—Other Business

The order of business may be adjusted as necessary to accommodate the completion of agenda items. Other than the start time, interested parties should be aware that discussions may start earlier or later than indicated.

Special Accommodations

These meetings are physically accessible to people with disabilities. For more information or request for sign language interpretation and other auxiliary aids, please contact Mr. Miguel A. Rolón, Executive Director, Caribbean Fishery Management Council, 270 Muñoz Rivera Avenue, Suite 401, San Juan, Puerto Rico 00918–1903, telephone: (787) 766–5926, at least 5 days prior to the meeting date.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: February 27, 2020.

Tracey L. Thompson,

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

[FR Doc. 2020–04336 Filed 3–2–20; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XR099]

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Ward Cove Cruise Ship Dock Project, Juneau, Alaska

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

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

SUMMARY: NMFS has received a request from Power Systems & Supplies of Alaska (PSSA) for authorization to take marine mammals incidental to Ward Cove Cruise Ship Dock Project near Ketchikan, Alaska. Pursuant to the Marine Mammal Protection Act (MMPA), NMFS is requesting comments on its proposal to issue an incidental harassment authorization (IHA) to incidentally take marine mammals during the specified activities. NMFS is also requesting comments on a possible one-year renewal that could be issued under certain circumstances and if all requirements are met, as described in *Request for Public Comments* at the end of this notice. NMFS will consider public comments prior to making any final decision on the issuance of the requested MMPA authorizations and agency responses will be summarized in the final notice of our decision.

DATES: Comments and information must be received no later than April 2, 2020.

ADDRESSES: Comments should be addressed to Jolie Harrison, Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service. Physical comments should be sent to 1315 East-West Highway, Silver Spring, MD 20910 and electronic comments should be sent to *ITP.Meadows@noaa.gov.*

Instructions: NMFS is not responsible for comments sent by any other method, to any other address or individual, or received after the end of the comment period. Comments received electronically, including all attachments, must not exceed a 25-megabyte file size. Attachments to electronic comments will be accepted in Microsoft Word or Excel or Adobe PDF file formats only. All comments received are a part of the public record and will generally be posted online at *https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection*-act without change. All personal identifying information (*e.g.,* name, address) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information.

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

SUPPLEMENTARY INFORMATION:

Background

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

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

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

National Environmental Policy Act

To comply with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*) and NOAA Administrative Order (NAO) 216–6A, NMFS must review our proposed action (*i.e.,* the issuance of an 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 preliminarily determined that the issuance of the proposed IHA qualifies to be categorically excluded from further NEPA review.

We will review all comments submitted in response to this notice prior to concluding our NEPA process or making a final decision on the IHA request.

Summary of Request

On December 30, 2019, NMFS received a request from PSSA for an IHA to take marine mammals incidental to Ward Cove Cruise Ship Dock Project near Ketchikan, Alaska. The application

was deemed adequate and complete on February 5, 2020. PSSA's request is for take of harbor seals by Level B harassment and Level A harassment. Neither PSSA nor NMFS expects serious injury or mortality to result from this activity and, therefore, an IHA is appropriate.

Description of Proposed Activity

Overview

The project consists of the construction of a cruise ship dock for two cruise ships in Ward Cove, approximately eight kilometers (5 miles) north of downtown Ketchikan, Alaska. PSSA would install a pile supported 500-foot by 70-foot floating pontoon dock, mooring structures, and shore-access transfer span and trestle. The project includes the following in-water components: Driving one hundred and two 30–48 inch diameter steel pipe piles to support the structures and removal of 48 of these piles (all 30-inch diameter) that are being used solely as templates to guide installation of larger permanent piles. It is expected to take no more than 105 days of in-water work. Pile driving would be by vibratory pile driving until resistance is too great and driving would switch to an impact hammer. Removal of temporary piles would use vibratory methods only. Forty larger 36- and 48-inch piles would also be rock anchored into place using a down-the-hole (DTH) drill.

The pile driving/removal or rock anchoring can result in take of marine mammals from sound in the water which results in behavioral harassment or auditory injury. The footprint of the project is approximately 1.5 square miles around the project site.

Dates and Duration

The work for which take will be authorized began in February 2020. In the time period before we authorize take the applicant has agreed with us to shut down pile driving anytime marine mammals are seen in the Level B Harassment Zone of the project area (see below). PSSA believes they are able to avoid unauthorized take through the use of mitigation and monitoring measures agreed described in their application. Because we do not know exactly when an IHA will be issued, nor exactly how much of the project activities will be complete when an authorization is in place, we may lower the take authorization at final issuance of this IHA. Under an existing permit issued by the Army Corps of Engineers and an Endangered Species Act (ESA) Section 7 Letter of Concurrence issued by NMFS, impact pile driving will cease by June 30 to protect endangered salmon and vibratory pile driving and rock anchoring will cease by July 31 to protect other ESA listed species. PSSA has proposed the daily construction window for pile removal and driving would begin no sooner than 30 minutes after sunrise and would end 30 minutes prior to sunset to allow for marine mammal monitoring.

Specific Geographic Region

The project site is located in Ward Cove north of Ketchikan, Alaska (Figure 1). Ward Cove is a small estuary with an area of approximately 1 square kilometer (0.4 square mile) located off the western coast of Revillagigedo Island and on the North Shore of Tongass Narrows. The cove is approximately 1.6 kilometers long (1 mile) and 0.8 kilometers (0.5 mile) wide with depths to 60 meters (200 feet) (EPA 2015, NOAA 2016). The cove has experienced significant industrialization as it was the former site of a pulp mill, sawmill, and fish processing plant. Effluent and materials from these former industries polluted the cove. The bottom substrate is organic-rich sediments areas overlaid with either sandy material that has been thinly placed (''capped;'' 15–23 inches thick) or sandy material that has been mounded (approximately 1.45 meters thick) as a remediation requirement for the earlier pollution. Deep water areas have deep organic sediments with no sandy overlay. Some areas have a high density of old sunken logs from the sawmill operations (Exponent 2000). Silt curtains will be used around pile driving operations and sediments captured as drill cutting discharge will be removed (see below) and will trap most suspended sediments and prevent dispersal into the wider environment.

Sound from project activities is expected to also move into Tongass Narrows. Tongass Narrows is a U-shaped glacier-carved fjord that varies between 300 meters (0.2 mile) to 2.4 kilometers (1.5 miles) wide and 15 meters (49 feet) to 55 meters (180 feet) deep (ADEC 2017, NOAA 2016). Tongass Narrows is known for strong tidal currents and unusually large tidal ranges of 8 meters (feet) or more (Pentec 2001). The Narrows are characterized by steep bedrock or coarse gravel-cobble-boulder shoreline.

Detailed Description of Specific Activity

The proposed project includes the installation of steel piles to support a new 500-foot by 70-foot floating pontoon dock, mooring structures, and shore-access transfer span and trestle. The project will:

- Install 48 temporary 30-inch diameter steel piles as templates to guide proper installation of permanent piles (these temporary piles would be removed prior to project completion);
- Install 14 permanent 30-inch diameter piles, 20 permanent 36-inch diameter piles, and 20 permanent 48-inch diameter piles to support a new 500-foot x 70-foot floating pontoon dock, mooring structures, and shore-access transfer span and trestle for a total of 54 piles;
- Install dock components such as bull rail, floating fenders, mooring cleats, vehicle driveway, curb, passenger walkway, hand rail, and mast lights.

The temporary, 30-inch diameter piles serving as a template would be installed and removed using a vibratory hammer. The 14 permanent 30-inch trestle piles will be installed through sand and gravel with a vibratory hammer and impact hammer. The 54 permanent 36-inch and 48-inch diameter piles will be driven through sand and gravel with a vibratory hammer and then impact driven into bedrock. After being impacted, these piles will be rock anchored. To rock anchor the pile, a DTH hammer with a 33-inch-diameter bit will be used to drill a shaft into the bedrock. The drill bit will be removed, and the shaft will be filled with vertical reinforcement (a rebar cage) in concrete to secure the pile. The depth of the shaft is to be determined by a geotechnical engineer prior to construction. During anchor drilling the pile will not be touched by the drill, and no steel-on-steel hammer noise will be generated. As much as possible, the hammer will be operated at a reduced energy setting. The contractor will use high-density polyethylene or ultra-high-molecular-weight polyethylene softening material (pile caps) on all templates to eliminate steel on steel noise generation.

In-water construction of the cruise ship dock will begin with installation of the trestle. Once the trestle is constructed, dolphins will be constructed. Trestle and dolphin construction will follow this sequence:

(1) Vibrate 32 temporary 30-inch-diameter piles for the trestle, and 16 temporary 30-inch diameter piles for the dolphins, a minimum of 10 feet into overburden to create a template to guide installation of permanent piles;

(2) Weld a template frame around the temporary piles;

(3) Within the template frame, vibrate and impact 14 permanent 30-inch diameter piles into place for the trestle; or vibrate, impact, and rock anchor 20 permanent 36-inch and 20 48-inch

diameter piles into place for the dolphins;

(4) Remove the template frame and temporary piles; and

(5) Perform this sequence at the seven trestle bent locations, working farther from the shoreline each sequence. Once the trestle is completed perform this sequence at the eight dolphin locations.

After all piles are installed, construction will proceed with installation of the floating dock, transfer span, trestle, mechanical systems, and other above-water components like the vehicle driveway, passenger walkway, and mast lights. Two barges and two small boats will be used to facilitate the construction, transport and stage materials, and support protected species monitoring. Additional standard barges, tug boats, or clamshell equipment will be used to place or remove material (including submerged logs) and position piles on the substrate via a crane.

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

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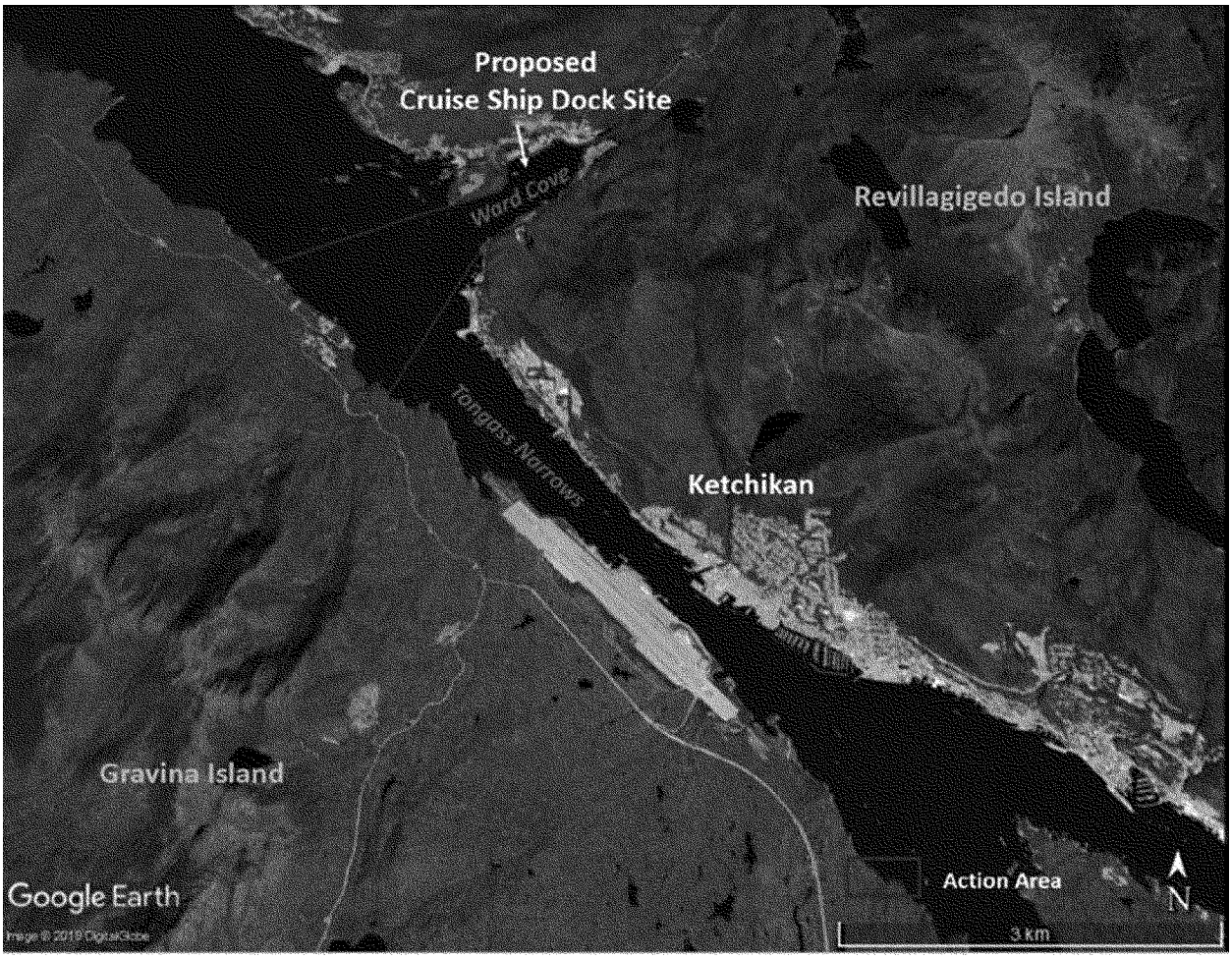

Figure 1. Map of proposed project area near Ketchikan, Alaska.

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Description of Marine Mammals in the Area of Specified Activities

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

Table 1 lists all species with expected potential for occurrence in the project area near Ketchikan, Alaska and summarizes information related to the population or stock, including regulatory status under the MMPA and ESA and potential biological removal (PBR), where known. For taxonomy, we follow Committee on Taxonomy (2019). PBR is defined by the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population (as described in NMFS's SARs). While no mortality is anticipated or authorized here, PBR and annual serious injury and mortality from anthropogenic sources are included here as gross indicators of the status of the species and other threats.

Marine mammal abundance estimates presented in this document represent

the total number of individuals that make up a given stock or the total number estimated within a particular study or survey area. NMFS'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. Alaska SARs (*e.g.,* Muto *et al.* 2019). All values presented in Table 1 are the most recent available at the time of publication and are available in the 2019 draft SARs (Muto *et al.,* 2019).

TABLE 1—MARINE MAMMALS THAT COULD OCCUR IN THE PROPOSED PROJECT AREA

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 Cetartiodactyla—Cetacea—Superfamily Mysticeti (baleen whales)						
Family Eschrichtiidae:						
Gray Whale	*Eschrichtius robustus*	Eastern North Pacific	-, -, N	26,960 (0.05, 25,849, 2016).	801	138
Family Balaenidae:						
Humpback whale	*Megaptera novaeangliae*	Central North Pacific	E, D,Y	10,103 (0.3; 7,891; 2006)	83	25
Minke whale	*Balaenoptera acutorostrata*	Alaska	-, N	N.A.	N.A.	N.A.
Fin whale	*Balaenoptera physalus*	Northeast Pacific	E, D, Y	N.A.	5.1	0.4
Order Cetartiodactyla—Cetacea—Superfamily Odontoceti (toothed whales, dolphins, and porpoises)						
Family Delphinidae:						
Killer whale	*Orcinus orca*	Alaska Resident	-, N	2,347 (N.A.; 2,347; 2012)	24	1
		West Coast Transient	-, N	243 (N.A, 243, 2009)	2.4	0
		Northern Resident	-, N	302 (N.A.; 302, 2018)	2.2	0.2
Pacific white-sided dolphin	*Lagenorhynchus obliquidens*	North Pacific	-,-; N	26,880 (N.A.; N.A.; 1990)	N.A.	0
Family Phocoenidae:						
Harbor porpoise	*Phocoena phocoena*	Southeast Alaska	-, Y	975 (0.10; 896; 2012)	8.95	34
Dall's porpoise	*Phocoenoides dalli*	Alaska	-, N	N.A.	N.A.	38
Order Carnivora—Superfamily Pinnipedia						
Family Otariidae (eared seals and sea lions):						
Steller sea lion	*Eumetopias jubatus*	Eastern U.S.	-,-, N	43,201 (N.A.; 43,201; 2017).	2,592	113
Family Phocidae (earless seals):						
Harbor seal	*Phoca vitulina richardii*	Clarence Strait	-, N	27,659 (N.A.; 24,854; 2015).	746	40

[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.

All 10 species that could potentially occur in the proposed survey areas are included in Table 1. However, the temporal and/or spatial occurrence and mitigation measures implemented for seven species (all in Table 1 except harbor seals, Dall's porpoise, and harbor porpoise) is such that take is not expected to occur, and they are not discussed further beyond the explanation provided here. These seven species are not expected to have take occur because the applicant will shut down pile driving and rock anchoring activities if these species are observed within the Level B harassment zone defined below. Additionally, minke whale, fin whale, gray whale, Pacific white-sided dolphins and killer whales are rare in the area. The applicant only requested take of harbor seals (see above), but we believe the cryptic nature, small size, and dive duration of Dall's porpoise and harbor porpoise make it possible that these two species could also be taken. Therefore we propose to authorize take for these species (see below) and PSSA concurred.

In addition, the northern sea otter may be found in the project vicinity. However, that species is managed by the U.S. Fish and Wildlife Service and is not considered further in this document.

Harbor Seal

Harbor seals (*Phoca vitulina*) inhabit coastal and estuarine waters off Alaska. They haul out on rocks, reefs, beaches, and drifting glacial ice. They are opportunistic feeders and often adjust their distribution to take advantage of locally and seasonally abundant prey (Womble *et al.,* 2009, Allen and Angliss, 2015).

Harbor seals occurring in the project area belong to the Clarence Strait stock. Distribution of the Clarence Strait stock ranges from the east coast of Prince of Wales Island from Cape Chacon north through Clarence Strait to Point Baker and along the east coast of Mitkof and Kupreanof Islands north to Bay Point, including Ernest Sound, Behm Canal, and Pearse Canal (Muto *et al.* 2019). In the project area, they tend to be more abundant during spring, summer and fall months when salmon are present in Ward Creek. Anecdotal evidence indicates that harbor seals typically occur in groups of 1–3 animals in Ward Cove (Spokely 2019). They were not observed in Tongass Narrows during a combined 63.5 hours of marine mammal monitoring that took place in 2001 and 2016 (OSSA 2001, Turnagain 2016). There are no known harbor seal haulouts within the project area.

According to the list of harbor seal haulout locations, the closest listed haulouts are located off the tip of Gravina Island, approximately eight kilometers (five miles) northwest of Ward Cove (AFSC 2018).

Dall's Porpoise

Dall's porpoises (*Phocoenoides dalli*) are found throughout the North Pacific, from southern Japan to southern California north to the Bering Sea. All Dall's porpoises in Alaska are members of the Alaska stock. This species can be found in offshore, inshore, and nearshore habitat.

Jefferson *et al.* (2019) presents historical survey data showing few sightings in the Ketchikan area. The mean group size in Southeast Alaska is estimated at approximately three individuals (Dahlheim *et al.* 2009, Jefferson *et al.* 2019), although Freitag (2017, as cited in 83 FR 37473) suggested group sizes near Ketchikan range from 10 to 15 individuals. Anecdotal reports suggest that Dall's porpoises are found northwest of Ketchikan near the Guard Islands, where waters are deeper, as well as in deeper waters to the southeast of Tongass Narrows. This species has a tendency to bow-ride with vessels and may occur in the action area incidentally a few times per year.

Harbor Porpoise

In the eastern North Pacific Ocean, the harbor porpoise (*Phocoena phocoena*) ranges from Point Barrow, along the Alaska coast, and down the west coast of North America to Point Conception, California. The Southeast Alaska stock ranges from Cape Suckling to the Canadian border (Muto *et al.* 2019). Harbor porpoises frequent primarily coastal waters in Southeast Alaska (Dahlheim *et al.* 2009) and occur most frequently in waters less than 100 meters (328 feet) deep (Dahlheim *et al.* 2015). They are not attracted to areas with elevated levels of vessel activity and noise such as Tongass Narrows.

Studies of harbor porpoises reported no evidence of seasonal changes in distribution for the inland waters of Southeast Alaska (Dahlheim *et al.* 2009). Their small overall size, lack of a visible blow, low dorsal fins and overall low profile, and short surfacing time make them difficult to spot (Dahlheim *et al.* 2015). Ketchikan area densities are expected to be low. This is supported by anecdotal estimates. Anecdotal reports (see IHA Application) specific to Tongass Narrows indicate that harbor porpoises are rarely observed in the action area. Harbor porpoises are expected to be present in the action area only a few times per year.

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. Current data indicate that 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) recommended that marine mammals be divided into functional hearing groups based on directly measured or estimated hearing ranges on the basis of available behavioral response data, audiograms derived using auditory evoked potential techniques, anatomical modeling, and other data. 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 2.

TABLE 2—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. Harbor seals are in the phocid group and Dall's and harbor porpoises are classified as high-frequency cetaceans.

Potential Effects of Specified Activities on Marine Mammals and Their Habitat

This section includes a summary and discussion of the ways that components of the specified activity may impact marine mammals and their habitat. The *Estimated Take by Incidental Harassment* section later in this document includes a quantitative analysis of the number of individuals that are expected to be taken by this activity. The *Negligible Impact Analysis and Determination* section considers the content of this section, the *Estimated Take by Incidental Harassment* section, and the *Proposed Mitigation* section, to draw conclusions regarding the likely impacts of these activities on the reproductive success or survivorship of individuals and how those impacts on individuals are likely to impact marine mammal species or stocks.

Description of Sound Sources

The marine soundscape is comprised of both ambient and anthropogenic sounds. Ambient sound is defined as the all-encompassing sound in a given place and is usually a composite of sound from many sources both near and far (ANSI 1994, 1995). The sound level of an area is defined by the total acoustical energy being generated by known and unknown sources. These sources may include physical (*e.g.,* waves, wind, precipitation, earthquakes, ice, atmospheric sound), biological (*e.g.,* sounds produced by marine mammals, fish, and invertebrates), and anthropogenic sound (*e.g.,* vessels, dredging, aircraft, construction).

The sum of the various natural and anthropogenic sound sources at any given location and time—which comprise ''ambient'' or ''background'' sound—depends not only on the source levels (as determined by current weather conditions and levels of biological and shipping activity) but also on the ability of sound to propagate through the environment. In turn, sound propagation is dependent on the spatially and temporally varying properties of the water column and sea floor, and is frequency-dependent. As a result of the dependence on a large number of varying factors, ambient sound levels can be expected to vary widely over both coarse and fine spatial and temporal scales. Sound levels at a given frequency and location can vary by 10–20 dB from day to day (Richardson *et al.,* 1995). The result is that, depending on the source type and its intensity, sound from the specified activity may be a negligible addition to the local environment or could form a distinctive signal that may affect marine mammals.

In-water construction activities associated with the project would include impact pile driving, vibratory pile driving, and rock anchoring. The sounds produced by these activities fall into one of two general sound types: impulsive and non-impulsive. Impulsive sounds (*e.g.,* explosions, gunshots, sonic booms, impact pile driving) are typically transient, brief (less than 1 second), broadband, and consist of high peak sound pressure with rapid rise time and rapid decay (ANSI, 1986; NIOSH, 1998; ANSI, 2005; NMFS, 2018). Non-impulsive sounds (*e.g.,* machinery operations such as drilling or dredging, vibratory pile driving, and active sonar systems) can be broadband, narrowband or tonal, brief or prolonged (continuous or intermittent), and typically do not have the high peak sound pressure with raid rise/decay time that impulsive sounds do (ANSI 1995; NIOSH 1998; NMFS 2018). The distinction between these two sound types is important because they have differing potential to cause physical effects, particularly with regard to hearing (*e.g.,* Ward 1997 in Southall *et al.,* 2007).

Two types of pile hammers would be used on this project: Impact and vibratory. Impact hammers operate by repeatedly dropping a heavy piston onto a pile to drive the pile into the substrate. Sound generated by impact hammers is characterized by rapid rise times and high peak levels, a potentially injurious combination (Hastings and Popper, 2005). Vibratory hammers install piles by vibrating them and allowing the weight of the hammer to push them into the sediment. Vibratory hammers produce significantly less sound than impact hammers. Peak Sound pressure Levels (SPLs) may be 180 dB or greater, but are generally 10 to 20 dB lower than SPLs generated during impact pile driving of the same-sized pile (Oestman *et al.,* 2009). Rise time is slower, reducing the probability and severity of injury, and sound energy is distributed over a greater amount of time (Nedwell and Edwards, 2002; Carlson *et al.,* 2005).

Rock anchoring would be conducted using a DTH drill inserted through the hollow steel piles. A DTH drill is a drill bit that drills through the bedrock using a pulse mechanism that functions at the bottom of the hole. This pulsing bit breaks up rock to allow removal of debris and insertion of the pile. The head extends so that the drilling takes place below the pile. The pulsing sounds produced by the DTH drilling method are considered continuous as the noise from the drilling component is expected to be dominant. In addition, the method in this case likely increases sound attenuation because the noise is primarily contained within the steel pile and below ground as opposed to impact hammer driving methods which occur at the top of the pile and introduce sound into the water column to a greater degree. See our detailed discussion of this sound source in the notice of issuance of an IHA for Ferry Berth Improvements in Tongass Narrows, Alaska *https://www.govinfo.gov/content/pkg/FR-2020-01-07/pdf/2020-00038.pdf.*

The likely or possible impacts of PSSA's proposed activity on marine mammals could involve both non-acoustic and acoustic stressors. Potential non-acoustic stressors could result from the physical presence of the equipment and personnel; however, any impacts to marine mammals are expected to primarily be acoustic in nature. Acoustic stressors include effects of heavy equipment operation during pile installation and removal and drilling.

Acoustic Impacts

The introduction of anthropogenic noise into the aquatic environment from pile driving and removal and rock anchoring is the primary means by which marine mammals may be harassed from PSSA's specified activity. In general, animals exposed to natural or anthropogenic sound may experience physical and psychological effects, ranging in magnitude from none to severe (Southall *et al.,* 2007). Generally, exposure to pile driving and drilling noise has the potential to result in auditory threshold shifts and behavioral reactions (*e.g.,* avoidance, temporary cessation of foraging and vocalizing, changes in dive behavior). Exposure to anthropogenic noise can also lead to non-observable physiological responses such an increase in stress hormones. Additional noise in a marine mammal's habitat can mask acoustic cues used by marine mammals to carry out daily functions such as communication and predator and prey detection. The effects of pile driving and drilling noise on marine mammals are dependent on several factors, including, but not limited to, sound type (*e.g.,* impulsive vs. non-impulsive), the species, age and sex class (*e.g.,* adult male vs. mom with calf), duration of exposure, the distance between the pile and the animal, received levels, behavior at time of exposure, and previous history with exposure (Wartzok *et al.,* 2004; Southall *et al.,* 2007). Here we discuss physical auditory effects (threshold shifts) followed by behavioral effects and potential impacts on habitat.

NMFS defines a noise-induced threshold shift (TS) as a change, usually an increase, in the threshold of audibility at a specified frequency or portion of an individual's hearing range above a previously established reference level (NMFS, 2018). The amount of threshold shift is customarily expressed in dB. A TS can be permanent or temporary. As described in NMFS (2018), there are numerous factors to consider when examining the consequence of TS, including, but not limited to, the signal temporal pattern (*e.g.,* impulsive or non-impulsive), likelihood an individual would be exposed for a long enough duration or to a high enough level to induce a TS, the magnitude of the TS, time to recovery (seconds to minutes or hours to days), the frequency range of the exposure (*i.e.,* spectral content), the

hearing and vocalization frequency range of the exposed species relative to the signal's frequency spectrum (*i.e.,* how animal uses sound within the frequency band of the signal; *e.g.,* Kastelein *et al.,* 2014), and the overlap between the animal and the source (*e.g.,* spatial, temporal, and spectral).

Permanent Threshold Shift (PTS)—NMFS defines PTS as a permanent, irreversible increase in the threshold of audibility at a specified frequency or portion of an individual's hearing range above a previously established reference level (NMFS 2018). Available data from humans and other terrestrial mammals indicate that a 40 dB threshold shift approximates PTS onset (see Ward *et al.,* 1958, 1959; Ward, 1960; Kryter *et al.,* 1966; Miller, 1974; Ahroon *et al.,* 1996; Henderson and Hu, 2008). PTS levels for marine mammals are estimates, with the exception of a single study unintentionally inducing PTS in a harbor seal (Kastak *et al.,* 2008), there are no empirical data measuring PTS in marine mammals, largely due to the fact that, for various ethical reasons, experiments involving anthropogenic noise exposure at levels inducing PTS are not typically pursued or authorized (NMFS, 2018).

Temporary Threshold Shift (TTS)—A temporary, reversible increase in the threshold of audibility at a specified frequency or portion of an individual's hearing range above a previously established reference level (NMFS, 2018). Based on data from cetacean TTS measurements (see Southall *et al.,* 2007), a TTS of 6 dB is considered the minimum threshold shift clearly larger than any day-to-day or session-to-session variation in a subject's normal hearing ability (Schlundt *et al.,* 2000; Finneran *et al.,* 2000, 2002). As described in Finneran (2016), marine mammal studies have shown the amount of TTS increases with cumulative sound exposure level (SEL_{cum}) in an accelerating fashion: At low exposures with lower SEL_{cum}, the amount of TTS is typically small and the growth curves have shallow slopes. At exposures with higher SEL_{cum}, the growth curves become steeper and approach linear relationships with the noise SEL.

Depending on the degree (elevation of threshold in dB), duration (*i.e.,* recovery time), and frequency range of TTS, and the context in which it is experienced, TTS can have effects on marine mammals ranging from discountable to serious (similar to those discussed in auditory masking, below). For example, a marine mammal may be able to readily compensate for a brief, relatively small amount of TTS in a non-critical frequency range that takes place during a time when the animal is traveling through the open ocean, where ambient noise is lower and there are not as many competing sounds present. Alternatively, a larger amount and longer duration of TTS sustained during time when communication is critical for successful mother/calf interactions could have more serious impacts. We note that reduced hearing sensitivity as a simple function of aging has been observed in marine mammals, as well as humans and other taxa (Southall *et al.,* 2007), so we can infer that strategies exist for coping with this condition to some degree, though likely not without cost.

Currently, TTS data only exist for four species of cetaceans (bottlenose dolphin (*Tursiops truncatus*), beluga whale (*Delphinapterus leucas*), harbor porpoise, and Yangtze finless porpoise (*Neophocoena asiaeorientalis*)) and five species of pinnipeds exposed to a limited number of sound sources (*i.e.,* mostly tones and octave-band noise) in laboratory settings (Finneran, 2015). TTS was not observed in trained spotted (*Phoca largha*) and ringed (*Pusa hispida*) seals exposed to impulsive noise at levels matching previous predictions of TTS onset (Reichmuth *et al.,* 2016). In general, harbor seals and harbor porpoises have a lower TTS onset than other measured pinniped or cetacean species (Finneran, 2015). The potential for TTS from impact pile driving exists. After exposure to playbacks of impact pile driving sounds (rate 2760 strikes/hour) in captivity, mean TTS increased from 0 dB after 15 minute exposure to 5 dB after 360 minute exposure; recovery occurred within 60 minutes (Kastelein *et al.,* 2016). Additionally, the existing marine mammal TTS data come from a limited number of individuals within these species. No data are available on noise-induced hearing loss for mysticetes. For summaries of data on TTS in marine mammals or for further discussion of TTS onset thresholds, please see Southall *et al.* (2007), Finneran and Jenkins (2012), Finneran (2015), and Table 5 in NMFS (2018).

Installing piles requires a combination of impact pile driving, vibratory pile driving, and DTH drilling. For the project, these activities would not occur at the same time and there would likely be pauses in activities producing the sound during each day. Given these pauses and that many marine mammals are likely moving through the action area and not remaining for extended periods of time, the potential for TS declines.

Behavioral Harassment—Exposure to noise from pile driving and removal and drilling also has the potential to behaviorally disturb marine mammals. Available studies show wide variation in response to underwater sound; therefore, it is difficult to predict specifically how any given sound in a particular instance might affect marine mammals perceiving the signal. If a marine mammal does react briefly to an underwater sound by changing its behavior or moving a small distance, the impacts of the change are unlikely to be significant to the individual, l*et al*one the stock or population. However, if a sound source displaces marine mammals from an important feeding or breeding area for a prolonged period, impacts on individuals and populations could be significant (*e.g.,* Lusseau and Bejder, 2007; Weilgart, 2007; NRC, 2005).

Disturbance may result in changing durations of surfacing and dives, number of blows per surfacing, or moving direction and/or speed; reduced/increased vocal activities; changing/cessation of certain behavioral activities (such as socializing or feeding); visible startle response or aggressive behavior (such as tail/fluke slapping or jaw clapping); avoidance of areas where sound sources are located. Pinnipeds may increase their haul out time, possibly to avoid in-water disturbance (Thorson and Reyff, 2006). Behavioral responses to sound are highly variable and context-specific and any reactions depend on numerous intrinsic and extrinsic factors (*e.g.,* species, state of maturity, experience, current activity, reproductive state, auditory sensitivity, time of day), as well as the interplay between factors (*e.g.,* Richardson *et al.,* 1995; Wartzok *et al.,* 2003; Southall *et al.,* 2007; Weilgart, 2007; Archer *et al.,* 2010). Behavioral reactions can vary not only among individuals but also within an individual, depending on previous experience with a sound source, context, and numerous other factors (Ellison *et al.,* 2012), and can vary depending on characteristics associated with the sound source (*e.g.,* whether it is moving or stationary, number of sources, distance from the source). In general, pinnipeds seem more tolerant of, or at least habituate more quickly to, potentially disturbing underwater sound than do cetaceans, and generally seem to be less responsive to exposure to industrial sound than most cetaceans. Please see Appendices B and C of Southall *et al.* (2007) for a review of studies involving marine mammal behavioral responses to sound.

Disruption of feeding behavior can be difficult to correlate with anthropogenic sound exposure, so it is usually inferred by observed displacement from known foraging areas, the appearance of secondary indicators (*e.g.,* bubble nets or sediment plumes), or changes in dive behavior. As for other types of behavioral response, the frequency, duration, and temporal pattern of signal presentation, as well as differences in species sensitivity, are likely contributing factors to differences in response in any given circumstance (*e.g.,* Croll *et al.,* 2001; Nowacek *et al.,* 2004; Madsen *et al.,* 2006; Yazvenko *et al.,* 2007). A determination of whether foraging disruptions incur fitness consequences would require information on or estimates of the energetic requirements of the affected individuals and the relationship between prey availability, foraging effort and success, and the life history stage of the animal.

In 2016, the Alaska Department of Transportation and Public Facilities (ADOT&PF) documented observations of marine mammals during construction activities (*i.e.,* pile driving and DTH drilling) at the Kodiak Ferry Dock (see 80 FR 60636, October 7, 2015). In the marine mammal monitoring report for that project (ABR 2016), 1,281 Steller sea lions were observed within the Level B disturbance zone during pile driving or drilling (*i.e.,* documented as Level B harassment take). Of these, 19 individuals demonstrated an alert behavior, 7 were fleeing, and 19 swam away from the project site. All other animals (98 percent) were engaged in activities such as milling, foraging, or fighting and did not change their behavior. In addition, two sea lions approached within 20 meters of active vibratory pile driving activities. Three harbor seals were observed within the disturbance zone during pile driving activities; none of them displayed disturbance behaviors. Fifteen killer whales and three harbor porpoise were also observed within the Level B harassment zone during pile driving. The killer whales were travelling or milling while all harbor porpoises were travelling. No signs of disturbance were noted for either of these species. Given the similarities in activities and habitat and the fact the same species are involved, we expect similar behavioral responses of marine mammals to PSSA's specified activity. That is, disturbance, if any, is likely to be temporary and localized (*e.g.,* small area movements). Monitoring reports from other recent pile driving and DTH drilling projects in Alaska have observed similar behaviors (for example, the Biorka Island Dock Replacement Project *https://www.fisheries.noaa.gov/action/incidental-take-authorization-faa-biorka-island-dock-replacement-project-sitka-ak*).

Masking—Sound can disrupt behavior through masking, or interfering with, an animal's ability to detect, recognize, or discriminate between acoustic signals of interest (*e.g.,* those used for intraspecific communication and social interactions, prey detection, predator avoidance, navigation) (Richardson *et al.,* 1995). Masking occurs when the receipt of a sound is interfered with by another coincident sound at similar frequencies and at similar or higher intensity, and may occur whether the sound is natural (*e.g.,* snapping shrimp, wind, waves, precipitation) or anthropogenic (*e.g.,* pile driving, shipping, sonar, seismic exploration) in origin. The ability of a noise source to mask biologically important sounds depends on the characteristics of both the noise source and the signal of interest (*e.g.,* signal-to-noise ratio, temporal variability, direction), in relation to each other and to an animal's hearing abilities (*e.g.,* sensitivity, frequency range, critical ratios, frequency discrimination, directional discrimination, age or TTS hearing loss), and existing ambient noise and propagation conditions. Masking of natural sounds can result when human activities produce high levels of background sound at frequencies important to marine mammals. Conversely, if the background level of underwater sound is high (*e.g.* on a day with strong wind and high waves), an anthropogenic sound source would not be detectable as far away as would be possible under quieter conditions and would itself be masked. The Ketchikan area contains active commercial shipping, cruise ship and ferry operations, as well as numerous recreational and other commercial vessels; therefore, background sound levels in the area are already elevated.

Airborne Acoustic Effects—Pinnipeds that occur near the project site could be exposed to airborne sounds associated with pile driving and removal and DTH drilling that have the potential to cause behavioral harassment, depending on their distance from pile driving activities. Cetaceans are not expected to be exposed to airborne sounds that would result in harassment as defined under the MMPA.

Airborne noise would primarily be an issue for pinnipeds that are swimming or hauled out near the project site within the range of noise levels elevated above the acoustic criteria. We recognize that pinnipeds in the water could be exposed to airborne sound that may result in behavioral harassment when looking with their heads above water. Most likely, airborne sound would cause behavioral responses similar to those discussed above in relation to underwater sound. For instance, anthropogenic sound could cause hauled-out pinnipeds to exhibit changes in their normal behavior, such as reduction in vocalizations, or cause them to temporarily abandon the area and move further from the source. However, these animals would previously have been 'taken' because of exposure to underwater sound above the behavioral harassment thresholds, which are in all cases larger than those associated with airborne sound. Thus, the behavioral harassment of these animals is already accounted for in these estimates of potential take. Moreover, there are no known haulout areas near the project. Therefore, we do not believe that authorization of incidental take resulting from airborne sound for pinnipeds is warranted, and airborne sound is not discussed further here.

Marine Mammal Habitat Effects

PSSA's construction activities in Ward Cove could have localized, temporary impacts on marine mammal habitat and their prey by increasing in-water sound pressure levels and slightly decreasing water quality. Increased noise levels may affect acoustic habitat (see masking discussion above) and adversely affect marine mammal prey in the vicinity of the project area (see discussion below). During impact pile driving, elevated levels of underwater noise would ensonify Ward Cove and adjacent Tongass Narrows where both fishes and mammals occur and could affect foraging success.

Construction activities are of short duration and would likely have temporary impacts on marine mammal habitat through increases in underwater and airborne sound.

In-water pile driving, pile removal, and drilling activities would also cause short-term effects on water quality due to increased turbidity. The use of silt curtains and the removal of sediments captured as drill cutting discharge (see below) will trap most suspended sediments and prevent dispersal into the wider environment. Local strong currents are anticipated to disburse any additional suspended sediments produced by project activities at moderate to rapid rates depending on tidal stage. PSSA would employ other standard construction best management practices (see section 11 in application),

thereby reducing any impacts. Therefore, the impact from increased turbidity levels is expected to be discountable.

In-Water Construction Effects on Potential Foraging Habitat

The area likely impacted by the project is relatively small compared to the available habitat (*e.g.,* most of the impacted area is limited to Ward Cove) and does not include any Biologically Important Areas or other habitat of known importance. Pile installation/removal and drilling may temporarily increase turbidity resulting from suspended sediments. Any increases would be temporary, localized, and minimal. PSSA must comply with state water quality standards during these operations by using silt curtains and removing all sediments captured as drill cutting discharge to upland disposal sites. In general, turbidity associated with pile installation is localized to about a 25-foot radius around the pile (Everitt *et al.,* 1980). Any pinnipeds would be transiting the area and could avoid localized areas of turbidity. Therefore, the impact from increased turbidity levels is expected to be discountable to marine mammals. Furthermore, pile driving and removal at the project site would not obstruct movements or migration of marine mammals.

Avoidance by potential prey (*i.e.,* fish) of the immediate area due to the temporary loss of this foraging habitat is also possible. The duration of fish avoidance of this area after pile driving stops is unknown, but a rapid return to normal recruitment, distribution and behavior is anticipated. Any behavioral avoidance by fish of the disturbed area would still leave significantly large areas of fish and marine mammal foraging habitat in the nearby vicinity.

The duration of the construction activities is relatively short. The construction window is for a maximum of 4–5 months. During each day, construction activities would only occur during daylight hours. Impacts to habitat and prey are expected to be minimal based on the short duration of activities and small size of Ward Cove.

In-water Construction Effects on Potential Prey (Fish)— Construction activities would produce continuous (*i.e.,* vibratory pile driving and DTH drilling) and pulsed (*i.e.* impact driving) sounds. Fish react to sounds that are especially strong and/or intermittent low-frequency sounds. Short duration, sharp sounds can cause overt or subtle changes in fish behavior and local distribution. Hastings and Popper (2005) identified several studies that suggest fish may relocate to avoid certain areas of sound energy. Additional studies have documented effects of pile driving on fish, although several are based on studies in support of large, multiyear bridge construction projects (*e.g.,* Scholik and Yan, 2001, 2002; Popper and Hastings, 2009). Sound pulses at received levels of 160 dB may cause subtle changes in fish behavior. SPLs of 180 dB may cause noticeable changes in behavior (Pearson *et al.,* 1992; Skalski *et al.,* 1992). SPLs of sufficient strength have been known to cause injury to fish and fish mortality.

The most likely impact to fish from pile driving and drilling activities at the project area would be temporary behavioral avoidance of the area. The duration of fish avoidance of this area after pile driving stops is unknown, but a rapid return to normal recruitment, distribution and behavior is anticipated. There are times of known seasonal marine mammal foraging in Tongass Narrows around fish processing/hatchery infrastructure or when fish are congregating, but the impacted areas of Tongass Narrows are a small portion of the total foraging habitat available in the region. In general, impacts to marine mammal prey species are expected to be minor and temporary due to the short timeframe of the project and the small project footprint.

Construction activities, in the form of increased turbidity, have the potential to adversely affect forage fish and juvenile salmonid outmigratory routes in the project area. Both herring and salmon form a significant prey base for Steller sea lions, herring is a primary prey species of humpback whales, and both herring and salmon are components of the diet of many other marine mammal species that occur in the project area. Increased turbidity is expected to occur in the immediate vicinity (on the order of 10 feet or less) of construction activities. However, suspended sediments and particulates are expected to dissipate quickly within a single tidal cycle. Given the limited area affected and high tidal dilution rates any effects on forage fish and salmon are expected to be minor or negligible. In addition, best management practices would be in effect, which would limit the extent of turbidity to the immediate project area. Finally, exposure to turbid waters from construction activities is not expected to be different from the current exposure; fish and marine mammals in the Tongass Narrows region are routinely exposed to substantial levels of suspended sediment from glacial sources.

In summary, given the short daily duration of sound associated with individual pile driving and drilling events and the relatively small areas being affected, pile driving and drilling activities associated with the proposed action are not likely to have a permanent, adverse effect on any fish habitat, or populations of fish species. Thus, we conclude that impacts of the specified activity are not likely to have more than short-term adverse effects on any prey habitat or populations of prey species. Further, any impacts to marine mammal habitat are not expected to result in significant or long-term consequences for individual marine mammals, or to contribute to adverse impacts on their populations.

Estimated Take

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

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

Authorized takes would primarily be by Level B harassment, as use of the acoustic source (*i.e.,* vibratory or impact pile driving or DTH drilling) has the potential to result in disruption of behavioral patterns for individual marine mammals. There is also some potential for auditory injury (Level A harassment) to result for pinnipeds because predicted auditory injury zones are larger and harbor seals are the only animals routinely seen in Ward Cove. The proposed mitigation and monitoring measures are expected to minimize the severity of the taking to the extent practicable.

As described previously, no mortality is anticipated or proposed to be 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). Due to the lack of marine marine mammal density, NMFS relied on local occurrence data and group size to estimate take. Below, we describe the factors considered here in more detail and present the proposed take estimate.

Acoustic Thresholds

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

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

PSSA's proposed activity includes the use of continuous (vibratory pile-driving, DTH 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) (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). PSSA's activity includes the use of impulsive (impact pile-driving) and non-impulsive (vibratory pile driving/removal and drilling) sources.

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

TABLE 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 1μPa^{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 coefficient.

The sound field in the project area is the existing background noise plus additional construction noise from the proposed project. Marine mammals are expected to be affected via sound generated by the primary components of the project (*i.e.,* impact pile driving, vibratory pile driving, vibratory pile removal, and DTH drilling).

Vibratory hammers produce constant sound when operating, and produce vibrations that liquefy the sediment surrounding the pile, allowing it to penetrate to the required seating depth. An impact hammer would then generally be used to place the pile at its intended depth through rock or harder substrates. The actual durations of each installation method vary depending on the type and size of the pile. An impact hammer is a steel device that works like a piston, producing a series of independent strikes to drive the pile. Impact hammering typically generates the loudest noise associated with pile installation.

In order to calculate distances to the Level A harassment and Level B harassment sound thresholds for piles of various sizes being used in this project, NMFS used acoustic monitoring data

from other locations to develop source levels (see Table 4). Note that piles of differing sizes have different sound source levels (SSLs).

Empirical data from recent ADOT&PF sound source verification (SSV) studies at Ketchikan were used to estimate sound source levels for vibratory and impact driving of 30-inch steel pipe piles and Kodiak for drilling (Denes *et al.* 2016). Data from Ketchikan was used because of its proximity to this proposed project in Tongass Narrows and Kodiak drilling data was used as a proxy here because of its relative proximity. Details are described below.

The source level for rock anchoring was derived from the above mentioned ADOT&PF SSV study at Kodiak, Alaska. The reported median source value for drilling was determined to be 166.2 dB rms for all pile types (Denes *et al.* 2016, Table 72). See our detailed discussion of this sound source in the notice of issuance of an IHA for Ferry Berth Improvements in Tongass Narrows, Alaska *https://www.govinfo.gov/content/pkg/FR-2020-01-07/pdf/2020-00038.pdf*

TABLE 4—ESTIMATES OF MEAN UNDERWATER SOUND LEVELS GENERATED DURING VIBRATORY AND IMPACT PILE INSTALLATION, DRILLING, AND VIBRATORY PILE REMOVAL

Method and pile type	Sound source level at 10 meters		Literature source
Vibratory Hammer	dB rms		
30-inch steel piles	161.9		Denes *et al.* 2016, Table 72.
36-inch steel piles	168.2		Austin *et al.* 2016, Table 16.
48-inch steel piles	168.2		Austin *et al.* 2016, Table 16.
Drilling Rock Anchors	dB rms		
All pile diameters	166.2		Denes *et al.* 2016, Table 72.
Impact Hammer	dB peak	dB SS SEL	
All pile diameters	212	186.7	Austin *et al.* 2016, Tables 9, 16.

Note: It is assumed that noise levels during pile installation and removal are similar. Use of an impact hammer will be limited to 5–10 minutes per pile, if necessary. It is assumed that drilling produces the same SSL for both pile diameters. SS SEL = single strike sound exposure level; dB peak = peak sound level; rms = root mean square.

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

TL = transmission loss in dB

B = transmission loss coefficient; for practical spreading equals 15

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

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

The recommended TL coefficient for most nearshore environments is the, practical spreading value of 15. This value results in an expected propagation environment that would lie between spherical and cylindrical spreading loss conditions, which is the most appropriate assumption for PSSA's proposed activity.

Using the practical spreading model, PSSA determined underwater noise would fall below the behavioral effects threshold of 120 dB rms for marine mammals at a maximum radial distance of 16,343 m for vibratory pile driving the 36 and 48-inch diameter piles. This distance determines the maximum Level B harassment zone for the project. Other activities, including rock anchoring and impact pile driving, have smaller Level B harassment zones. All Level B harassment isopleths are reported in Table 5 below and visualized in Figure 6 and Table 5 in the IHA application. It should be noted that based on the geography of Ward Cove, Tongass Narrows and the surrounding islands, sound will not reach the full distance of the Level B harassment isopleth. Generally, due to interaction with land, only a thin slice of the possible area is ensonified and the maximum distance before reaching land barriers is 3,645 m.

TABLE 5—CALCULATED DISTANCES TO LEVEL B HARASSMENT ISOPLETHS DURING PILE INSTALLATION AND REMOVAL

Pile size	Level B isopleth (m)
Vibratory Pile Driving/Removal:	
30-inch piles	6,213
36-inch piles	16,343
48-inch piles	16,343
Impact Pile Driving:	
30-inch piles	3,744
36-inch piles	3,744
48-inch piles	3,744
Rock Anchoring:	
36-inch piles	12,023
48-inch piles	12,023

Level A Harassment Zones

When the NMFS Technical Guidance (2016) was published, in recognition of the fact that ensonified area/volume could be more technically challenging to predict because of the duration component in the new thresholds, we developed a User Spreadsheet that includes tools to help predict a simple isopleth that can be used in conjunction with marine mammal density or occurrence to help predict takes. We note that because of some of the assumptions included in the methods used for these tools, we anticipate that isopleths produced are typically going to be overestimates of some degree, which may result in some degree of overestimate of take by 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 such as impact/vibratory pile driving or drilling, NMFS 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 (Table 6), and the resulting isopleths are reported below (Table 7). Level A

harassment thresholds for impulsive sound sources (impact pile driving) are defined for both SELcum and Peak SPL, with the threshold that results in the largest modeled isopleth for each marine mammal hearing group used to establish the Level A harassment isopleth. In this project, Level A harassment isopleths based on SELcum were always larger than those based on Peak SPL.

TABLE 6—PARAMETERS OF PILE DRIVING AND DRILLING ACTIVITY USED IN USER SPREADSHEET

Equipment type	Vibratory pile driver (installation/removal of 30-inch steel piles)	Vibratory pile driver (installation of 36 and 48-inch steel piles)	Impact pile driver (30-inch steel piles)	Impact pile driver (36 and 48-inch steel piles)	Rock anchor (36-inch steel piles)	Rock anchor (48-inch steel piles)
Spreadsheet Tab Used	Non-impulsive, continuous.	Non-impulsive, continuous.	Impulsive, Non-continuous.	Impulsive, Non-continuous.	Non-impulsive, continuous.	Non-impulsive, continuous
Source Level	161.9 SPL	168.2 SPL	186.7 SS SEL*	186.7 SS SEL*	166.2 SPL	166.2 SPL
Weighting Factor Adjustment (kHz).	2.5	2.5	2	2	2.5	2.5
(a)Activity duration (time) within 24 hours.	(a) 0:40	(a) 1:00			(a) 8:00	(a) 5:00
(b) Number of strikes per pile (impact).			(b) 40	(b) 100	(240 mins *2)	(300 mins *1)
(c) Number of piles per day.	(c) 4	(c) 2	(c) 2	(c) 2	(c) 2	(c) 1
Propagation (xLogR)	15	15	15	15	15	15
Distance of source level measurement (meters).	10	10	10	10	10	10

Note: Data for all equipment types were for Propagation (xLogR) = 15 and distance of source level measurements was 10 meters.
*Largest isopleth distances for impact pile driving were all found when using SS SEL (see application for details) and SEL is the preferred metric.

The above input scenarios lead to a PTS isopleth distance (Level A threshold) of 3.6 to 322.5 meters, depending on the marine mammal group and scenario (Table 7).

TABLE 7—CALCULATED DISTANCES TO LEVEL A HARASSMENT ISOPLETHS (m) DURING PILE INSTALLATION AND REMOVAL FOR EACH HEARING GROUP

Pile size	Low frequency	Mid frequency	High frequency	Phocid	Otariid
Vibratory Pile Driving/Removal:					
30-inch piles	6	0.5	8.8	3.6	0.3
36-inch piles	20.6	1.8	30.5	12.5	0.9
48-inch piles	20.6	1.8	30.5	12.5	0.9
Impact Pile Driving:					
30-inch piles	327.2	11.6	389.7	175.1	12.7
36-inch piles	602.7	21.4	717.9	322.5	23.5
48-inch piles	602.7	21.4	717.9	322.5	23.5
Rock Anchoring:					
36-inch piles	60.7	5.4	89.7	36.9	2.6
48-inch piles	44.4	3.9	65.6	27	1.9

Note: a 10-meter shutdown zone will be implemented for all species and activity types to prevent direct injury of marine mammals.

Marine Mammal Occurrence

In this section we provide the information about the presence, density, or group dynamics of harbor seals that will inform the take calculations. There is no density data for any of the species near Ward Cove.

Harbor Seal

As discussed above anecdotal evidence suggests maximum group size is up to three individuals in Ward Cove at one time. They are known to occur year-round in the area with little seasonal variation in abundance (Freitag (2017) as cited in 83 FR 37473) and local experts estimate that there are about 1 to 3 harbor seals in Tongass Narrows every day. To be conservative we will assume a group size of five individuals in the project area each day.

Dall's Porpoise

Dall's porpoises are expected to only occur in the action area a few times per year. Their relative rarity is supported by Jefferson *et al.*'s (2019) presentation of historical survey data showing very few sightings in the Ketchikan area and conclusion that Dall's porpoise generally are rare in narrow waterways, like the Tongass Narrows. This species is non-migratory; therefore, our occurrence estimates are not dependent on season. We anticipate that one large Dall's porpoise pod (15 individuals) (Freitag (2017), as cited in 83 FR37473) may be present in the project area once each month during construction.

Harbor Porpoise

Harbor porpoises are non-migratory; therefore, our occurrence estimates are not dependent on season. Freitag ((2017) as cited in 83 FR 37473) observed harbor porpoises in Tongass Narrows zero to one time per month. Harbor porpoises observed in the project vicinity typically occur in groups of one to five animals with an estimated maximum group size of eight animals (83 FR 37473, August 1, 2018, Solstice 2018). For our impact analysis, we are considering a group to consist of five

animals, a value on the high end of the typical group size. Based on Freitag (2017), and supported by the reports of knowledgeable locals as described in the application for IHA for Tongass Narrows (*https://www.fisheries.noaa.gov/action/incidental-take-authorization-alaska-department-transportation-ferry-berth-improvements*), it is estimated that a maximum two groups (10) of harbor porpoises would enter Tongass Narrows and potentially be exposed to project related noise each of the four months of the project.

Take Calculation and Estimation

Here we describe how the information provided above is brought together to produce a quantitative take estimate. As noted above, the applicant only requested take of harbor seals, but we believe the cryptic nature, small size, and dive duration of Dall's porpoise and harbor porpoise make it possible that these two species could also be taken by popping up inside the Level B harassment zone before shutdown can occur (see below). We describe how we estimated their take below.

It is important to note that PSSA proposes to implement a shutdown of pile driving activity if any marine mammal other than harbor seals is observed within the Level B harassment zone (see Proposed Mitigation). Therefore, the proposed take authorization is intended to provide insurance against the event that marine mammals occur within Level B harassment zones that cannot be fully observed by monitors. As a result of this proposed mitigation, we do not believe that Level A harassment is a likely outcome for these two species. While the calculated Level A harassment zone is as large as 720 m for impact driving of 48-in steel piles (ranging from 390 m for other impact driving scenarios), this requires that an animal be present at that range for the full assumed duration of pile strikes (expected to require multiple hours). Given the PSSA's commitment to shut down upon observation of other marine mammals, and the rarity of these animals inside Ward Cove where the Level A harassment zones will be, we do not expect that any of these other species would be present within a Level A harassment zone for sufficient duration to actually experience PTS.

Harbor Seals

The take calculation was estimated based on the conservative group size from above (5) multiplied by the number of expected groups per day multiplied by the number of days of pile driving. Based on the anecdotal observations, it is conservatively estimated that 2 groups of 5 harbor seals may occur within the Level B harassment zone every day that pile driving may occur. Thus we estimate 5 animals in a group x 2 groups per day x 105 days = 1,050 times animals would occur within the Level B harassment zone. The Level B harassment zones areas for trestle construction and mooring dolphin construction differ in size because more sound is expected to leak out of the cove into Tongass Narrows when construction on the dolphins is toward the middle of the cove (see Figure 6 of application). Nevertheless, it is expected that most of the take will occur within Ward Cove (not Tongass Narrows) where the action areas for trestle and dolphin construction overlap and are identical in size, so take is not reduced despite the smaller area of trestle effects.

The Level A harassment zone for harbor seals for impact pile driving of 30-inch piles is 175 meters, and for impact driving of 36 and 48-inch piles, the zone is 325 meters. For other pile driving activities the zones are much smaller. Impact pile driving would be shut down before a harbor seal enters within 200 meters during impact pile driving of all piles; however, take by Level A harassment of harbor seals is requested outside the 200m shutdown zone for larger piles with zones exceeding 200m. Impact driving would occur for no more than 10 minutes per day on 20 days of construction. As above we use group size of 5 individuals and expect 1 group per day to be exposed in the Level A harassment zone. Although mere ''exposure'' within the Level A harassment zone is not indicative of an animal incurring auditory injury due to the fact that injury results from accumulation of energy over an assumed duration of exposure, we conservatively propose to authorize 100 Level A harassment takes of harbor seal (5 animals in a group x 1 groups per day x 20 days = 100 animals). Because these animals exposed in the Level A harassment zone duplicate those exposed in the Level B zone, the authorized Level B harassment take is the number of Level B harassment zone exposures minus the Level A take or 950 animals (1050–100).

Dall's Porpoise

As discussed above we assume a single group of 15 individuals in the project area each month. The take calculation was estimated based on the conservative group size from above (15) multiplied by the number of expected groups per month (1) multiplied by the number of months of pile driving for the project (4). Thus we estimate Level B harassment take of 60 individuals ($15 \times 1 \times 4$).

Harbor Porpoise

As discussed above we assume a conservative group size of 5 individuals occurring no more than twice in the project area each month. The take calculation was estimated based on the group size from above (5) multiplied by the number of expected groups per month (2) multiplied by the number of months of pile driving for the project (4). Thus we estimate Level B harassment take of 40 individuals ($5 \times 2 \times 4$).

Effects of Specified Activities on Subsistence Uses of Marine Mammals

The availability of the affected marine mammal stocks or species for subsistence uses may be impacted by this activity. The subsistence uses that may be affected and the potential impacts of the activity on those uses are described below. The information from this section is analyzed to determine whether the necessary findings may be made in the *Unmitigable Adverse Impact Analysis and Determination* section.

Subsistence harvest of harbor seals by Alaska Natives is not prohibited by the MMPA. Since surveys of harbor seal subsistence harvest in Alaska began in 1992, there have been declines in the number of households hunting and harvesting seals in Southeast Alaska (Wolf *et al.* 2013). Subsistence harvest data for the Clarence Strait stock indicates an average annual harvest in the years 2004–2008 of 164 harbor seals (80 near Ketchikan) and an average annual harvest in the years 2011–2012 of 40 harbor seals (summarized in Muto *et al.* 2016a from Wolf *et al.* 2013). In 2008, two Steller sea lions were harvested by Ketchikan-based subsistence hunters, but this is the only record of sea lion harvest by residents of Ketchikan. In 2012, the community of Ketchikan had an estimated subsistence take of 22 harbor seals (Wolf *et al.* 2013). This is the most recent data for Ketchikan. The ADF&G has not recorded harvest of cetaceans in the area (ADF&G 2018). Hunting usually occurs in October and November (ADF&G 2009), but there are also records of relatively high harvest in May (Wolfe *et al.* 2013).

In June 2019, attempts were made by PSSA to contact the Alaska Harbor Seal Commission, the Alaska Sea Otter and Steller Sea Lion Commission, and the Ketchikan Indian Community (KIC, Federal-recognized Tribe) to discuss this

project. The Alaska Harbor Seal Commission is currently not operational. Comments were not received from the Alaska Sea Otter and Steller Sea Lion Commission. PSSA met with KIC and KIC submitted comments for the Army Corps of Engineers permit for this project. They did not express concerns about subsistence hunting.

Construction activities at the project site would be expected to cause only short term, non-lethal disturbance of marine mammals. Construction activities are localized and temporary in the previously developed Ward Cove, mitigation measures will be implemented to minimize disturbance of marine mammals in the action area, and, the project will not result in significant changes to availability of subsistence resources. Impacts on the abundance or availability of either species to subsistence hunters in the region are thus not anticipated.

Proposed Mitigation

In order to issue an IHA under Section 101(a)(5)(D) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to the activity, and other means of effecting the least practicable impact on the species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of the species or stock for taking for certain subsistence uses. 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, 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, as well as subsistence uses. 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 following mitigation measures are proposed in the IHA:

- *Schedule:* Pile driving or removal must occur during daylight hours. If poor environmental conditions restrict visibility (*e.g.,* from excessive wind or fog, high Beaufort state), pile installation would be delayed;
- *Pile Driving Delay/Shut-Down:* For use of in-water heavy machinery/vessel (*e.g.,* dredge), PSSA must implement a minimum shutdown zone of 10 m radius around the pile/vessel. For vessels, PSSA must cease operations and reduce vessel speed to the minimum required to maintain steerage and safe working conditions. In addition, if an animal comes within the shutdown zone (see Table 8) of a pile being driven or removed, PSSA would shut down. The shutdown zone would only be reopened if they observe the animal exiting the zone or when a marine mammal has not been observed within the shutdown zone for a 15-minute period. If pile driving is stopped, pile installation would not commence if any marine mammals are observed anywhere within the Level A harassment zone. Pile driving activities must only be conducted during daylight hours when it is possible to visually monitor for marine mammals. If a species for which authorization has not been granted, or if a species for which authorization has been granted but the authorized takes are met, PSSA must delay or shut-down pile driving if the marine mammal approaches or is observed within the Level A and/or B harassment zones. In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a manner prohibited by the IHA, such as serious injury or mortality, the protected species observer (PSO) on watch must immediately call for the cessation of the specified activities and immediately report the incident to the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, and NMFS Alaska Regional Office.

TABLE 8—SHUTDOWN AND MONITORING ZONES FOR EACH ACTIVITY TYPE AND STOCK

Pile size	Harbor seal shutdown distance (m)	Other marine mammal shutdown distance (m)	Level B harbor seal monitoring zone (m)
Vibratory Pile Driving/Removal:			
30-inch piles	10	3,645	3,645
36-inch piles	15	3,645	3,645
48-inch piles	15	3,645	3,645
Impact Pile Driving:			
30-inch piles	200	3,645	3,645
36-inch piles	200	3,645	3,645
48-inch piles	200	3,645	3,645
Rock Anchoring:			
36-inch piles	40	3,645	3,645
48-inch piles	40	3,645	3,645
All Other Activities:			
Any activity	10	N/A	N/A

Note: A Level A harbor seal monitoring zone is implemented for impact pile driving of 36 and 48-inch diameter piles out to the extent of the Level A harassment zone (325 m). Level B monitoring zone (for the three species with authorized take) and other marine mammal shutdown distance of 3,645 m reflects the farthest distance before sound is inhibited by land.

• *Soft-start:* For all impact pile driving, a ''soft start'' technique must be used at the beginning of each pile installation day, or if pile driving has ceased for more than 30 minutes, to allow any marine mammal that may be in the immediate area to leave before hammering at full energy. The soft start requires PSSA to provide an initial set of three strikes from the impact hammer at reduced energy, followed by a 30 second waiting period, then two subsequent 3–strike sets. If any marine mammal is sighted within the Level A shutdown zone prior to pile-driving, or during the soft start, PSSA must delay pile-driving until the animal is confirmed to have moved outside and is on a path away from the Level A harassment zone or if 15 minutes have elapsed since the last sighting;

• *Sediment control:* All material that comes out of the top of the pile during pile driving (drill cutting discharge) must be collected on a barge and transported to a permitted upland location for disposal. Pile driving, temporary pile removal, and collection of excavated material operations must be surrounded by a 50-feet deep silt curtain; and

• *Other best management practices:* PSSA will drive all piles with a vibratory hammer to the maximum extent possible (*i.e.,* until a desired depth is achieved or to refusal) prior to using an impact hammer. PSSA will also use the minimum hammer energy needed to safely install the piles.

Based on our evaluation of the applicant's proposed measures, NMFS has preliminarily determined that the proposed 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, and on the availability of such species or stock for subsistence uses.

Proposed Monitoring and Reporting

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

Visual Monitoring

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

Four PSO's would be used to monitor the project and their locations are shown in Figure 12 of the monitoring plan. A primary PSO must be placed near the project site in Ward Cove where pile driving would occur. The primary purpose of this observer is to monitor and implement the Level A shutdown and monitoring zones. Three additional PSOs must be positioned in order to focus on monitoring the Level B harassment and other species shutdown zone. PSOs would scan the waters using binoculars, and/or spotting scopes, and would use a handheld GPS or range-finder device to verify the distance to each sighting from the project site. All PSOs would be trained in marine mammal identification and behaviors and are required to have no other project-related tasks while conducting monitoring. The following measures also apply to visual monitoring:

(1) Monitoring must be conducted by NMFS-approved qualified observers, who will 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 biologists, with the following minimum qualifications:

(a) 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;

(b) Advanced education in biological science or related field (undergraduate degree or higher required);

(c) Experience and ability to conduct field observations and collect data according to assigned protocols (this may include academic experience);

(d) Experience or training in the field identification of marine mammals, including the identification of behaviors;

(e) Sufficient training, orientation, or experience with the construction operation to provide for personal safety during observations;

(f) 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 and times when in-water construction activities were suspended to avoid potential incidental injury from construction sound of marine mammals observed within a defined shutdown zone; and marine mammal behavior; and

(g) 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

(2) PSSA shall submit observer CVs for approval by NMFS.

A draft marine mammal monitoring report would be submitted to NMFS within 90 days after the completion of

pile driving and removal activities, or 60 days prior to a requested date of issuance of any future IHAs for projects at the same location, whichever comes first. It will include an overall description of work completed, a narrative regarding marine mammal sightings, and associated marine mammal observation data sheets. Specifically, the report must include:

- Dates and times (begin and end) of all marine mammal monitoring;
- Construction activities occurring during each daily observation period, including how many and what type of piles were driven or removed and by what method (*i.e.,* impact or vibratory);
- Weather parameters and water conditions during each monitoring period (*e.g.,* wind speed, percent cover, visibility, sea state);
- The number of marine mammals observed, by species, relative to the pile location and if pile driving or removal was occurring at time of sighting;
- Age and sex class, if possible, of all marine mammals observed;
- PSO locations during marine mammal monitoring;
- Distances and bearings of each marine mammal observed to the pile being driven or removed for each sighting (if pile driving or removal was occurring at time of sighting);
- Description of any marine mammal behavior patterns during observation, including direction of travel;
- Number of individuals of each species (differentiated by month as appropriate) detected within the monitoring zone, and estimates of number of marine mammals taken, by species (a correction factor may be applied to total take numbers, as appropriate);
- Detailed information about any implementation of any mitigation triggered (*e.g.,* shutdowns and delays), a description of specific actions that ensued, and resulting behavior of the animal, if any;
- Description of attempts to distinguish between the number of individual animals taken and the number of incidences of take, such as ability to track groups or individuals; and
- An extrapolation of the estimated takes by Level B harassment based on the number of observed exposures within the Level B harassment zone and the percentage of the Level B harassment zone that was not visible, when applicable.

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

Reporting Injured or Dead Marine Mammals

In the event that personnel involved in the construction activities discover an injured or dead marine mammal, PSSA shall report the incident to the Office of Protected Resources (OPR), NMFS and to the regional stranding coordinator as soon as feasible. The 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.

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).

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

The takes from Level A and Level B harassment would be due to potential behavioral disturbance, TTS, and PTS. No mortality is anticipated given the nature of the activity and measures designed to minimize the possibility of injury to marine mammals. The potential for harassment is minimized through the construction method and the implementation of the planned mitigation measures (see *Proposed Mitigation* section).

The Level A harassment zones identified in Table 7 are based upon an animal exposed to impact pile driving multiple piles per day. Considering duration of impact driving each pile (up to 3 minutes) and breaks between pile installations (to reset equipment and move pile into place), this means an animal would have to remain within the area estimated to be ensonified above the Level A harassment threshold for multiple hours. This is highly unlikely given marine mammal movement throughout the area. If an animal was exposed to accumulated sound energy, the resulting PTS would likely be small (*e.g.,* PTS onset) at lower frequencies where pile driving energy is concentrated.

Behavioral responses of marine mammals to pile driving at the project site, if any, are expected to be mild and temporary. Marine mammals within the Level B harassment zone may not show any visual cues they are disturbed by activities (as noted during modification to the Kodiak Ferry Dock) or could become alert, avoid the area, leave the area, or display other mild responses that are not observable such as changes in vocalization patterns. Given the short duration of noise-generating activities per day and that pile driving and removal would occur across 4–5 months, any harassment would be temporary. There are no other areas or times of known biological importance for any of the affected species.

In addition, it is unlikely that minor noise effects in a small, localized area of habitat would have any effect on the stocks' ability to recover. In combination, we believe that these

factors, as well as the available body of evidence from other similar activities, demonstrate that the potential effects of the specified activities will have only minor, short-term effects on individuals. The specified activities are not expected to impact rates of recruitment or survival and will therefore not result in population-level impacts.

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

- No mortality is anticipated or authorized;
- Authorized Level A harassment would be very small amounts and of low degree;
- PSSA would implement mitigation measures such as vibratory driving piles to the maximum extent practicable, soft-starts, silt curtains, removal of potentially contaminated sediments, and shut downs; and
- Monitoring reports from similar work in Alaska have documented little to no effect on individuals of the same species impacted by the specified activities.

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

Small Numbers

As noted 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.

The amount of take NMFS proposes to authorize is 3.8 percent of the Clarence Strait stock's best population estimate for harbor seals. The Alaska stock of Dall's porpoise has no official NMFS abundance estimate as the most recent estimate is greater than eight years old. Nevertheless, the most recent estimate was 83,400 animals and it is highly unlikely this number has drastically declined. Therefore, the 60 authorized takes of this stock clearly represent small numbers of this stock. The take for harbor porpoise is 4.1 percent of the stock. These are all likely conservative estimates because they assume all takes are of different individual animals which is likely not the case. Some individuals may return multiple times in a day but PSOs would count them as separate takes if they cannot be individually identified.

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

Unmitigable Adverse Impact Analysis and Determination

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

As discussed above in the subsistence uses section, subsistence harvest of harbor seals and other marine mammals is rare in the area and local subsistence users have not expressed concern about this project. All project activities will take place within the industrial area of Tongass Narrows and Ward Cove immediately adjacent to Ketchikan where subsistence activities do not generally occur. The project also will not have an adverse impact on the availability of marine mammals for subsistence use at locations farther away, where these construction activities are not expected to take place. Some minor, short-term harassment of the harbor seals could occur, but any effects on subsistence harvest activities in the region will be minimal, and not have an adverse impact.

Based on the effects and location of the specified activity, and the mitigation and monitoring measures, NMFS has preliminarily determined that there will not be an unmitigable adverse impact on subsistence uses from PSSA's planned activities.

Endangered Species Act (ESA)

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

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.

Proposed Authorization

As a result of these preliminary determinations, NMFS proposes to issue an IHA to PSSA to conduct the Ward Cove Cruise Ship Dock project near Ketchikan, Alaska for one year from the date of issuance, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated. A draft of the proposed IHA can be found at *https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act.*

Request for Public Comments

We request comment on our analyses, the proposed authorization, and any other aspect of this Notice of Proposed IHA for the proposed Ward Cove Cruise Ship Dock project. We also request at this time comment on the potential renewal of this proposed IHA as described in the paragraph below. Please include with your comments any supporting data or literature citations to help inform decisions on the request for this IHA or a subsequent Renewal IHA.

On a case-by-case basis, NMFS may issue a one-year Renewal IHA following notice to the public providing an additional 15 days for public comments when (1) up to another year of identical, or nearly identical, activities as described in the Specified Activities

section of this notice is planned or (2) the activities as described in the Specified Activities section of this notice would not be completed by the time the IHA expires and a Renewal would allow for completion of the activities beyond that described in the Dates and Duration section of this notice, provided all of the following conditions are met:

- A request for renewal is received no later than 60 days prior to the needed Renewal IHA effective date (recognizing that Renewal IHA expiration date cannot extend beyond one year from expiration of the initial IHA);
- The request for renewal must include the following:

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

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

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

Dated: February 26, 2020.

Donna S. Wieting,

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

[FR Doc. 2020–04280 Filed 3–2–20; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XT036]

Atlantic Highly Migratory Species; Atlantic Shark Management Measures; 2020 Research Fishery

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

ACTION: Notice of public meeting.

SUMMARY: On November 22, 2019, NMFS published a notice inviting qualified commercial shark permit holders to submit applications to participate in the 2020 shark research fishery. The shark research fishery allows for the collection of fishery-dependent data for future stock assessments and cooperative research with commercial fishermen to meet the shark research objectives of the Agency. Every year, the permit terms and permitted activities (*e.g.,* number of hooks and retention limits) specifically authorized for selected participants in the shark research fishery are designated depending on the scientific and research needs of the Agency, as well as the number of NMFS-approved observers available. In order to inform selected participants of this year's specific permit requirements and ensure all terms and conditions of the permit are met, NMFS is holding a mandatory meeting (via conference call) for selected participants. The date and time of that meeting is announced in this notice.

DATES: A conference call will be held on March 9, 2020.

ADDRESSES: A conference call will be conducted. See **SUPPLEMENTARY INFORMATION** for information on how to access the conference call.

FOR FURTHER INFORMATION CONTACT: Guy DuBeck at (301) 427–8503, or Delisse Ortiz at (240) 681–9037.

SUPPLEMENTARY INFORMATION: The Atlantic shark fisheries are managed under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). The 2006 Consolidated Atlantic Highly Migratory species (HMS) Fishery Management Plan (FMP) is implemented by regulations at 50 CFR part 635.

The final rule for Amendment 2 to the 2006 Consolidated HMS FMP (73 FR 35778, June 24, 2008, corrected at 73 FR 40658, July 15, 2008) established, among other things, a shark research fishery to maintain time-series data for stock assessments and to meet NMFS' research objectives. The shark research fishery gathers important scientific data and allows selected commercial fishermen the opportunity to earn more revenue from selling the sharks caught, including sandbar sharks. Only the commercial shark fishermen selected to participate in the shark research fishery are authorized to land/harvest sandbar sharks subject to the sandbar quota available each year. The 2020 base annual sandbar shark quota is 90.7 mt dressed weight (dw). The selected shark research fishery participants also may fish using the research large coastal shark (635.27(b)(1)(iii)(B)), small coastal shark (635.27(b)(1)(i)(C) and 635.27(b)(1)(ii)(D)), and pelagic shark quotas (635.27(b)(1)(iii)(D)) subject to the retention limits at 635.24.

On November 22, 2019 (84 FR 64465), NMFS published a notice inviting qualified commercial shark directed and incidental permit holders to submit an application to participate in the 2020 shark research fishery. NMFS received 16 applications and selected 5 participants. In order to inform selected participants of this year's specific permit requirements and to ensure all terms and conditions of the permit are met, per the requirements of § 635.32(f)(4), NMFS is holding a mandatory permit holder meeting via conference call.

Conference Call Date, Time, and Dial-In Number

The conference call will be held on March 9, 2020, from 1:30 to 3:30 p.m. (EST). Participants and interested parties should call 888–469–1244 and use the passcode 5585842. This call is mandatory for selected participants. Selected participants who do not attend will not be allowed to participate in the shark research fishery. While the conference call is mandatory for selected participants, other interested parties may call in and listen to the discussion. Selected participants are encouraged to invite their captain, crew, or anyone else who may assist them in meeting the terms and conditions of the shark research fishery permit.

Dated: February 27, 2020.

Karyl K. Brewster-Geisz,

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

[FR Doc. 2020–04324 Filed 3–2–20; 8:45 am]

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DEPARTMENT OF EDUCATION

Applications for New Awards; Technical Assistance and Dissemination To Improve Services and Results for Children With Disabilities—Model Demonstration Projects To Develop Coaching Systems

AGENCY: Office of Special Education and Rehabilitative Services, Department of Education.

ACTION: Notice.

SUMMARY: The Department of Education (Department) is issuing a notice inviting applications for new awards for fiscal