most recent available at the time of publication and are available in the 2017 SAR (Carretta *et al.,* 2017).

TABLE 2—MARINE MAMMALS IN THE PROJECT AREA

Common name	Scientific name	Stock	ESA/MMPA status; strategic (Y/N) [1]	Stock abundance (CV, N_{min}, most recent abundance survey) [2]	PBR	Annual M/SI [3]
Order Cetartiodactyla—Cetacea—Superfamily Mysticeti (baleen whales)						
Family Eschrichtiidae:						
Gray whale	*Eschrichtius robustus*	Eastern North Pacific	-/-; N	20,990 (0.05, 20,125, 2011).	624	132

TABLE 2—MARINE MAMMALS IN THE PROJECT AREA—Continued

Common name	Scientific name	Stock	ESA/ MMPA status; strategic (Y/N) [1]	Stock abundance (CV, N_{min}, most recent abundance survey) [2]	PBR	Annual M/SI [3]
Family Balaenopteridae (rorquals):						
Humpback whale	*Megaptera novaeangliae*	California/Oregon/Washington	E/D; Y	1,918 (0.03, 1,876, 2014)	11	>6.5
Superfamily Odontoceti (toothed whales, dolphins, and porpoises)						
Family Delphinidae:						
Bottlenose dolphin	*Tursiops truncatus*	California Coastal	-/-; N	453 (0.06, 346, 2011)	2.7	>2
Family Phocoenidae (porpoises):						
Harbor porpoise	*Phocoena phocoena*	San Francisco-Russian River	-/-; N	9,886 (0.51, 6,625, 2011)	66	0
Order Carnivora—Superfamily Pinnipedia						
Family Otariidae (eared seals and sea lions):						
California sea lion	*Zalophus californianus*	U.S.	-/-; N	296,750 (n/a, 153,337, 2011).	9,200	389
Northern fur seal	*Callorhinus ursinus*	California	-/-; N	14,050 (n/a, 7,524, 2013)	451	1.8
		Eastern North Pacific	-/-; N	626,734 (n.a., 530,474, 2014).	11,405	1.1
Guadalupe fur seal	*Arctocephalus townsendi*	Mexico to California	T/D; Y	20,000 (n/a, 15,830, 2010).	542	>3.2
Family Phocidae (earless seals):						
Pacific harbor seal	*Phoca vitulina richardii*	California	-/-; N	30,968 (n/a, 27,348, 2012).	1,641	43
Northern elephant seal	*Mirounga angustirostris*	California Breeding	-/-; N	179,000 (n/a, 81,368, 2010).	4,882	8.8

[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

[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.

Note: Italicized species are not expected to be taken or proposed for authorization.

All species that could potentially occur in the Port's proposed project area in San Francisco Bay are included in Table 2. However, the temporal and/or spatial occurrence of humpback whale and Guadalupe fur seal is such that take is not expected to occur, and they are not discussed further beyond the explanation provided here. Humpback whales are rare visitors to the interior of San Francisco Bay. A recent, seasonal influx of humpback whales inside San Francisco Bay near the Golden Gate was recorded from April to November in 2016 and 2017 (Keener 2017). The Golden Gate is outside of this project's action area and humpback whales are not expected to be present during the project. Guadalupe fur seals occasionally range into the waters of northern California and the Pacific Northwest. The Farallon Islands (off central California) and Channel Islands (off southern California) are used as haulouts during these movements (Simon 2016). Juvenile Guadalupe fur seals occasionally strand in the vicinity of San Francisco, especially during El Niño events. Most strandings along the California coast are animals younger than two years old, with evidence of malnutrition (NMFS 2017a). Because Guadalupe fur seals are rare in the area, and sightings are associated with abnormal weather conditions, such as El Niño events, NMFS has determined that no Guadalupe fur seals are likely to occur in the project vicinity and, therefore, no take is expected to occur.

Potential Effects of Specified Activities on Marine Mammals and Their Habitat

The effects of underwater noise from pile driving, pile removal, and drilling activities for the MBFL and WTL Project in San Francisco Bay, California have the potential to result in behavioral harassment of marine mammals in the vicinity of the action area. The **Federal Register** notice for the proposed IHA (83 FR 42465; August 22, 2018) included a discussion of the effects of anthropogenic noise on marine mammals, therefore that information is not repeated here; please refer to the **Federal Register** notice (83 FR 42465; August 22, 2018) for that information.

Anticipated Effects on Habitat

The main impact associated with the Port of San Francisco's MBFL and WTL project would be temporarily elevated sound levels and the associated direct effects on marine mammals. The project would not result in permanent impacts to habitats used directly by marine mammals, such as haulout sites, but may have potential short-term impacts to food sources such as forage fish, and minor impacts to the immediate substrate during installation/removal of piles and drilling during the MBFL and WTL project. These potential effects are discussed in detail in the **Federal Register** notice for the proposed IHA (83 FR 42465; August 22, 2018), therefore that information is not repeated here; please refer to that **Federal Register** notice for that information.

Estimated Take

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

After public comment and review of the proposed authorization, the following items have changed in the final authorization.

(1) The Level B harassment zone for drilling activities has decreased from 21,544 m to 15,849 m to account for an error that was present in the proposed IHA. During the drafting of the proposed IHA, the source level for drilling activities was reduced from 170 dB to 168 dB based on proxy data from the Alaska Department of Transportation (2016). The resulting Level B harassment zone was not updated from 21,544 m to 15,849 m until this error was noticed during public comment (Table 5).

(2) The Level B harassment zone for impact driving of 16-inch steel piles changed from 215 m to 136 m to account for an error that was present in the proposed IHA. This change resulted in a corresponding correction the ensonified area (Table 5).

(3) The Level B harassment zone for vibratory installation of 16-inch steel pipe piles was reduced from 21,544 m to 3,415 m. This change was to correct a misstatement in the proposed IHA. The original Level B harassment zone was stated as 21,544 m, when 3,415 m was the correct value for the given source level (158 dB SPL). This source level remains at 158 dB as presented in the proposed IHA, and the Level B harassment zone has been updated to match this source level with a corresponding correction to the ensonified area (Table 5).

(4) To correct errors present in the proposed IHA, duration estimates for some activities were updated. Updated activity durations included vibratory pile removal, vibratory pile installation of 36-inch steel piles, vibratory pile installation of 14-inch steel H piles, and down the hole drilling (Table 6). These changes were accompanied by corresponding but minor changes in Level A harassment zones (Table 7).

(5) Errors in calculation of takes by Level B harassment for harbor seal, California sea lion, and harbor porpoise were corrected, resulting in decreased take estimates. Take estimates for northern elephant seal and northern fur seal were increased from 1 to 3 individuals to account for the large Level B harassment zones for certain activities (Table 9).

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

Authorized takes would be by Level B harassment only, in the form of disruption of behavioral patterns for individual marine mammals resulting from exposure to acoustic sources. Based on the nature of the activity and the anticipated effectiveness of the mitigation measures (*i.e.,* use of a bubble curtain, wood cushion, and shutdown—discussed in detail below in the Mitigation Measures section), Level A harassment is neither anticipated nor authorized.

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

Generally speaking, we estimate take by considering: (1) Acoustic thresholds above which NMFS believes the best available science indicates marine mammals will be behaviorally harassed or incur some degree of permanent hearing impairment; (2) the area or volume of water that will be ensonified above these levels in a day; (3) the density or occurrence of marine mammals within these ensonified areas; and, (4) and the number of days of activities. We note that while these basic factors can contribute to a basic calculation to provide an initial prediction of takes, additional information that can qualitatively inform take estimates is also sometimes available (*e.g.,* previous monitoring results or average group size). Below, we describe these components in more detail and present the take estimate.

Acoustic Thresholds

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

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

The Port of San Francisco's activity includes the use of continuous (vibratory pile driving, down the hole drilling) and impulsive (impact pile driving) sources, and therefore the 120 and 160 dB re 1 μPa (rms) thresholds are applicable.

Level A harassment for non-explosive sources—NMFS' Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0) (NMFS, 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 Port of San Francisco's activity includes the use of impulsive (impact pile driving) and non-impulsive (vibratory pile driving) sources.

These thresholds are provided in Table 3 below. The references, analysis, and methodology used in the development of the thresholds are described in NMFS's 2018 Technical Guidance, which may be accessed at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance.*

TABLE 3—THRESHOLDS IDENTIFYING THE ONSET OF PERMANENT THRESHOLD SHIFT

Hearing group	PTS onset acoustic thresholds * (received level)	
	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.

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

Note: Peak sound pressure (L_{pk}) has a reference value of 1 µPa, and cumulative sound exposure level (L_E) has a reference value of 1 µPa^{2}s. In this Table, thresholds are abbreviated to reflect American National Standards Institute standards (ANSI 2013). However, peak sound pressure is defined by ANSI as incorporating frequency weighting, which is not the intent for this Technical Guidance. Hence, the subscript "flat" is being included to indicate peak sound pressure should be flat weighted or unweighted within the generalized hearing range. The subscript associated with cumulative sound exposure level thresholds indicates the designated marine mammal auditory weighting function (LF, MF, and HF cetaceans, and PW and OW pinnipeds) and that the recommended accumulation period is 24 hours. The cumulative sound exposure level thresholds could be exceeded in a multitude of ways (*i.e.,* varying exposure levels and durations, duty cycle). When possible, it is valuable for action proponents to indicate the conditions under which these acoustic thresholds will be exceeded.

Ensonified Area

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

Reference sound source levels used by the Port of San Francisco for all vibratory and impact piling/removal and drilling activities were derived from source level data from construction projects within Caltrans (2015) except for two cases noted below where Navy and Alaska Department of Transportation sources were used. To determine the ensonified areas for both the Level A and Level B harassment zones for vibratory piling of the 36-inch, 30-inch, and 16-inch steel piles and 14-inch steel H piles, the Port of San Francisco used sound pressure levels (SPL) of 170 dB re 1 µPa rms, 170 dB re 1 µPa rms, 158 dB re 1 µPa rms, and 158 dB re 1 µPa rms, respectively. These were derived from vibratory pile driving data of 36-inch (for 36-inch and 30-inch steel piles), 18-inch (for 16-inch steel piles) and 14-inch (for 14-inch steel H-pile) steel piles reported in the values listed in Table 1.2–2 and Table 1.2.3 of Caltrans (2015), and Table 6–1 of Navy (2017). For vibratory pile removal, the Port of San Francisco used an SPL of 155 dB re 1 µPa rms. This proxy source level was derived from vibratory pile driving data of 12-inch steel pipe piles in Caltrans (2015; Table 1.2–2). In addition, for down the hole drilling activities used to place 24-inch octagonal concrete piles, an SPL of 168 dB was used, corresponding to the mean SPL reported in Table 72 of the Alaska Department of Transportation (2016) hydroacoustic report.

For impact pile driving, the Port of San Francisco used both SPLs and sound exposure levels (SEL) derived from summary source level values reported in Caltrans (2015). These source levels were then reduced by 7 dB due to the Port of San Francisco's use of a bubble curtain. NMFS used a reduction value of 7 dB as it was roughly the average sound reduction value derived from sound measurements of piles that used bubble curtains within Caltrans (2015). For piling of 36-inch steel piles, a source level of 183 dB SEL was chosen as a proxy value for modeling Level A harassment zones (Caltrans 2015, Table 1.2–1). This source level was reduced to 176 dB SEL with the 7 dB reduction. For piling of 20-inch concrete piles, a source level of 167 dB SEL was chosen as a proxy value for modeling Level A harassment zones (Caltrans 2015, Table 1.5–4, reported from 24-inch concrete pile measurements at a project in the Port of Oakland). This source level was selected as a proxy because of the proximity of the Port of Oakland project to the proposed work and it is more conservative than Caltrans (2015) summary value reported in Table 1.2–1. This source level was reduced to 160 dB SEL with the 7 dB reduction. In addition, for impact piling of 16-inch steel piles, a source level of 158 dB SEL was chosen as a proxy value for modeling Level A harassment zones (Caltrans 2015, Table I.2–1). This source level was reduced to 151 dB SEL with the 7 dB reduction. The stated source levels and their corresponding activity are presented in Table 4 below.

TABLE 4—PROJECT SOURCE LEVELS

Activity	Source level at 10 meters (dB)
Vibratory Pile Driving/Removal:	
36-inch steel pile installation	170 SPL
30-inch steel pile installation (Caisson)	170 SPL
14-inch steel H pile installation	158 SPL
Removal of pre-existing piles	155 SPL
16-inch steel pile installation	158 SPL
Impact Pile Driving: *	
36-inch steel pile installation	176 SEL/186 SPL
20-inch concrete pile installation	160 SEL/172 SPL
16-inch steel pile installation	151 SEL/177 SPL
Down the Hole Drilling:	

TABLE 4—PROJECT SOURCE LEVELS—Continued

Activity	Source level at 10 meters (dB)
24-inch Octagonal Concrete (drilling of 30-inch hole)	168 SPL

* The values in the cells reflect a 7dB reduction due to the Port of San Francisco's use of a bubble curtain.

Level B Harassment Zones

The practical spreading model was used by the Port of San Francisco to generate the Level B harassment zones for all piling/removal activities. Practical spreading is described in full detail below.

Pile driving and drilling generates underwater noise that can potentially result in disturbance to marine mammals in the project area. 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:

$TL = B * \log_{10} (R1/R2)$,

Where

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. Spherical spreading occurs in a perfectly unobstructed (free-field) environment not limited by depth or water surface, resulting in a 6 dB reduction in sound level for each doubling of distance from the source (20 * log[range]). Cylindrical spreading occurs in an environment in which sound propagation is bounded by the water surface and sea bottom, resulting in a reduction of 3 dB in sound level for each doubling of distance from the source (10 * log[range]). A practical spreading value of 15 is often used under conditions where water increases with depth as the receiver moves away from the shoreline, resulting in an expected propagation environment that would lie between spherical and cylindrical spreading loss conditions.

Utilizing the practical spreading loss model, the Port of San Francisco determined underwater noise will fall below the behavioral effects threshold of 120 dB rms for marine mammals at a maximum radial distance of 21,544 m for vibratory piling (36 and 30-inch steel piles) and 15,849 m for drilling ((24-inch octagonal concrete pile). The maximum Level B harassment zone for this activity will therefore be set at 21,544 m. However, previous sound monitoring for other projects in San Francisco Bay (*i.e.* Caltrans 2015; 2016) have shown background sound levels in the active portions of the Bay, near the project area, to range from 110 to 140 dB rms, with typical background levels in the range of 110 to 120 dB rms. This ambient noise may affect the ability to distinguish sound from vibratory pile driving in the region (Rodkin, 2009), but direct applicability of that finding to the Port's work is unknown, and therefore no reduction in Level B harassment zone is applied. The maximum radial distance of the Level B harassment zone for impact pile driving equaled 541.2 m (impact driving 36-inch steel piles). At this radial distance, the entire Level B harassment zone for impact piling equaled 0.3699 square kilometers (km^2). This ensonified area is based on a GIS map of the area accounting for structures and landmasses which would block sound spreading (Please see Figure 9 of the Application). Table 5 below provides all Level B radial distances and their corresponding areas for each activity during the Port of San Francisco's project. Level B harassment zone areas are calculated using a GIS map (See Figure 9 of the Application).

TABLE 5—LEVEL B HARASSMENT ZONES CALCULATED USING THE PRACTICAL SPREADING MODEL

Source	Calculated distance to Level B threshold (meters)	Level B harassment zone (square kilometers km^2)
Vibratory Pile Driving		
36-inch steel pile installation	21,544	47.1608
30-inch steel pile installation	21,544	47.1608
16-inch steel pile installation	3,415	7.6431
14-inch steel H pile installation	3,415	7.6431
Removal of pre-existing concrete and wood piles	2,154	3.1511
Impact Pile Driving		
36-inch steel pile installation	541.2	0.36993
20-inch concrete pile installation	63.1	0.006650
16-inch steel pile installation	136	0.0291
Down the Hole Drilling		
	15,849	47.1608

Level A Harassment Zones

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

TABLE 6—PARAMETERS OF PILE DRIVING AND DRILLING ACTIVITY

Equipment type	Vibratory pile driver (removal of concrete and wood piles)	Vibratory pile driver (installation of 36-inch steel piles)	Vibratory pile driver (installation of 30-inch steel piles)	Vibratory pile driver (installation of 16-inch steel piles)	Vibratory pile driver (installation of 14-inch steel H piles)	Impact pile driver (36-inch steel piles)	Impact pile driver (20-inch concrete piles)	Impact pile driver (16-inch steel piles)	Drilling (24-inch octagonal concrete pile)
Spreadsheet Tab Used.	Non-impulsive, continuous.	Non-impulsive, continuous.	Non-impulsive, continuous.	Non-impulsive, continuous.	Non-impulsive, continuous.	Impulsive, Non-continuous.	Impulsive, Non-continuous.	Impulsive, Non-continuous.	Non-impulsive, continuous.
Source Level	155 SPL	170 SPL	170 SPL	158 SPL	158 SPL	176 SEL*	160 SEL*	151 SEL*	168 SPL.
Weighting Factor Adjustment (kHz).	2.5	2.5	2.5	2.5	2.5	2	2	2	2.
(a) Activity duration (hours) within 24 hours, (b) Number of strikes per pile, (c) Number of piles per day.	(a) 0.66	(a) 1.33	(a) 0.25	(a) 0.33	(a) 0.66	(b) 150, (c) 4	(b) 500, (c) 4	(b) 500, (c) 2	(a) 5.5.
Propagation (xLogR).	15	15	15	15	15	15	15	15	15.
Distance of source level measurement (meters) +.	10	10	10	10	10	10	10	10	10.

*Displayed source values include the 7 dB reduction for use of a bubble curtain.

TABLE 7—LEVEL A HARASSMENT ZONE ISOPLETH AND ENSONIFIED AREA FOR PILE DRIVING AND DRILLING

Source type	PTS isopleth (meters)				
	Low-frequency cetaceans	Mid-frequency cetaceans	High-frequency cetaceans	Phocid pinnipeds	Otariid pinnipeds
Vibratory Pile Driver (Removal of concrete and wood piles)	1.5	0.1	2.2	0.9	0.1
Vibratory Pile Driver (Installation of 36-inch steel piles)	32.9	2.9	48.7	20.0	1.4
Vibratory Pile Driver (Installation of 30-inch steel piles)	10.8	1.0	16.0	6.6	0.5
Vibratory Pile Driver (Installation of 14-inch steel H piles)	3.3	0.3	4.9	2.0	0.1
Vibratory Pile Driver (Installation of 16-inch steel H piles)	2.1	0.2	3.0	1.3	0.1
Impact Pile Driver (36-inch steel piles)	242.6	8.6	288.9	129.8	9.5
Impact Pile Driver (20-inch concrete piles)	46.4	1.7	55.3	24.8	1.8
Impact Pile Driver (16-inch steel piles)	7.3	0.3	8.8	3.9	0.3
Drilling(24-inch octagonal concrete pile)	62.7	3.5	54.9	33.5	2.4
Daily ensonified area (m^2)					
Vibratory Pile Driver (Removal of concrete and wood piles)	3.5	0.02	7.6	1.3	0.02
Vibratory Pile Driver (Installation of 36-inch steel piles)	1,700	13	3,730	628	3.1
Vibratory Pile Driver (Installation of 30-inch steel piles)	183	1.6	402	68	0.4
Vibratory Pile Driver (Installation of 14-inch steel H piles)	17	0.14	37	6.3	0.02
Vibratory Pile Driver (Installation of 16-inch steel H piles)	6.9	0.06	14	2.7	0.02
Impact Pile Driver (36-inch steel piles)	92,450	120	131,100	26,460	140
Impact Pile Driver (20-inch concrete piles)	3,380	4.5	4,800	966	5.1
Impact Pile Driver (16-inch steel piles)	84	0.1	120	24	0.1
Drilling(24-inch octagonal concrete pile)	6,180	19	4,730	1,760	9.0

Marine Mammal Occurrence

In this section we provide the information about the presence, density, or group dynamics of marine mammals that will inform the take calculations.

No systematic line transect surveys of marine mammals have been performed in San Francisco Bay. Therefore, the in-water densities of harbor seals, California sea lions, and harbor porpoises were calculated based on 17 years of observations during monitoring for the San Francisco Bay-Oakland Bay Bridge (SFOBB) construction and demolition project (Caltrans 2018). Care was taken to eliminate multiple observations of the same animal, although this can be difficult and is likely that the same individual may have been counted multiple times on the same day. The amount of monitoring

performed per year varied, depending on the frequency and duration of construction activities with the potential to affect marine mammals. During the 257 days of monitoring from 2000 through 2017 (including 15 days of baseline monitoring in 2003), 1,029 harbor seals, 83 California sea lions, and 24 harbor porpoises were observed in waters in the project vicinity in total. In 2015, 2016, and 2017, the number of harbor seals in the project area increased significantly. In 2017, the number of harbor porpoise in the project area also increased significantly. Therefore, a harbor seal density estimate was calculated using the 2015–2017 data, and a harbor porpoise density estimate was calculated using the 2017 data, which may better reflect the current use of the project area by these animals. These observations included data from baseline, pre-, during, and post-pile driving, mechanical dismantling, on-shore blasting, and off-shore implosion activities.

Insufficient sighting data exist to estimate the density of bottlenose dolphins. However, a single bottlenose dolphin has been observed regularly near the project site. One individual was documented regularly, through photo ID, over several months off the coast of the former Alameda Air Station (Perlman 2017).

Insufficient sighting data exist to estimate elephant seal densities in the Bay. Generally, only juvenile elephant seals enter the Bay and do not remain long. The most recent sighting near the project area was in 2012, on the beach at Clipper Cove on Treasure Island, when a healthy yearling elephant seal hauled out for approximately 1 day. Approximately 100 juvenile northern elephant seals strand in or near the Bay each year, including individual strandings at Yerba Buena Island and Treasure Island (less than 10 strandings per year).

In addition, insufficient sighting data exist to estimate northern fur seal and gray whale densities in the Bay. Only two to four northern fur seals strand in the Bay each year, and they are unlikely to occur in the project area. Also, during the Caltrans Richmond-San Rafael Bridge project, monitors recorded 12 living and two dead gray whales in the surveys performed in 2012. All sightings were in either the Central or North Bay, and all but two sightings occurred during the months of April and May. One gray whale was sighted in June and one in October. The Oceanic Society has tracked gray whale sightings since they began returning to San Francisco Bay regularly in the late 1990s. Most sightings occurred just a mile or two inside of the Golden Gate, with some traveling into San Pablo Bay in the northern part of the San Francisco Bay (Self 2012). The Oceanic Society data show that all age classes of gray whales enter San Francisco Bay and they enter as singles or in groups of up to five individuals (Winning 2008). It is estimated that two to six gray whales enter San Francisco Bay in any given year.

Numbers used for density calculations are shown in Table 8. These numbers were calculated from observations in nearby waters of the San Francisco Bay during San Francisco-Oakland Bay Bridge construction conducted by Caltrans (Caltrans 2018). These observations occurred from 2000 to 2017 in a 2 km^2 monitoring zone for California sea lions, from 2015–2017 in a 2 km^2 monitoring zone for harbor seals, and in 2017 in a 15 km^2 zone for harbor porpoise. In the cases where densities were refined to capture a narrower range of years to be conservative, bold densities were used for take calculations.

TABLE 8—ESTIMATED IN-WATER DENSITY OF MARINE MAMMAL SPECIES IN SAN FRANCISCO BAY AREA

[Caltrans 2017]

Species observed	Area of monitoring zone (km^2)	Days of monitoring	Number of animals observed	Density animals/km^2
Harbor seals 2000–2017	2	257	1,029	2.002.
Harbor Seals 2015–2017	2	47	372	**3.957**.
California Sea Lions 2000–2017	2	257	83	**0.161**.
Bottlenose Dolphins 2017	2	6	2	Insufficient sighting data exists to estimate density.
Harbor Porpoise 2000–2017	3	257	24	0.031.
Harbor Porpoise 2017	15	6	15	**0.167**.
Elephant Seal 2000–2017	2	257	0	Insufficient sighting data exists to estimate density.
Northern Fur Seal 2000–2017	2	257	0	Insufficient sighting data exists to estimate density.
Gray Whale 2000–2017	2	257	0	Insufficient sighting data exists to estimate density.

Notes:
Densities for Pacific harbor seals, California sea lions, and harbor porpoises are based on monitoring for the east span of the SFOBB from 2000 to 2017.
A second set of Pacific harbor seal densities were calculated from the increase in sightings recorded from 2015 to 2017.
A second set of harbor porpoise densities were calculated for the increase in sightings that were recorded in 2017.
Bold densities were used for take calculations.
Sources: CalTrans 2001, 2004b, 2013b, 2013c, 2014, 2015b, 2016, 2017; Perlman 2017.

For species without enough sightings to construct a density estimate, we used information based on group size and frequency of sightings from previous years of work to inform the number of animals estimated to be taken, which is detailed in the Take Estimation section below.

Take Calculation and Estimation

Here we describe how the information provided above is brought together to produce a quantitative take estimate.

When density data was available, Level B take for the project was calculated by multiplying the density times the largest Level B harassment zone (km^2) times the number of construction days. Since density data was only available for harbor seals,

harbor porpoises, and California sea lions, these were the only species whose take was calculated used this methodology. Table 9 shows the number of take calculated for species with density and without density estimates. For species without density information, information on average group size of the species was used. This is discussed below Table 9.

TABLE 9—TAKE ESTIMATES AS A PERCENTAGE OF STOCK ABUNDANCE

Species	Density animals/km^2	Level B harassment zone (km^2) [1]	Construction days [2]	Proposed Level B take	Percentage of stock
Harbor Seal	3.957	47.1608	15	2,799	9.0
California Sea Lions	0.161	47.1608	15	114	0.038
Harbor Porpoise	0.167	47.1608	15	118	1.2
Northern Elephant Seal	Insufficient sighting data exists to estimate density.	47.1608	15	3	0.0034
Northern Fur Seal	Insufficient sighting data exists to estimate density.	47.1608	15	3	0.0005
Gray Whale	Insufficient sighting data exists to estimate density.	47.1608	15	3	0.014
Bottlenose Dolphin	Insufficient sighting data exists to estimate density.	47.1608	15	15	3.3

[1] Represents area of largest Level B harassment zone during pile driving/removal and drilling activities.
[2] Total construction days for pile driving/removal and drilling.

Gray Whale

Gray whales occasionally enter San Francisco Bay during their northward migration period of February and March. Pile driving and drilling are not proposed to occur during this time and gray whales are not likely to be present at other times of the year. It is estimated that two to six gray whales enter the Bay in any given year, but they are unlikely to be present during the work period (June 1 through November 30). However, individual gray whales have occasionally been observed in San Francisco Bay during the work period, and therefore it is conservatively estimated that, at most, 3 gray whales, or one average sized group, may be exposed to Level B harassment during the 15 days of pile driving/drilling.

Bottlenose Dolphin

When bottlenose dolphins are present in San Francisco Bay, they are more typically found close to the Golden Gate. Recently, beginning in 2015, two individuals have been observed frequently in the vicinity of Oyster Point (GGCR 2016, 2017; Perlman 2017) and one individual has been observed near Alameda (GGCR 2016). Observations of bottlenose dolphins are primarily west of Treasure Island and concentrated along the nearshore areas of San Francisco south to Redwood City (Caltrans 2018). Bottlenose dolphins rarely occur in San Francisco Bay, but given the size of the Level B harassment zone NMFS authorizes take of 15 bottlenose dolphins by level B harassment.

Northern Fur Seal

Observations of northern fur seals are too few to establish a density for this species in San Francisco Bay. The Marine Mammal Center (TMMC) reported only two to four northern fur seal strandings in the Bay in 2015 and 2016 (in Marin, San Francisco, and Santa Clara counties) (TMMC 2017). To account for the possible rare presence of the species in the action area, NMFS authorizes three takes by Level B harassment of northern fur seal.

Northern Elephant Seal

Elephant seals breed between December and March and have been rarely cited in San Francisco Bay. It is anticipated that if an elephant seal is encountered at all during pile driving or drilling it would be a juvenile. To account for the possible rare presence of the species in the action area, NMFS authorizes three takes by Level B harassment of elephant seal.

Level A Harassment

High frequency cetaceans (including harbor porpoise) have the largest Level A harassment zone resulting from this project as shown in Table 7. Estimated take by Level A harassment for harbor porpoise, based on density reported in Table 8 and the Level A harassment zone, is less than one individual (Density * Days * Ensonified Area). Given the required mitigation measures, including shutdown zones which exceed the Level A harassment zone, NMFS authorizes no Level A harassment for harbor porpoise or any marine mammal.

Mitigation Measures

The only change to mitigation measures were updates to the minimum shutdown zones to reflect the changes in Level A harassment zones discussed in the previous section.

In order to issue an IHA under Section 101(a)(5)(D) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to such activity, and other means of effecting the least practicable impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stock for taking for certain subsistence uses (latter not applicable for this action). NMFS regulations require applicants for incidental take authorizations to include information about the availability and feasibility (economic and technological) of equipment, methods, and manner of conducting such activity or other means of effecting the least practicable adverse impact upon the affected species or stocks and their habitat (50 CFR 216.104(a)(11)).

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

(1) The manner in which, and the degree to which, the successful implementation of the measure(s) is expected to reduce impacts to marine mammals, marine mammal species or stocks, and their habitat. This considers the nature of the potential adverse

impact being mitigated (likelihood, scope, range). It further considers the likelihood that the measure will be effective if implemented (probability of accomplishing the mitigating result if implemented as planned) the likelihood of effective implementation (probability implemented as planned); and

(2) The practicability of the measures for applicant implementation, which may consider such things as cost, impact on operations.

In addition to the specific measures described later in this section, the Port must conduct briefings for construction supervisors and crews, the monitoring team, and Port staff prior to the start of all pile driving activity, and when new personnel join the work, in order to explain responsibilities, communication procedures, the marine mammal monitoring protocol, and operational procedures.

Timing Restrictions

All work will be conducted during daylight hours. If poor environmental conditions restrict full visibility of the shutdown zone, pile installation would be delayed.

Sound Attenuation

Sound attenuation methods, including a bubble curtain, will be implemented for the duration of impact pile driving to install 36-inch and 16-inch steel and 20-inch concrete piles. Additionally, a caisson sleeve will be used during down the whole drilling. The Port shall implement the following bubble curtain performance standards:

- The bubble curtain must distribute air bubbles around 100 percent of the piling perimeter for the full depth of the water column;
- The lowest bubble ring shall be in contact with the mudline for the full circumference of the ring, and the weights attached to the bottom ring shall ensure 100 percent mudline contact. No parts of the ring or other objects shall prevent full mudline contact;
- The selected contractor will ensure that personnel are trained in the proper balancing of air flow to the bubblers and shall require that construction contractors submit an inspection/performance report for approval by the Port of San Francisco within 72 hours following the performance test. Corrections to the attenuation device to meet the performance standards shall occur prior to impact driving.

Shutdown Zone For In-Water Heavy Machinery Work

For in-water heavy machinery work (using, *e.g.,* standard barges, tug boats, barge-mounted excavators, or clamshell equipment used to place or remove material), a minimum 10 meter shutdown zone shall be implemented. If a marine mammal comes within 10 m of such operations, operations shall cease and vessels shall reduce speed to the minimum level required to maintain steerage and safe working conditions. This type of work could include (but is not limited to) the following activities: (1) Vibratory pile driving; (2) movement of the barge to the pile location; (3) positioning of the pile on the substrate via a crane (*i.e.,* stabbing the pile); or (4) removal of the pile from the water column/substrate via a crane (*i.e.,* deadpull).

Additional Shutdown Zones

For all pile driving/removal and drilling activities, The Port of San Francisco will establish a shutdown zone for a marine mammal species that is greater than its corresponding Level A harassment zone. The purpose of a shutdown zone is generally to define an area within which shutdown of the activity would occur upon sighting of a marine mammal (or in anticipation of an animal entering the defined area). The shutdown zones for each of the pile driving and drilling activities are listed below in Table 10.

TABLE 10—SHUTDOWN ZONES

Source	Shutdown zones (meters)				
	Low-frequency cetaceans (humpback whale, minke whale)	Mid-frequency cetaceans (Pacific-white sided dolphin)	High-frequency cetaceans (Dall's porpoise, harbor porpoise)	Phocid (harbor seal)	Otariid (sea lion)
In-Water Construction Activities *					
In Water Heavy Construction (*i.e.,* Barge movements, pile positioning, deadpulling, and sound attenuation)	10	10	10	10	10
Vibratory Pile Driving					
Vibratory Pile Driver (Removal of concrete and wood piles)	10	10	10	10	10
Vibratory Pile Driver (Installation of 14-inch steel H piles)	10	10	10	10	10
Vibratory Pile Driver (Installation of 16-inch steel H piles)	10	10	10	10	10
Vibratory Pile Driver (Installation of 30-inch steel piles)	25	10	25	10	10
Vibratory Pile Driver (Installation of 36-inch steel piles)	50	10	75	25	10
Impact Pile Driving					
Impact Pile Driver (16-inch steel piles)	10	10	10	10	10
Impact Pile Driver (20-inch concrete piles)	75	10	75	30	10
Impact Pile Driver (36-inch steel piles)	300	25	300	150	25
Drilling					
24-inch concrete pile (1 pile) (5.5 hours per day)	75	10	50	20	10

Monitoring Zones

The Port of San Francisco will establish and observe a monitoring zone. The monitoring zones for this project will differ based on activity. For vibratory pile driving and down the hole drilling, it may not be possible to observe the entire Level B harassment zones (areas where SPLs are equal to or exceed 120 dB rms) due to their size. The Port is expected to monitor and record observations in the largest reasonable portion of this Level B harassment zone based on the number of observers and visibility, but conditions may require efforts to be focused in a smaller monitoring zone. For impact pile driving, the monitoring zones are areas where SPLs are equal to or exceed 160 dB rms. For vibratory pile driving/drilling and impact pile driving the Level B Harassment zones are presented in Table 11 below. For the vibratory pile driving and drilling activities, it is noted that Level B harassment zone radius and area will not necessarily equal the monitoring zone. These zones provide utility for monitoring conducted for mitigation purposes (*i.e.,* shutdown zone monitoring) by establishing monitoring protocols for areas adjacent to the shutdown zones. Monitoring of disturbance zones enables observers to be aware of and communicate the presence of marine mammals in the project area, but outside the shutdown zone, and thus prepare for potential shutdowns of activity. However, the primary purpose of disturbance zone monitoring is for documenting instances of Level B harassment; disturbance zone monitoring is discussed in detail later (see Monitoring and Reporting).

TABLE 11—MONITORING ZONES

Source	Radial Distance to Level B threshold (meters)	Level B Harassment Zone (km^2)
Vibratory Pile Driving		
36-inch steel pile installation	*21,544	*47.1608
30-inch steel pile installation	*21,544	*47.1608
16-inch steel pile installation	*3,415	*7.6431
14-inch steel H pile installation	*3,415	*7.6431
Removal of pre-existing concrete and wood piles	*2,154	*3.1511
Impact Pile Driving		
36-inch steel pile installation	541.2	0.3699
20-inch concrete pile installation	63.1	0.006650
16-inch steel pile installation	136	0.0291
Down the Hole Drilling		
	*15,849	*47.1608

*The monitored radius and area of the Level B harassment zone may vary based on visibility.

Non-Authorized Take Prohibited

If a species enters or approaches the Level B harassment zone and that species is either not authorized for take or its authorized takes are met, pile driving, pile removal, and drilling activities must shut down immediately using delay and shut-down procedures. Activities must not resume until the animal has been confirmed to have left the area or an observation time period of 15 minutes has elapsed.

Soft Start

The use of a soft-start procedure is believed to provide additional protection to marine mammals by providing warning and/or giving marine mammals a chance to leave the area prior to the impact hammer operating at full capacity. For impact pile driving, contractors will be required to provide an initial set of strikes from the hammer at 40 percent energy, each strike followed by no less than a 30-second waiting period. This procedure will be conducted a total of three times before impact pile driving begins. This soft start procedure must be implemented at the start of a day's impact pile driving and at any time following cessation of impact driving of 30 minutes or greater. Soft start is not required during vibratory pile driving/removal or drilling activities.

Pre-Activity Monitoring

Prior to the start of daily in-water construction activity, or whenever a break in pile driving or drilling of 30 minutes or longer occurs, the observer will observe the shutdown and monitoring zones for a period of 30 minutes. The shutdown zone will be cleared when a marine mammal has not been observed within the zone for that 30-minute period. A determination that the shutdown zone is clear must be made during a period of good visibility (*i.e.,* the entire shutdown zone and surrounding waters must be visible to the naked eye). If a marine mammal is observed within the shutdown zone, a soft-start cannot proceed until the animal has left the zone or has not been observed for 15 minutes. If the monitoring zone has been observed for 30 minutes and non-permitted species are not present within the zone, soft start procedures can commence and work can continue even if visibility becomes impaired within the monitoring zone. When a marine mammal permitted for take by Level B harassment is present in the monitoring zone, pile driving, pile removal, and drilling activities may begin and take by Level B harassment will be recorded. As stated above, if the entire Level B harassment zone is not visible at the start of construction, piling or drilling activities can begin. If work ceases for more than 30 minutes, the pre-activity monitoring of both the monitoring zone and shutdown zone will commence.

Based on our evaluation of the applicant's mitigation measures, as well as other measures considered by NMFS, NMFS has determined that the mitigation measures provide the means effecting the least practicable impact on

the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

Monitoring and Reporting

Between the proposed IHA and final IHA, the only change to monitoring and reporting protocols were a decrease in the required minimum number of protected species observers (PSOs) from two to one. To minimize the burden of monitoring on the applicant, two PSOs will be used for the first week of the project. Later portions of the project will utilize one PSO if monitoring results up to that point have not shown unexpectedly high numbers of marine mammals. NMFS determined that one PSO is sufficient to effectively observe the shutdown zones and a portion of the monitoring zone. This level of observation minimized burden on the applicant while still ensuring effective monitoring. Additionally, the use of two PSOs for a portion of the project will increase understanding of the impacts of this and similar projects on marine mammals in San Francisco Bay, while not placing an excessive burden on the Port of San Francisco.

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

Hydroacoustic Monitoring

The Port recognizes in their application the need to implement a sound monitoring plan (SMP) as required by the Regional NMFS and U.S. Army Corps of Engineers programmatic review for pile driving activities in San Francisco Bay. The Port indicates that this SMP will recommend sound monitoring stations at 10 m, 100 m, and 300 m to monitor ambient noise conditions in the area. NMFS feels that ambient noise measurements are highly specific to the time and place they were taken, and therefore might have limited use to future projects. However, there are few source level measurements for down the hole drilling activities, as shown by the use of Alaska DOT proxy data in this IHA. NMFS feels that rigorous hydroacoustic monitoring of source level for the down the hole drilling activity will be more beneficial for future projects in this region and others. While NMFS is not requiring these source level measurements, if the Port were already planning to conduct measurements, we recommend focusing on source level verification and could offer guidance on its implementation.

Visual Monitoring

Monitoring would be conducted 30 minutes before, during, and 30 minutes after all pile driving/removal and drilling activities. In addition, observers shall record all incidents of marine mammal occurrence, regardless of distance from activity, and shall document any behavioral reactions in concert with distance from piles being driven, removed, or pile holes being drilled. Pile driving and drilling activities include the time to install, remove, or drill a hole for a single pile or series of piles, as long as the time elapsed between uses of the pile driving equipment is no more than thirty minutes.

Monitoring will be conducted by NMFS approved PSOs. There will be a minimum of one PSO during all pile driving/removal and drilling activities. Two PSOs will be required to observe the shutdown and disturbance zones for the first five (5) days of combined pile driving, pile removal, and drilling.

PSOs shall scan the waters using binoculars, and/or spotting scopes, and shall use a handheld GPS or range-finder device to verify the distance to each sighting from the project site. All PSOs shall be trained in marine mammal identification and behaviors and are required to have no other project-related tasks while conducting monitoring. In addition, monitoring shall be conducted by qualified observers, who shall be placed at the best vantage point(s) practicable to monitor for marine mammals and implement shutdown/delay procedures when applicable by calling for the shutdown to the hammer operator. Qualified observers are trained and/or experienced professionals, with the following minimum qualifications:

i. At least one PSO must have prior experience working as a marine mammal observer during construction activities;

- Independent observers (*i.e.,* not construction personnel);

ii. Other PSOs may substitute education (degree in biological science or related field) or training for experience;

iii. Where a team of three or more PSOs are required, a lead observer or monitoring coordinator shall be designated. The lead observer must have prior experience working as a marine mammal observer during construction;

iv. The Port of San Francisco shall submit PSO CVs for approval by NMFS;

The Port of San Francisco shall ensure that observers 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;
- Ability to conduct field observations and collect data according to assigned protocols;
- Experience or training in the field identification of marine mammals, including the identification of behaviors;
- 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;

- 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; and
- Sufficient training, orientation, or experience with the construction operations to provide for personal safety during observations.

The Port of San Francisco shall submit a draft report to NMFS not later than 90 days following the end of construction activities. The Port of San Francisco shall provide a final report within 30 days following resolution of NMFS' comments on the draft report. Reports shall contain, at minimum, the following:

- Date and time that monitored activity begins and ends for each day conducted (monitoring period);
- Construction activities occurring during each daily observation period, including how many and what type of piles driven;
- Deviation from initial proposal in pile numbers, pile types, average driving times, etc.;
- Weather parameters in each monitoring period (*e.g.,* wind speed, percent cloud cover, visibility);
- Water conditions in each monitoring period (*e.g.,* sea state, tide state);
- Extrapolated estimates of the total observed Level B harassment takes based on the percentage of the Level B harassment zone that was not visible or was not monitored.
- For each marine mammal sighting:
  - Species, numbers, and, if possible, sex and age class of marine mammals;
  - Description of any observable marine mammal behavior patterns, including bearing and direction of travel and distance from pile driving activity;
  - Location and distance from pile driving activities to marine mammals and distance from the marine mammals to the observation point;
  - Estimated amount of time that the animals remained in the Level B harassment zone;
  - Description of implementation of mitigation measures within each monitoring period (*e.g.,* shutdown or delay);
  - Other human activity in the area within each monitoring period; and
  - A summary of the following:
    - Total number of individuals of each species detected within the monitoring zone, and estimated as taken if correction factor appropriate;
    - Total number of individuals of each species detected within the Level A harassment zone and the average amount of time that they remained in that zone; and
    - Daily average number of individuals of each species (differentiated by month as appropriate) detected within the monitoring zone, and estimated as taken, if appropriate.

Negligible Impact Analysis and Determination

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

As stated in the mitigation section, bubble curtains will be used and shutdown zones that encompass the area in which Level A harassment might be expected to occur will be implemented. As a result, no take by Level A harassment is expected nor authorized for this activity. Exposures to elevated sound levels produced during pile driving activities may cause behavioral responses by an animal, but they are expected to be mild and temporary. Effects on individuals that are taken by Level B harassment, on the basis of reports in the literature as well as monitoring from other similar activities, will likely be limited to reactions such as increased swimming speeds, increased surfacing time, or decreased foraging (if such activity were occurring) (*e.g.,* Thorson and Reyff, 2006; Lerma, 2014). 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. These reactions and behavioral changes are expected to subside quickly when the exposures cease. Within the project area, there are no critical habitats or other biologically important areas (Calambokidis *et al.,* 2015). The area is an active commercial port, and while harbor seals, California sea lions, and other marine mammals may be present, the area is not an established rookery or breeding ground for local populations.

During all impact driving, implementation of soft start procedures, the use of a bubble curtain, and monitoring of established shutdown zones will be required. Given sufficient notice through use of soft start (for impact driving), marine mammals are expected to move away from an irritating sound source prior to it becoming potentially injurious. In addition, PSOs will be stationed within the action area whenever pile driving/removal and drilling operations are underway. Depending on the activity, The Port of San Francisco will employ the use of at least one PSO to monitor shutdown and monitoring zones.

Although the MBFL and WTL Project would have some permanent removal of habitat available to marine mammals, the area lost would be negligible. Construction of the MBFL and WTL structures and dredging for the project will result in the disturbance of up to approximately 8.4 acres of predominantly fine-grained sediment and the associated benthic infaunal community. Total habitat disturbed from the project activities is estimated at 0.000071 percent of the total South San Francisco Bay subtidal habitat available (NOAA 2007). This is a relatively small fraction of area relative to the total available habitat for foraging and transit for marine mammals. In addition, to minimize impacts, in-water construction will be limited to locally established environmental work windows between June and November.

Overall, impacts to marine mammals and prey species due to the Mission Bay Ferry and Water Taxi Landing Project are expected to be minor and temporary. The area impacted by the project is very

small compared to the available habitat around San Francisco Bay. The most likely impact to prey will be temporary behavioral avoidance of the immediate area. During pile driving and drilling, it is expected that fish and marine mammals would temporarily move to nearby locations and return to the area following cessation of in-water construction activities. Therefore, indirect effects on marine mammal prey during the construction are not expected to be substantial.

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

- Mortality is not anticipated or authorized;
- Minimal impacts to marine mammal habitat are expected;
- Bubble curtain and other sound attenuating devices are used during impact pile driving will lessen the amount of behavioral disturbance and contribute to the alleviation of the likelihood of injury;
- Impacts are not occurring in rookeries, or known areas or features of special significance for foraging or reproduction in the project area;
- Anticipated incidents of Level B harassment consist of, at worst, temporary modifications in behavior; and
- Required mitigation measures (*i.e.,* shutdown zones) are expected to be effective in reducing the effects of the specified activity.

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

Small Numbers

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

Take for all species authorized except harbor seal is less than five percent of their respective stock abundance. For harbor seal, the authorized take is less than 10 percent of the stock abundance. Based on this and the analysis contained herein of the proposed activity (including the proposed mitigation and monitoring measures) and the anticipated take of marine mammals, NMFS finds that small numbers of marine mammals will be taken relative to the population size of the affected species or stocks.

Unmitigable Adverse Impact Analysis and Determination

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.

National Environmental Policy Act

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

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

Endangered Species Act (ESA)

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.

Dated: October 16, 2018.

Catherine Marzin,

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

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XG575

South Atlantic Fishery Management Council; Public Meetings

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

ACTION: Notice of public meetings.

SUMMARY: The South Atlantic Fishery Management Council (Council) will hold a meeting of its Habitat Protection and Ecosystem-Based Management Advisory Panel (AP).

DATES: The Habitat Protection and Ecosystem-Based Management AP meeting will take place November 6, 2018, from 9 a.m. to 4:30 p.m., November 7, 2018, from 9 a.m. until 4:30 p.m., and November 8, 2018, from 9 a.m. until 12 p.m.

ADDRESSES:

Meeting address: The meetings will be held at the Sirata Beach Resort and Conference Center, 5300 Gulf Boulevard, St. Petersburg, FL 33706; phone: (727) 363–5100.

Council address: South Atlantic Fishery Management Council, 4055 Faber Place Drive, Suite 201, N Charleston, SC 29405.

FOR FURTHER INFORMATION CONTACT: Kim Iverson, Public Information Officer, SAFMC; phone: (843) 571–4366 or toll free (866) SAFMC–10; fax: (843) 769–4520; email: *kim.iverson@safmc.net.*

SUPPLEMENTARY INFORMATION: The Habitat Protection and Ecosystem-Based Management AP meeting is open to the public and will be available via webinar as it occurs. Registration is required. Webinar registration information and other meeting materials will be posted to the Council's website at: *http://safmc.net/safmc-meetings/current-advisory-panel-meetings/* as it becomes available.

The Habitat Protection and Ecosystem-Based Management AP meeting agenda will include the following: An update on the Final Environmental Impact Statement for the Navy Fleet Training and Testing Area cooperatively developed by the Navy