numbers of marine mammals. When the predicted number of individuals to be taken is fewer than one-third of the species or stock abundance, the take is considered to be of small numbers. Additionally, other qualitative factors may be considered in the analysis, such as the temporal or spatial scale of the activities.

Table 16 demonstrates the number of instances in which individuals of a given species could be exposed to received noise levels that could cause take of marine mammals. Our analysis shows that less than 2 percent of all but one stock could be taken by harassment. While the percentage of stock taken from the Oregon/Washington coastal stock of harbor seal appears to be high (74.5 percent), in reality the number of individuals taken by harassment would be far less. Instead, it is more likely that there will be multiple takes of a smaller number of individuals over multiple days, lowering the number of individuals taken. The range of the Oregon/Washington coastal stock includes harbor seals from the California/Oregon border to Cape Flattery on the Olympic Peninsula of Washington, which is a distance of approximately 150 miles (240 km) (Carretta *et al.,* 2002). Additionally, there are over 150 Oregon/Washington coastal harbor seal stock haulouts along the outer Washington coast spanning from the Columbia River north to Tatoosh Island on the northwestern tip of the Olympic Peninsula (Scordino, 2010). This figure does not include many additional haulout sites found along the Oregon coast. Given the expansive range of the Oregon/Washington coastal stock along with the numerous haulouts that have been documented on the Washington coast, it is unlikely that the number of individuals taken, limited largely to the pool of seals present in Grays Harbor, would exceed ⅓ of the stock. In consideration of various factors described above, we have determined that numbers of individuals taken would comprise less than one-third of the best available population abundance estimate of the Oregon/Washington coastal stock of harbor seal.

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

Unmitigable Adverse Impact Analysis and Determination

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

Endangered Species Act

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

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

National Environmental Policy Act

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

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

Authorization

NMFS has issued an IHA to AGP for conducting pile driving activities at the Port of Grays Harbor from July 16, 2024 through July 15, 2025, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated. The issued IHAs can be found at: *https://www.fisheries.noaa.gov/action/incidental-take-authorization-ag-processing-incs-port-grays-harbor-terminal-4-expansion-and.*

Dated: June 3, 2024.

Catherine Marzin,

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

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BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XD940]

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to the Log Export Dock Project on the Columbia River Near Longview, WA

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 Weyerhaeuser Company (Weyerhaeuser) for authorization to take marine mammals incidental to Log Export Dock Project on the Columbia River near Longview, Washington. 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-time, 1-year renewal that could be issued under certain circumstances and if all requirements are met, as described in the Request for Public Comments section at the end of this notice. NMFS will consider public comments prior to making any final decision on the issuance of the requested MMPA authorization and agency responses will be summarized in the final notice of our decision.

DATES: Comments and information must be received no later than July 8, 2024.

ADDRESSES: Comments should be addressed to Jolie Harrison, Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service, and should be submitted via email to *ITP.wachtendonk@noaa.gov.* Electronic copies of the application and supporting documents, as well as a list of the references cited in this document, may be obtained online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-construction-activities.* In case of problems accessing these documents, please call the contact listed below.

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

FOR FURTHER INFORMATION CONTACT: Rachel Wachtendonk, Office of Protected Resources (OPR), NMFS, (301) 427–8401.

SUPPLEMENTARY INFORMATION:

Background

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

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

This action is consistent with categories of activities identified in categorical exclusion B4 (IHAs with no anticipated serious injury or mortality) of the companion manual for NAO 216–6A, which do not individually or cumulatively have the potential for significant impacts on the quality of the human environment and for which we have not identified any extraordinary circumstances that would preclude this categorical exclusion. Accordingly, NMFS has preliminarily determined that the issuance of the proposed IHA qualifies to be categorically excluded from further NEPA review. 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 October 29, 2023, NMFS received a request from Weyerhaeuser for an IHA to take marine mammals incidental to pile driving and removal activities associated with the Log Export Dock Project on the Columbia River near Longview, Washington. Following NMFS' review of the application, Weyerhaeuser submitted a revised version on March 14, 2024. The application was deemed adequate and complete on April 16, 2024. Weyerhaeuser's request is for take of harbor seal (*Phoca vitulina*), California sea lion (*Zalophus californiaus*), and Steller sea lion (*Eumatopius jubatus*) by Level B harassment and, for harbor seals by Level A harassment. Neither Weyerhaeuser nor NMFS expect serious injury or mortality to result from this activity and, therefore, an IHA is appropriate.

Description of Proposed Activity

Overview

Weyerhaeuser is proposing the partial demolition and replacement of the existing Log Export dock on the Columbia River, near Longview, Washington (figure 1). The existing dock is a timber structure that was constructed in the early 1970s and has exceeded its designated lifespan. Over the past decade, individual timber piles have been replaced with steel piles but continued deterioration has led Weyerhaeuser to pursue a reconstruction design that will replace all of the timber elements with steel and concrete. For the dock to remain in operation during construction, only half of the dock would be demolished and replaced under this authorization. The reconstruction work of the other half of the dock will be under a separate future authorization. The proposed project includes impact and vibratory pile installation and vibratory pile removal.

Sounds resulting from pile driving and removal may result in the incidental take of marine mammals by Levels A and B harassment in the form of auditory injury or behavioral harassment. Underwater sound would be constrained to the Columbia River and would be truncated by land masses in the river. Construction activities would start in September 2025 and last 5 months.

Dates and Duration

The proposed IHA would be effective from September 1, 2025, through August 31, 2026. Vibratory and impact pile driving and auger drilling are expected to start in September 2025 and take about 120 days of in-water work within the U.S. Army Corps of Engineers (USACE) and the U.S. Fish and Wildlife Service (USFWS)-designated in-water work window (September 1, 2025–January 3, 2026). All pile installation will occur during the work window, which would minimize potential exposure of Endangered Species Act (ESA) listed fish species from impact pile driving. An additional 30 days of vibratory pile removal may occur outside the window. All pile driving and removal would be completed during daylight hours.

Specific Geographic Region

The project is located at the Weyerhaeuser marine terminal, near Longview, Washington, at river mile (RM) 66 of the Columbia River. Project activities would occur within the existing dock's current footprint.

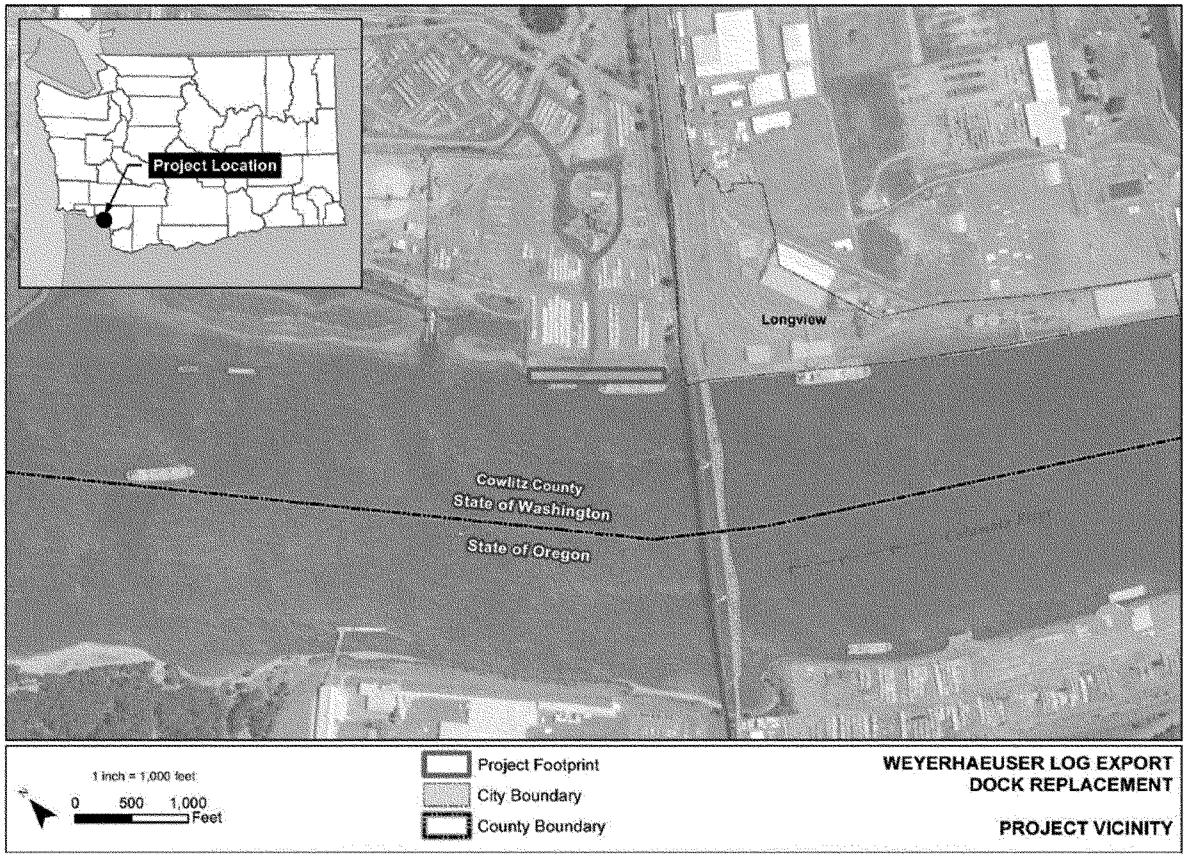

Figure 1 -- Map of Proposed Project Area near Longview, Washington

Detailed Description of the Specified Activity

The demolition and replacement of the 612-foot (ft), or 186.5-meter (m) berth A of the Log Export Dock would include the removal of 983 16-inch (in), or 0.41-m, timber piles, 36 16-in (0.41-m) steel pipe piles, 10 12-in (0.30-m) steel H-piles, 7 12-in (0.30-m) steel pipe piles, and 20 14- or 16-in (0.36- or 0.41-m) steel fender piles. Existing piles would be primarily removed by the deadpull method, with piles being removed with the vibratory hammer if the deadpull is unsuccessful. Broken or damaged piles would be cut at the mudline. It is anticipated that 75 percent of the existing 983 timber piles will be removed by the deadpull method, with the remaining 246 being removed with the vibratory hammer. The new structure will be supported by the installation of 325 30-in (0.76-m) steel pipe piles. In addition, up to 26 24-in (0.61 m) temporary steel pipe piles may be installed and removed to support permanent pile installation. Temporary and permanent piles would be initially installed with a vibratory hammer, with permanent piles being followed by an impact hammer to embed them to their final depth. To reduce underwater noise produced by impact pile driving, an unconfined bubble curtain will be used during impact pile installation. Table 1 provides a summary of the pile driving activities.

Concurrent Activities—In order to maintain project schedules, it is possible that multiple pieces of equipment would operate at the same time within the project area. Piles may be driven on the same day or, less commonly, at the same time, by two impact hammers, one impact hammer and one vibratory hammer, or two vibratory hammers. The method of installation, and whether concurrent pile driving scenarios will be implemented, will be determined by the construction crew once the project has begun. Therefore, the total take estimate reflects the worst-case scenario (both hammers installing 30-in steel pipe piles) for the proposed project. However, the most likely scenario is the vibratory removal of a 16-in timber pile at the same time as installing a 30-in steel pipe piles by vibratory or impact methods.

TABLE 1—NUMBER AND TYPE OF PILES TO BE INSTALLED AND REMOVED

Activity	Pile type and size	Number of piles	Method	Piles per day	Total days
Demolition	16-in timber pile	246	Vibratory	8	30
	12-in steel pipe pile	7		8	60
	12-in steel H-pile	10		8	60
	16-in steel pipe pile	36		8	60
	14- or 16-in steel fender pile	20		8	60
	24-in temporary steel pipe pile	26		8	120

TABLE 1—NUMBER AND TYPE OF PILES TO BE INSTALLED AND REMOVED—Continued

Activity	Pile type and size	Number of piles	Method	Piles per day	Total days
Installation	24-in temporary steel pipe pile	26	Vibratory	8	120
	30-in steel pipe pile	325	Vibratory	8	120
			Impact	8	120

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

Description of Marine Mammals in the Area of Specified Activities

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

Table 2 lists all species or stocks for which take is expected and proposed to be authorized for this activity and summarizes information related to the population or stock, including regulatory status under the MMPA and ESA and potential biological removal (PBR), where known. PBR is defined by the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population (as described in NMFS' SARs). While no serious injury or mortality is anticipated or proposed to be authorized here, PBR and annual serious injury and mortality from anthropogenic sources are included here as gross indicators of the status of the species or stocks and other threats.

Marine mammal abundance estimates presented in this document represent the total number of individuals that make up a given stock or the total number estimated within a particular study or survey area. NMFS' stock abundance estimates for most species represent the total estimate of individuals within the geographic area, if known, that comprises that stock. For some species, this geographic area may extend beyond U.S. waters. All managed stocks in this region are assessed in NMFS' U.S. 2022 SARs. All values presented in table 2 are the most recent available at the time of publication (including from the draft 2023 SARs) and are available online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments.*

TABLE 2—MARINE MAMMAL SPECIES [1] LIKELY IMPACTED BY THE SPECIFIED ACTIVITIES

Common name	Scientific name	Stock	ESA/MMPA status; Strategic (Y/N) [2]	Stock abundance (CV, N_{min}, most recent abundance survey) [3]	PBR	Annual M/SI [4]
Order Carnivora—Pinnipedia						
Family Otariidae (eared seals and sea lions):						
California Sea Lion	*Zalophus californianus*	U.S	-, -, N	257,606 (N/A, 233,515, 2014).	14,011	>321
Steller Sea Lion	*Eumetopias jubatus*	Eastern	-, -, N	36,308 (N/A, 36,308, 2022) [5].	2,178	93.2
Family Phocidae (earless seals):						
Harbor Seal	*Phoca vitulina*	OR/WA Coastal	-, -, N	UNK (UNK, UNK, 1999)	UND	10.6

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

[2] ESA status: Endangered (E), Threatened (T)/MMPA status: Depleted (D). A dash (-) indicates that the species is not listed under the ESA or designated as depleted under the MMPA. Under the MMPA, a strategic stock is one for which the level of direct human-caused mortality exceeds PBR or which is determined to be declining and likely to be listed under the ESA within the foreseeable future. Any species or stock listed under the ESA is automatically designated under the MMPA as depleted and as a strategic stock.

[3] NMFS marine mammal SARs online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports-region.* CV is coefficient of variation; N_{min} is the minimum estimate of stock abundance. In some cases, CV is not applicable

[4] These values, found in NMFS's SARs, represent annual levels of human-caused mortality plus serious injury from all sources combined (*e.g.,* commercial fisheries, 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.

[5] Nest is best estimate of counts, which have not been corrected for animals at sea during abundance surveys. Estimates provided are for the U.S. only.

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

California Sea Lion

California sea lions are the most frequently sighted sea lion found in Washington waters and use haulout sites along the outer coast, the Strait of Juan de Fuca, and in the Puget Sound. California sea lions have been observed in increasing numbers farther and farther up the Columbia River since the 1980s, first to the Astoria area, and then to the Cowlitz River and Bonneville Dam (Washington Department of Fish and Wildlife (WDFW), 2020). However, the number of California sea lions observed at Bonneville Dam has been in decline, ranging from 149 individuals in 2016 to 24 individuals in 2021, including no observations of California sea lions during fall and winter of 2019 to 2020 (van der Leeuw and Tidwell, 2022).

In recent years, California sea lions have been reported below Bonneville Dam feeding on returning adult salmon. California sea lions have been observed hauling out on shoals and log booms in Carroll Slough near the confluence of the Cowlitz and Columbia rivers during winter and spring months, (Jeffries *et al.,* 2000) about 2.2 miles (mi), or 3.5 kilometers (km), upstream of the project site.

Steller Sea Lion

Steller sea lions that occur in the Lower Columbia River, including the project vicinity, are members of the eastern Distinct Population Segment (DPS), ranging from Southeast Alaska to central California, including Washington (Jeffries *et al.,* 2000; Scordino, 2006; NMFS, 2013). In Washington, Steller sea lions occur mainly along the outer coast from the Columbia River to Cape Flattery (Jeffries *et al.,* 2000). Smaller numbers use the Strait of Juan de Fuca, San Juan Islands, and Puget Sound south to about the Nisqually River mouth in Thurston and Pierce counties (Wiles, 2015). The eastern DPS of Steller sea lions has historically bred on rookeries located in Southeast Alaska, British Columbia, Oregon, and California. However, within the last several years, a new rookery has become established on the outer Washington coast at the Carroll Island and Sea Lion Rock complex (Muto *et al.,* 2019).

Similar to California sea lions, Steller sea lions have also been observed at the base of Bonneville Dam in recent years, feeding on white sturgeon (*Acipenser transmontanus*) and salmonids (WDFW, 2020). However, Steller sea lions were not observed entering the Columbia River in significant numbers until the 1980s and they were not observed at the dam until after 2003.

Harbor Seal

Harbor seals are the most common, widely distributed marine mammal found in Washington marine waters and are frequently observed in the nearshore marine environment. The Oregon/Washington Coastal Stock was most recently estimated at 24,732 harbor seals in 1999 and more recent abundance data is not available and no current estimate of abundance for this stock (Carretta *et al.,* 2022). Harbor seals use hundreds of sites to rest or haul out along coastal and inland waters, including intertidal sand bars and mudflats in estuaries; intertidal rocks and reefs; sandy, cobble, and rocky beaches; islands; and log booms, docks, and floats in all marine areas of the state (Jeffries *et al.,* 2003).

Harbor seals in this population are typically non-migratory and reside year-round in the Columbia River, and generally remain in the same area throughout the year for breeding and feeding. Pupping seasons in coastal estuaries vary geographically; in the Columbia River, Willapa Bay, and Grays Harbor, pups are born from mid-April through June (Jeffries *et al.,* 2003). Harbor seals in the Columbia River do exhibit some seasonal movement upriver, including into or through the project area of ensonification, to follow winter and spring runs of Pacific eulachon (*Thaleichthys pacificus*) and outmigrating juvenile salmon (*Oncorhynchus spp.*), and they are observed regularly in portions of the Columbia River including the action area. Within the lower Columbia River, they tend to congregate to feed at the mouths of tributary rivers, including the Cowlitz and Kalama rivers (RMs 68 and 73, respectively). WDFW's atlas of seal and sea lion haulout sites (Jeffries *et al.,* 2000) identifies shoals near the confluence of the Cowlitz and Columbia rivers located approximately 2.4 mi (3.9 km) upstream of the project site as a documented haulout for harbor seals.

Marine Mammal Hearing

Hearing is the most important sensory modality for marine mammals underwater, and exposure to anthropogenic sound can have deleterious effects. To appropriately assess the potential effects of exposure to sound, it is necessary to understand the frequency ranges marine mammals are able to hear. Not all marine mammal species have equal hearing capabilities (*e.g.,* Richardson *et al.,* 1995; Wartzok and Ketten, 1999; Au and Hastings, 2008). To reflect this, Southall *et al.* (2007, 2019) recommended that marine mammals be divided into hearing groups based on directly measured (behavioral or auditory evoked potential techniques) or estimated hearing ranges (behavioral response data, anatomical modeling, *etc.*). Note that no direct measurements of hearing ability have been successfully completed for mysticetes (*i.e.,* low-frequency cetaceans). Subsequently, NMFS (2018) described generalized hearing ranges for these marine mammal hearing groups. Generalized hearing ranges were chosen based on the approximately 65-decibel (dB) threshold from the normalized composite audiograms, with the exception for lower limits for low-frequency cetaceans where the lower bound was deemed to be biologically implausible and the lower bound from Southall *et al.* (2007) retained. Marine mammal hearing groups and their associated hearing ranges are provided in table 3.

TABLE 3—MARINE MAMMAL HEARING GROUPS

[NMFS, 2018]

Hearing group	Generalized hearing range in hertz (Hz) and kilohertz (kHz) *
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* spp., river dolphins, Cephalorhynchids, *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 the ~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 *et al.,* 2013). This division between phocid and otariid pinnipeds is now reflected in the updated hearing groups proposed in Southall et al. (2019).

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

Potential Effects of Specified Activities on Marine Mammals and Their Habitat

This section provides a discussion of the ways in which components of the specified activity may impact marine mammals and their habitat. The Estimated Take of Marine Mammals 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 of Marine Mammals 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 whether those impacts are reasonably expected to, or reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.

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. 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 to 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 vibratory pile removal, and impact and vibratory pile driving. 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 (American National Standards Institute (ANSI), 1986; National Institute for Occupational Safety and Health (NIOSH), 1998; ANSI, 2005; NMFS, 2018). Non-impulsive sounds (*e.g.,* aircraft, 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).

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. The vibrations produced also cause liquefaction of the substrate surrounding the pile, enabling the pile to be extracted or driven into the ground more easily. 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).

The likely or possible impacts of Weyerhaeuser'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 be primarily acoustic in nature. Acoustic stressors include effects of heavy equipment operation during pile installation and removal, and sediment removal during auger drilling.

Acoustic Impacts

The introduction of anthropogenic noise into the aquatic environment from pile driving is the primary means by which marine mammals may be harassed from the proposed 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). In general, exposure to pile driving noise has the potential to result in an auditory threshold shift (TS) 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 as 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 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 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 TS 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 frequency range of the exposed species relative to the signal's frequency spectrum (*i.e.,* how an 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 TS approximates PTS onset (see Ward *et al.,* 1958, 1959; Ward, 1960; Kryter *et al.,* 1966; Miller, 1974; Ahroon *et al.,* 1996; Henderson *et al.,* 2008). PTS levels for marine mammals are estimates, as 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)—TTS is 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 (Southall *et al.,* 2007, 2019), a TTS of 6 dB is considered the minimum TS 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 (2015), 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 a 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.

Many studies have examined noise-induced hearing loss in marine mammals (see Finneran (2015) and Southall *et al.* (2019) for summaries). TTS is the mildest form of hearing impairment that can occur during exposure to sound (Kryter, 2013). While experiencing TTS, the hearing threshold rises, and a sound must be at a higher level in order to be heard. In terrestrial and marine mammals, TTS can last from minutes or hours to days (in cases of strong TTS). In many cases, hearing sensitivity recovers rapidly after exposure to the sound ends. For pinnipeds in water, measurements of TTS are limited to harbor seals, elephant seals (*Mirounga angustirostris*), bearded seals (*Erignathus barbatus*) and California sea lions (*Zalophus californianus*) (Kastak *et al.,* 1999, 2007; Kastelein *et al.,* 2019b, 2019c, 2021, 2022a, 2022b; Reichmuth *et al.,* 2019; Sills *et al.,* 2020). These studies examined hearing thresholds measured in marine mammals before and after exposure to intense or long-duration sound exposures. The difference between the pre-exposure and post-exposure thresholds can be used to determine the amount of TS at various post-exposure times.

The amount and onset of TTS depends on the exposure frequency. Sounds at low frequencies, well below the region of best sensitivity for a species or hearing group, are less hazardous than those at higher frequencies, near the region of best sensitivity (Finneran and Schlundt, 2013). At low frequencies, onset-TTS exposure levels are higher compared to those in the region of best sensitivity (*i.e.,* a low frequency noise would need to be louder to cause TTS onset when TTS exposure level is higher), as shown for harbor porpoises and harbor seals (Kastelein *et al.,* 2019a, 2019c). Note that in general, harbor seals have a lower TTS onset than other measured pinniped species (Finneran, 2015). In addition, TTS can accumulate across multiple exposures, but the resulting TTS will be less than the TTS from a single, continuous exposure with the same SEL (Mooney *et al.,* 2009; Finneran *et al.,* 2010; Kastelein *et al.,* 2014, 2015). This means that TTS predictions based on the total, SEL_{cum} will overestimate the amount of TTS from intermittent exposures, such as sonars and impulsive sources. Nachtigall *et al.* (2018) describe measurements of hearing sensitivity of multiple odontocete species (bottlenose dolphin, harbor porpoise, beluga, and false killer whale (*Pseudorca crassidens*)) when a relatively loud sound was preceded by a warning sound. These captive animals were shown to reduce hearing sensitivity when warned of an impending intense sound. Based on these experimental observations of captive animals, the authors suggest that wild animals may dampen their hearing during prolonged exposures or if conditioned to anticipate intense sounds. Additionally, the existing marine mammal TTS data come from a limited number of individuals within these species.

Relationships between TTS and PTS thresholds have not been studied in marine mammals, but such relationships are assumed to be similar to those in humans and other terrestrial mammals. PTS typically occurs at exposure levels at least several dBs above that inducing mild TTS (*e.g.,* a 40-dB TS approximates PTS onset (Kryter *et al.,* 1966; Miller, 1974), while a 6–dB TS approximates TTS onset (Southall *et al.,* 2007, 2019). Based on data from terrestrial mammals, a precautionary assumption is that the PTS thresholds for impulsive sounds (such as impact pile driving pulses as received close to the source) are at least 6 dB higher than the TTS threshold on a peak-pressure basis and PTS cumulative sound exposure level thresholds are 15 to 20 dB higher than TTS cumulative sound exposure level thresholds (Southall *et al.,* 2007, 2019). Given the higher level of sound or longer exposure duration necessary to cause PTS as compared with TTS, it is considerably less likely that PTS could occur.

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

Behavioral Harassment—Exposure to noise from pile driving and removal 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, let alone 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; National Research Council (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); or 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–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.

Stress Responses—An animal's perception of a threat may be sufficient to trigger stress responses consisting of some combination of behavioral responses, autonomic nervous system responses, neuroendocrine responses, or immune responses (*e.g.,* Seyle, 1950; Moberg, 2000). In many cases, an animal's first and sometimes most economical (in terms of energetic costs) response is behavioral avoidance of the potential stressor. Autonomic nervous system responses to stress typically involve changes in heart rate, blood pressure, and gastrointestinal activity. These responses have a relatively short duration and may or may not have a significant long-term effect on an animal's fitness.

Neuroendocrine stress responses often involve the hypothalamus-pituitary-adrenal system. Virtually all neuroendocrine functions that are affected by stress—including immune competence, reproduction, metabolism, and behavior—are regulated by pituitary hormones. Stress-induced changes in the secretion of pituitary hormones have been implicated in failed reproduction, altered metabolism, reduced immune competence, and behavioral disturbance (*e.g.,* Moberg, 1987; Blecha, 2000). Increases in the circulation of glucocorticoids are also equated with stress (Romano *et al.,* 2004).

The primary distinction between stress (which is adaptive and does not normally place an animal at risk) and ''distress'' is the cost of the response. During a stress response, an animal uses glycogen stores that can be quickly replenished once the stress is alleviated. In such circumstances, the cost of the stress response would not pose serious fitness consequences. However, when an animal does not have sufficient energy reserves to satisfy the energetic costs of a stress response, energy resources must be diverted from other functions. This state of distress will last until the animal replenishes its energetic reserves sufficient to restore normal function.

Relationships between these physiological mechanisms, animal behavior, and the costs of stress responses are well studied through controlled experiments and for both laboratory and free-ranging animals (*e.g.,* Holberton *et al.,* 1996; Hood *et al.,* 1998; Jessop *et al.,* 2003; Krausman *et al.,* 2004; Lankford *et al.,* 2005). Stress responses due to exposure to anthropogenic sounds or other stressors and their effects on marine mammals have also been reviewed (Fair and Becker, 2000; Romano *et al.,* 2002b) and, more rarely, studied in wild populations (*e.g.,* Romano *et al.,* 2002a). For example, Rolland *et al.* (2012) found that noise reduction from reduced ship traffic in the Bay of Fundy was associated with decreased stress in North Atlantic right whales. These and other studies lead to a reasonable expectation that some marine mammals will experience physiological stress responses upon exposure to acoustic stressors and that it is possible that some of these would be classified as ''distress.'' In addition, any animal experiencing TTS would likely also experience stress responses (NRC, 2003), however distress is an unlikely result of this project based on observations of marine mammals during previous, similar projects in the area.

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.

Airborne Acoustic Effects—Although pinnipeds are known to haul out regularly on manmade objects, we believe that incidents of take resulting solely from airborne sound are unlikely because there are no known haulouts within the project vicinity on the Columbia River. The closest haulout site for California sea lions and harbor seals is 2.2 mi upstream of the project site in Carroll Slough near the confluence of the Cowlitz and Columbia rivers. Steller sea lions do not have any known haulouts near the project area. There is a possibility that an animal could surface in-water, but with head out, within the area in which airborne sound exceeds relevant thresholds and thereby be exposed to levels of airborne sound that we associate with harassment, but any such occurrence would likely be accounted for in our estimation of incidental take from underwater sound. Therefore, authorization of incidental take resulting from airborne sound for pinnipeds is not warranted, and airborne sound is not discussed further here.

Marine Mammal Habitat Effects

Weyerhaeuser's construction activities could have localized, temporary impacts on marine mammal habitat by increasing in-water SPLs and slightly decreasing water quality. No net habitat loss is expected, as the dock will be reconstructed within its original footprint. Construction activities are localized and would likely have temporary impacts on marine mammal habitat through increases in underwater sounds. 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 pile driving activities, elevated levels of underwater noise would ensonify the project area where both fishes and marine mammals may occur and could affect foraging success. Additionally, marine mammals may avoid the area during construction; however, displacement due to noise is expected to be temporary and is not expected to result in long-term effects to the individuals or populations.

Temporary and localized reduction in water quality would occur because of in-water construction activities as well. Most of this effect would occur during the installation and removal of piles when bottom sediments are disturbed. The installation of piles would disturb bottom sediments and may cause a temporary increase in suspended sediment in the project area. In general, turbidity associated with pile installation is localized to about 25-ft (7.6-m) radius around the pile (Everitt *et al.,* 1980). Pinnipeds are not expected to be close enough to the pile driving areas to experience effects of turbidity, and could avoid localized areas of turbidity. Therefore, we expect the impact from increased turbidity levels to be discountable to marine mammals and do not discuss it further.

In-Water Construction Effects on Potential Foraging Habitat

The proposed activities would not result in permanent impacts to habitats used directly by marine mammals outside of the actual footprint of the reconstructed dock. The total riverbed area affected by pile installation and removal is a very small area compared to the vast foraging area available to marine mammals in the Columbia River and Washington's outer coast. Pile extraction and installation may have impacts on benthic invertebrate species primarily associated with disturbance of sediments that may cover or displace some invertebrates. The impacts would be temporary and highly localized, and no habitat would be permanently displaced by construction. Therefore, it is expected that impacts on foraging opportunities for marine mammals due to the demolition and reconstruction of the dock would be minimal.

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

Effects on Potential Prey

Sound may affect marine mammals through impacts on the abundance, behavior, or distribution of prey species (*e.g.,* fish). Marine mammal prey varies by species, season, and location. Here, we describe studies regarding the effects of noise on known marine mammal prey.

Fish utilize the soundscape and components of sound in their environment to perform important functions such as foraging, predator avoidance, mating, and spawning (*e.g.,* Zelick *et al.,* 1999; Fay, 2009). Depending on their hearing anatomy and peripheral sensory structures, which vary among species, fishes hear sounds using pressure and particle motion sensitivity capabilities and detect the motion of surrounding water (Fay *et al.,* 2008). The potential effects of noise on fishes depends on the overlapping frequency range, distance from the sound source, water depth of exposure, and species-specific hearing sensitivity, anatomy, and physiology. Key impacts to fishes may include behavioral responses, hearing damage, barotrauma (pressure-related injuries), and mortality.

Fish react to sounds which are especially strong and/or intermittent low-frequency sounds, and behavioral responses, such as flight or avoidance are the most likely effects. Short duration, sharp sounds can cause overt or subtle changes in fish behavior and local distribution. The reaction of fish to noise depends on the physiological state of the fish, past exposures, motivation (*e.g.,* feeding, spawning, migration), and other environmental factors. 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). Several studies have demonstrated that impulse sounds might affect the distribution and behavior of some fishes, potentially impacting foraging opportunities or increasing energetic costs (*e.g.,* Fewtrell and McCauley, 2012; Pearson *et al.,* 1992; Skalski *et al.,* 1992; Santulli *et al.,* 1999; Paxton *et al.,* 2017). However, some studies have shown no or slight reaction to impulse sounds (*e.g.,* Pena *et al.,* 2013; Wardle *et al.,* 2001; Jorgenson and Gyselman, 2009; Cott *et al.,* 2012).

SPLs of sufficient strength have been known to cause injury to fishes and fish mortality (summarized in Popper *et al.,* 2014). However, in most fish species, hair cells in the ear continuously regenerate and loss of auditory function likely is restored when damaged cells are replaced with new cells. Halvorsen *et al.* (2012b) showed that a TTS of 4 to 6 dB was recoverable within 24 hours for one species. Impacts would be most severe when the individual fish is close to the source and when the duration of exposure is long. Injury caused by barotrauma can range from slight to severe and can cause death, and is most likely for fish with swim bladders. Barotrauma injuries have been documented during controlled exposure to impact pile driving (Halvorsen *et al.,* 2012a; Casper *et al.,* 2013, 2017).

Fish populations in the proposed project area that serve as marine mammal prey could be temporarily affected by noise from pile installation and removal. The frequency range in which fishes generally perceive underwater sounds is 50 to 2,000 Hz, with peak sensitivities below 800 Hz (Popper and Hastings, 2009). Fish behavior or distribution may change, especially with strong and/or intermittent sounds that could harm fishes. High underwater SPLs have been documented to alter behavior, cause hearing loss, and injure or kill individual fish by causing serious internal injury (Hastings and Popper, 2005).

The greatest potential impact to fishes during construction would occur during impact pile driving. However, the duration of impact pile driving would be limited to the final stage of installation (''proofing'') after the pile has been driven as close as practicable to the design depth with a vibratory driver. In-water construction activities would only occur during daylight hours, allowing fish to forage and transit the project area in the evening. Vibratory pile driving could elicit behavioral reactions from fishes such as temporary avoidance of the area but is unlikely to cause injuries to fishes or have persistent effects on local fish populations. Additionally, all pile installation would occur only during a USACE and USFWS-designated in-water work window to minimize potential exposure of ESA-listed fish species migrating through the project site to noise from impact pile driving. Vibratory and deadpull removal of piles could occur at any time during the authorization period. Construction also would have minimal permanent and temporary impacts on benthic invertebrate species, a marine mammal prey source.

The area impacted by the project is relatively small compared to the available habitat in the remainder of the Columbia River, and there are no areas of particular importance that would be impacted by this project. 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. As described in the preceding, the potential for Weyerhaeuser's construction to affect the availability of prey to marine mammals or to meaningfully impact the quality of physical or acoustic habitat is considered to be insignificant.

Estimated Take of Marine Mammals

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

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

Authorized takes would primarily be by Level B harassment, as use of the acoustic source (*i.e.,* pile driving) 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, primarily for phocids because predicted auditory injury zones are larger than for otariids. Auditory injury is unlikely to occur for otariids. The proposed mitigation and monitoring measures are expected to minimize the severity of the taking to the extent practicable.

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

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

Acoustic Thresholds

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

Level B Harassment—Though significantly driven by received level, the onset of behavioral disturbance from anthropogenic noise exposure is also informed to varying degrees by other factors related to the source or exposure context (*e.g.,* frequency, predictability, duty cycle, duration of the exposure, signal-to-noise ratio, distance to the source), the environment (*e.g.,* bathymetry, other noises in the area, predators in the area), and the receiving animals (hearing, motivation, experience, demography, life stage, depth) and can be difficult to predict (*e.g.,* Southall *et al.,* 2007, 2021; Ellison *et al.,* 2012). Based on what the available science indicates and the practical need to use a threshold based on a metric that is both predictable and measurable for most activities, NMFS typically uses a generalized acoustic threshold based on received level to estimate the onset of behavioral harassment. NMFS generally predicts that marine mammals are likely to be behaviorally harassed in a manner considered to be Level B harassment when exposed to underwater anthropogenic noise above root-mean-squared pressure received levels (RMS SPL) of 120 dB (referenced to 1 micropascal (re 1 μPa)) for continuous (*e.g.,* vibratory pile driving, drilling) and above RMS SPL 160 dB re 1 μPa for non-explosive impulsive (*e.g.,* seismic airguns) or intermittent (*e.g.,* scientific sonar) sources. Generally speaking, Level B harassment take estimates based on these behavioral harassment thresholds are expected to include any likely takes by TTS as, in most cases, the likelihood of TTS occurs at distances from the source less than those at which behavioral harassment is likely. TTS of a sufficient degree can manifest as behavioral harassment, as reduced hearing sensitivity and the potential reduced opportunities to detect important signals (conspecific communication, predators, prey) may result in changes in behavior patterns that would not otherwise occur.

Weyerhaeuser's proposed activity includes the use of continuous (vibratory pile driving) and impulsive (impact pile driving) sources, and therefore the RMS SPL thresholds of 120 and 160 dB re 1 μPa are applicable.

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

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

TABLE 4—THRESHOLDS IDENTIFYING THE ONSET OF PTS

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 1μPa²s. In this table, thresholds are abbreviated to reflect ANSI 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 are used in estimating the area ensonified above the acoustic thresholds, including 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. Pile driving generates underwater noise that can potentially result in disturbance to marine mammals in the project area. The maximum (underwater) area ensonified is determined by the topography of the Columbia River, including intersecting land masses that will reduce the overall area of potential impact. Additionally, vessel traffic, including the other half of the dock (berth B) remaining operational during construction, in the project area may contribute to elevated background noise levels, which may mask sounds produced by the project.

Transmission loss (*TL*) is the decrease in acoustic intensity as an acoustic pressure wave propagates out from a source. *TL* parameters vary with frequency, temperature, sea conditions, current, source and receiver depth, water depth, water chemistry, and bottom composition and topography. The general formula for underwater *TL* is:

$$TL = B \times \text{Log}_{10} (R_1/R_2),$$

where

TL = transmission loss in dB;
B = transmission loss coefficient; for practical spreading equals 15;
R_1 = the distance of the modeled SPL from the driven pile; and,
R_2 = the distance from the driven pile of the initial measurement.

This formula neglects loss due to scattering and absorption, which is assumed to be zero here. The degree to which underwater sound propagates away from a sound source is dependent on a variety of factors, most notably the water bathymetry and presence or absence of reflective or absorptive conditions including in-water structures and sediments. Spherical spreading occurs in a perfectly unobstructed (free-field) environment not limited by depth or water surface, resulting in a 6-dB reduction in sound level for each doubling of distance from the source ($20 \times \log_{10}$[range]). Cylindrical spreading occurs in an environment in which sound propagation is bounded by the water surface and sea bottom, resulting in a reduction of 3 dB in sound level for each doubling of distance from the source ($10 \times \log_{10}$[range]). A practical spreading value of 15 is often used under conditions, such as the project site, where water increases with depth as the receiver moves away from the shoreline, resulting in an expected propagation environment that would lie between spherical and cylindrical spreading loss conditions. Practical spreading loss is assumed here.

The intensity of pile driving sounds is greatly influenced by factors such as the type of piles, hammers, and the physical environment in which the activity takes place. In order to calculate the distances to the Level A harassment and the Level B harassment sound thresholds for the methods and piles being used in this project, NMFS used acoustic monitoring data from other locations to develop proxy source levels for the various pile types, sizes and methods (table 5). Generally, we choose source levels from similar pile types from locations (*e.g.,* geology, bathymetry) similar to the project.

TABLE 5—PROXY SOUND SOURCE LEVELS FOR PILE SIZES AND DRIVING METHODS

Pile type and size	Peak SPL (re 1 μPa)	RMS SPL (re 1 μPa)	SEL (re 1 μPa²-s)	Source
Vibratory pile installation and removal				
16-in timber pile		162		Caltrans, 2020.
12-in steel pipe		158		Laughlin, 2012.
12-in steel H-pile		152		Laughlin, 2019.
16-in steel pipe [1]		161		Navy, 2015.
24-in temporary steel pipe.		161		Navy, 2015.
30-in steel pipe		163		Anchor, QEA, 2021; Greenbush, 2019, as cited by NMFS in 87 FR 31985; Denes *et al.,* 2016, table 72.
Impact pile installation				
30-in steel pipe [2]	210	190	177	Caltrans, 2020; Cara Hotchkin, NMFS personal communication, 1/18/2024.

[1] For the purposes of this analysis, the underwater sound source level for removal of existing 16-in steel piles (*i.e.,* 161 dB RMS per Navy, 2015) has been used for the removal of approximately 36 16-in steel pipe piles and 20 fender piles (14- or 16-in steel pipe piles).
[2] Using an unconfined bubble curtain.

For this project, two hammers, including any combination of vibratory and impact hammers, may operate simultaneously. As noted earlier, the estimated ensonfied area reflects the worst-case scenario (both hammers installing 30-in steel pipe piles) for the proposed project. However, the most likely scenario is the removal of a 16-in timber pile at the same time as installing a 30-in steel pipe pile. The calculated proxy source levels for the different potential concurrent pile driving scenarios are shown in table 6.

Two Impact Hammers

For simultaneous impact driving of two 30-in steel pipe piles (the most conservative scenario), the number of strikes per pile was doubled to estimate total sound exposure during simultaneous installation. While the likelihood of impact pile driving strikes completely overlapping in time is rare due to the intermittent nature and short duration of strikes, NMFS conservatively estimates that up to 20 percent of strikes may overlap completely in time. Therefore, to calculate Level B isopleths for simultaneous impact pile driving, dB addition (if the difference between the two sound source levels is between 0 and 1 dB, 3 dB are added to the higher sound source level) was used to calculate the combined sound source level of 193 dB RMS that was used in this analysis.

One Impact Hammer, One Vibratory Hammer

To calculate Level B isopleths for one impact and one vibratory hammer operating simultaneously, sources were treated as though they were non-overlapping and the isopleth associated with the individual source which results in the largest Level B harassment isopleth was conservatively used for both sources to account for periods of overlapping activities.

Two Vibratory Hammers

To calculate Level B isopleths for two simultaneous vibratory hammers, the NMFS acoustic threshold calculator was used with modified inputs to account for accumulation, weighting, and source overlap in space and time. Using the rules of dB addition if the difference between the two sound source levels is between 0 and 1 dB, 3 dB are added to the higher sound source level), the combined sound source level for the simultaneous vibratory installation of two 30-in steel piles is 166 dB RMS.

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

To calculate Level A isopleths for two impact hammers operating simultaneously, the NMFS User Spreadsheet calculator was used with modified inputs to account for the total estimated number of strikes for all piles. For simultaneous impact driving of two 30-in steel pipe piles (the most conservative scenario), the number of strikes per pile was doubled to estimate total sound exposure during simultaneous installation, and the number of piles per day was reduced to one. The source level for two simultaneous impact hammers was not adjusted because for identical sources the accumulation of energy depends only on the total number of strikes, whether or not they overlap fully in time. Therefore, the source level used for two simultaneous impact hammers was 177 dB SEL_{ss}.

To calculate Level A isopleths of one impact hammer and one vibratory hammer operating simultaneously, sources were treated as though they were non-overlapping and the isopleth associated with the individual source which resulted in the largest Level A isopleth was conservatively used for both sources to account for periods of overlapping activities.

To calculate Level A isopleths of two vibratory hammers operating simultaneously, the NMFS acoustic threshold calculator was used with modified inputs to account for accumulation, weighting, and source overlap in space and time. Using the rules of dB addition (NMFS, 2024; if the difference between the two sound source levels is between 0 and 1 dB, 3 dB are added to the higher sound source level), the combined sound source level for the simultaneous vibratory installation of two 30-in steel piles is 166 dB RMS.

TABLE 6—CALCULATED PROXY SOUND SOURCE LEVELS FOR POTENTIAL CONCURRENT PILE DRIVING SCENARIOS

Scenario	Pile type and proxy	Calculated proxy sound source level
Two impact hammers	Impact install of 30-in steel pipe pile (177 dB SEL, 190 dB RMS) AND impact install of 30-in steel pipe pile (177 dB SEL, 190 dB RMS).	177 dB SEL for Level A; 193 dB RMS for Level B.
One impact hammer, one vibratory hammer.	Impact install of 30-in steel pipe pile (177 dB SEL, 190 dB RMS) AND vibratory install of 30-in steel pipe pile (163 dB RMS).	177 dB SEL for Level A; 163 dB RMS for Level B.
Two vibratory hammers	Vibratory install of 30-in steel pipe pile (163 dB RMS) AND vibratory install of 30-in steel pipe pile (163 dB RMS).	166 dB RMS.

TABLE 7—NMFS USER SPREADSHEET INPUTS

Pile size and type	Spreadsheet tab used	Weighting factor adjustment (kHz)	Number of piles per day	Duration to drive a single pile (min)	Number of strikes per pile
Vibratory pile driving and removal					
16-in timber pile	A.1. Vibratory pile driving	2.5	8	60	NA
12-in steel pipe	A.1. Vibratory pile driving	2.5	8	60	NA
12-in steel H-pile	A.1. Vibratory pile driving	2.5	8	60	NA
16-in steel pipe	A.1 Vibratory pile driving	2.5	8	60	NA
24-in temporary steel pipe	A.1 Vibratory pile driving	2.5	8	60	NA
30-in steel pipe	A.1. Vibratory pile driving	2.5	8	60	NA
Impact pile driving					
30-in steel pipe	E.1. Impact pile driving	2	8	NA	1,000
Concurrent pile driving					
Impact install of 30-in steel pipe pile AND impact install of 30-in steel pipe pile.	E.1. Impact pile driving	2	1	NA	8,000
Impact install of 30-in steel pipe pile AND vibratory install of 30-in steel pipe pile.	E.1. Impact pile driving	2	1	NA	8,000
Vibratory install of 30-in steel pipe pile AND vibratory install of 30-in steel pipe pile.	A.1. Vibratory pile driving	2.5	1	480	NA

TABLE 8—CALCULATED LEVELS A AND B HARASSMENT ISOPLETHS

Pile size and type	Level A harassment zone (m/km²)		Level B harassment zone (m/km²)
	Phocid	Otariid	
Vibratory pile driving and removal			
16-in timber pile	20/0.000693	2/0.000012	6,310/8.25
12-in steel pipe	11/0.000226	1/0.000003	3,415/5.14
12-in steel H-pile	5/0.000055	1/0.000003	1,585/2.46
16-in steel pipe	17/0.000509	2/0.000012	5,412/7.47
24-in temporary steel pipe.			
30-in steel pipe	23/0.000906	2/0.000012	7,356 [a,b]/8.96
Impact pile driving			
30-in steel pipe	852/1.16	63 [c]/0.006352	1,001/1.46
Concurrent pile driving			
Impact install of 30-in steel pipe pile AND impact install of 30-in steel pipe pile	852/1.16	63[c]/0.006352	1,585/2.46
Impact install of 30-in steel pipe pile AND vibratory install of 30-in steel pipe pile			7,356 [a,b]/8.96
Vibratory install of 30-in steel pipe pile AND vibratory install of 30-in steel pipe pile	36/2,153	3/0.000023	11,660 [b]/10.52

[a] The Level B harassment thresholds for the vibratory installation of a single 30-in steel pile are equivalent to the potential simultaneous installation of up to two 30-inch steel piles using one impact hammer and one vibratory hammer operating concurrently. As noted previously, Levels A and B harassment thresholds for simultaneous pile driving were analyzed based on interim guidance provided by NMFS (2024) and in coordination with NMFS biologists (Cara Hotchkin, NMFS, personal communication, 1/18/2024 and 2/21/2024).

[b] The Level B harassment thresholds reported above were calculated using the practical spreading loss model, although the extent of actual sound propagation will be limited to the areas identified in figure 6–3 due to the shape and configuration of the Columbia River in the vicinity.

Marine Mammal Occurrence and Take Estimation

In this section, we provide information about the occurrence of marine mammals that will inform the take calculations, and describe how the information provided is synthesized to produce a quantitative estimate of the take that is reasonably likely to occur and proposed for authorization. Daily occurrence data cones from USACE compiled weekly monitoring reports collected at the Bonneville Dam (RM 146) from 2020 through 2021 (van der Leeuw and Tidwell, 2022). As pinnipeds would need to swim past the proposed project site to reach the dam, the number of animals observed at Bonneville Dam may be slightly lower than what would be observed at the project site. The take calculations for this project are:

Incidental take estimate = (number of days during work window × estimated number of animals per day) + (number of days outside work window × estimated number of animals per day).

California Sea Lion

The numbers of California sea lions observed at Bonneville Dam have been in decline in recent years and ranged from 149 in 2016 to a total of 24 in 2021 (van der Leeuw and Tidwell, 2022). During the spring period from January 1 to May 6, 2020, daily counts averaged 0.9 animals ±3.3 standard deviation, with a high of seven individuals (Tidwell *et al.,* 2020). During spring 2021, California sea lions were present from late March through late May, but in relatively low numbers, with most days having five or fewer present (van der Leeuw and Tidwell, 2022). It is difficult to estimate the number of California sea lions that could potentially occur in the Level B harassment zone during the fall in-water work window from these data, because the numbers at Bonneville Dam reflect a strong seasonal presence in spring. A conservative estimate of three California sea lions per day during the in-water work window and five California sea lions per day outside the in-water work window was used. Therefore, using the equation given above, the estimated number of takes by Level B harassment for California sea lions would be 510.

The largest Level A harassment zone for California sea lions extends 63 m from the sound source (table 8) during impact pile driving. All construction work would be shut down prior to a California sea lion entering the Level A harassment zone specific to the in-water activity underway at the time. In consideration of the small Level A harassment isopleth and proposed shutdown requirements, no take by Level A harassment is anticipated or proposed for California sea lions.

Steller Sea Lion

Steller sea lions have been observed in varying numbers at Bonneville Dam throughout much of the year, with a peak in April and May (Tidwell *et al.,* 2020; van der Leeuw and Tidwell, 2022). Reports from a 2-year period observed daily counts of 12 to 20 Steller sea lions during the fall survey period (Tidwell *et al.,* 2020, Tidwell and van der Leeuw, 2021), and up to 27 Steller sea lions per day in the spring (van der Leeuw and Tidwell, 2022). A conservative estimate of 20 Steller sea lions per day during the in-water work window and 27 Steller sea lions per day outside the in-water work window was used. Therefore, using the equation given above, the estimated number of takes by Level B harassment for Steller sea lions would be 3,210.

The largest Level A harassment zone for Steller sea lions extends 63 m from the sound source (table 8) during impact pile driving. All construction work would be shut down prior to a Steller sea lion entering the Level A harassment zone specific to the in-water activity underway at the time. In consideration of the small Level A harassment isopleth and proposed shutdown requirements, no take by Level A harassment is anticipated or proposed for Steller sea lions.

Harbor Seal

Harbor seals are rarely observed at Bonneville Dam and have been recorded in low numbers over the past 10 years. A recent IHA issued for the Port of Kalama Manufacturing and Marine Export Facility (85 FR 76527), which is located near the proposed project site (RM 72), used a conservative estimate based on anecdotal information of harbor seals residing near the mouths of the Cowlitz and Kalama Rivers and estimated that there could be up to 10 present on any given day of pile driving (NMFS, 2017; 81 FR 15064, March 21, 2016). Therefore, using the equation given above, the calculated estimate take by Level B harassment for harbor seals would be 1,500.

The largest Level A harassment zone for harbor seals extends 852 m from the sound source (table 8) during impact pile driving. The Port of Kalama project estimated that one harbor seal per day could be present in the Level A harassment zone for each day of impact pile driving. Using the equation given above, the calculated estimated take by Level A harassment for harbor seals would be 120.

TABLE 9—ESTIMATED TAKE BY LEVELS A AND B HARASSMENT

Common name	Stock	Stock abundance	Level A harassment	Level B harassment	Total proposed take	Proposed take as a percentage of stock
California sea lion	U.S. Stock	257,606	0	510	510	0.2
Steller sea lion	Eastern DPS	36,308	0	3,210	3,210	8.8
Harbor seal	OR/WA coastal stock	24,732	120	1,500	1,620	6.6

Proposed Mitigation

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

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

(1) The manner in which, and the degree to which, the successful

implementation of the measure(s) is expected to reduce impacts to marine mammals, marine mammal species or stocks, and their habitat. This considers the nature of the potential adverse impact being mitigated (likelihood, scope, range). It further considers the likelihood that the measure will be effective if implemented (probability of accomplishing the mitigating result if implemented as planned), the likelihood of effective implementation (probability implemented as planned); and

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

The mitigation measures described in the following paragraphs would apply to the Weyerhaeuser in-water construction activities.

Proposed Shutdown and Monitoring Zones

Weyerhaeuser must establish shutdown zones and Level B harassment monitoring zones for all pile driving activities. The purpose of a shutdown zone is generally to define an area within which shutdown of the activity would occur upon sighting of a marine animal (or in anticipation of an animal entering the defined area). Shutdown zones are based on the largest Level A harassment zone for each pile size/type and driving method, and behavioral monitoring zones are meant to encompass Level B harassment zones for each pile size/type and driving method, as shown in table 10. A minimum shutdown zone of 10 m would be required for all in-water construction activities to avoid physical interaction with marine mammals. Proposed shutdown zones for each activity type are shown in table 10.

Prior to pile driving, Protected Species Observers (PSOs) would survey the shutdown zones and surrounding areas for at least 30 minutes before pile driving activities start. If marine mammals are found within the shutdown zone, pile driving would be delayed until the animal has moved out of the shutdown zone, either verified by an observer or by waiting until 15 minutes has elapsed without a sighting. If a marine mammal approaches or enters the shutdown zone during pile driving, the activity would be halted. Pile driving may resume after the animal has moved out of and is moving away from the shutdown zone or after at least 15 minutes has passed since the last observation of the animal.

All marine mammals would be monitored in the Level B harassment to the extent of visibility for the on-duty PSOs. If a marine mammal for which take is authorized enters the Level B harassment zone, in-water activities would continue and PSOs would document the animal's presence within the estimated harassment zone.

If a species for which authorization has not been granted, or for which the authorized takes are met, is observed approaching or within the Level B harassment zone, pile driving activities would be shut down immediately. Activities would not resume until the animal has been confirmed to have left the area or 15 minutes has elapsed with no sighting of the animal.

TABLE 10—PROPOSED SHUTDOWN AND LEVEL B MONITORING ZONES BY ACTIVITY

Method	Pile size and type	Minimum shutdown zone (m)		Harassment monitoring zone (m)
		Phocid	Otariid	
Vibratory	16-in timber pile removal	20	10	6,310
	12-in steel pipe pile removal	15	10	3,415
	12-in steel H-pile removal	10	10	1,585
	16-in steel pipe removal	20	10	5,412
	24-in steel pipe pile (temporary) installation and removal	20	10	5,412
	30-in steel pipe pile installation	25	10	7,356
Impact	30-in steel pipe pile installation	200	65	1,001
	Two impact hammers	200	65	1,585
Concurrent pile driving	One impact hammer and one vibratory hammer	200	65	7,356
	Two vibratory hammers	40	10	11,660

PSOs

The placement of PSOs during all pile driving and removal activities (described in detail in the Proposed Monitoring and Reporting section) will ensure that the ensonified area of the Columbia River is visible during pile installation.

Pre- and Post-Activity Monitoring

Monitoring must take place from 30 minutes prior to initiation of pile driving activities (*i.e.,* pre-clearance monitoring) through 30 minutes post-completion of pile driving. Prior to the start of daily in-water construction activity, or whenever a break in pile driving of 30 minutes or longer occurs, PSOs would observe the shutdown and monitoring zones for a period of 30 minutes. The shutdown zone would be considered cleared when a marine mammal has not been observed within the zone for a 30-minute period. If a marine mammal is observed within the shutdown zones, pile driving activity would be delayed or halted. If work ceases for more than 30 minutes, the pre-activity monitoring of the shutdown zones would commence. A determination that the shutdown zone is clear must be made during a period of good visibility (*i.e.,* the entire shutdown zone and surrounding waters must be visible to the naked eye).

Bubble Curtain

A bubble curtain must be employed during all impact pile driving activities to interrupt the acoustic pressure and reduce impact on marine mammals. The bubble curtain must distribute air bubbles around 100 percent of the piling circumference for the full depth of the water column. The lowest bubble ring must be in contact with the mudline for the full circumference of the ring. The weights attached to the bottom ring must ensure 100 percent substrate contact. No parts of the ring or other objects may prevent full substrate contact. Air flow to the bubblers must be balanced around the circumference of the pile. If simultaneous use of two impact hammers occurs, both piles must be mitigated with bubble curtains as described above.

Soft Start

Soft-start procedures are believed to provide additional protection to marine mammals by providing warning and/or giving marine mammals a chance to leave the area prior to the impact hammer operating at full capacity. For impact driving, an initial set of three strikes will be made by the hammer at reduced energy, followed by a 30-second waiting period, then two subsequent three-strike sets before initiating continuous driving. Soft start will be implemented at the start of each day's impact pile driving and at any time following cessation of impact pile driving for a period of 30 minutes or longer.

Based on our evaluation of the applicant's proposed measures, NMFS has preliminarily determined that the proposed mitigation measures provide the means of effecting the least practicable impact on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

Proposed Monitoring and Reporting

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

Monitoring and reporting requirements prescribed by NMFS should contribute to improved understanding of one or more of the following:

- Occurrence of marine mammal species or stocks in the area in which take is anticipated (*e.g.,* presence, abundance, distribution, density);
- Nature, scope, or context of likely marine mammal exposure to potential stressors/impacts (individual or cumulative, acute or chronic), through better understanding of: (1) action or environment (*e.g.,* source characterization, propagation, ambient noise); (2) affected species (*e.g.,* life history, dive patterns); (3) co-occurrence of marine mammal species with the activity; or (4) biological or behavioral context of exposure (*e.g.,* age, calving or feeding areas);
- Individual marine mammal responses (behavioral or physiological) to acoustic stressors (acute, chronic, or cumulative), other stressors, or cumulative impacts from multiple stressors;
- How anticipated responses to stressors impact either: (1) long-term fitness and survival of individual marine mammals; or (2) populations, species, or stocks;
- Effects on marine mammal habitat (*e.g.,* marine mammal prey species, acoustic habitat, or other important physical components of marine mammal habitat); and
- Mitigation and monitoring effectiveness.

Visual Monitoring

Marine mammal monitoring must be conducted in accordance with the Marine Mammal Monitoring Plan and section 5 of the IHA. A Marine Mammal Monitoring Plan would be submitted to NMFS for approval prior to commencement of project activities. Marine mammal monitoring during pile driving and removal must be conducted by NMFS-approved PSOs in a manner consistent with the following:

- PSOs must be independent of the activity contractor (for example, employed by a subcontractor) and have no other assigned tasks during monitoring periods;
- At least one PSO must have prior experience performing the duties of a PSO during construction activity pursuant to a NMFS-issued incidental take authorization;
- Other PSOs may substitute education (degree in biological science or related field) or training for experience; and
- Weyerhaeuser must submit PSO Curriculum Vitae for approval by NMFS prior to the onset of pile driving.

PSOs must have the following additional qualifications:

- Ability to conduct field observations and collect data according to assigned protocols;
- Experience or training in the field identification of marine mammals, including the identification of behaviors;
- Sufficient training, orientation, or experience with the construction operation to provide for personal safety during observations;
- Writing skills sufficient to prepare a report of observations including but not limited to the number and species of marine mammals observed; dates and times when in-water construction activities were conducted; dates, times, and reason for implementation of mitigation (or why mitigation was not implemented when required); and marine mammal behavior; and
- Ability to communicate orally, by radio or in person, with project personnel to provide real-time information on marine mammals observed in the area as necessary.

Weyerhaeuser will employ up to four PSOs. PSO locations will provide an unobstructed view of all water within the shutdown zone(s), and as much of the Level A harassment and Level B harassment zones as possible. PSOs would be stationed along the shore of the Columbia River.

Weyerhaeuser would ensure that construction supervisors and crews, the monitoring team, and relevant Weyerhaeuser staff are trained prior to the start of activities subject to the proposed IHA, so that responsibilities, communication procedures, monitoring protocols, and operational procedures are clearly understood. New personnel joining during the project would be trained prior to commencing work. Monitoring would occur for all pile driving activities during the pile installation work window (September 1, 2025 through January 31, 2026). For pile removal activities outside the work window, one PSO would be on site to monitor the ensonified area once every 7 calendar days, whether or not vibratory pile extraction occurs on that day. Monitoring would be conducted 30 minutes before, during, and 30 minutes after pile driving/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/removal activities include the time to install or remove a single pile or series of piles, as long as the time elapsed between uses of the pile driving equipment is no more than 30 minutes.

Data Collection

PSOs would use approved data forms to record the following information:

- Dates and times (beginning and end) of all marine mammal monitoring.
- PSO locations during 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.,* vibratory, impact, or auger drilling).
- Weather parameters and water conditions.
- 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.

• Distance and bearings of each marine mammal observed to the pile being driven or removed.

• Description of marine mammal behavior patterns, including direction of travel.

• Age and sex class, if possible, of all marine mammals observed.

• Detailed information about implementation of any mitigation triggered (such as shutdowns and delays), a description of specific actions that ensued, and resulting behavior of the animal if any.

Reporting

A draft marine mammal monitoring report would be submitted to NMFS within 90 days after the completion of pile driving and removal activities. It would include an overall description of work completed, a narrative regarding marine mammal sightings, and associated PSO 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 the number and type of piles driven or removed and by what method (*i.e.,* vibratory driving) and the total equipment duration for cutting for each pile.

• PSO locations during marine mammal monitoring.

• Environmental conditions during monitoring periods (at beginning and end of PSO shift and whenever conditions change significantly), including Beaufort sea state and any other relevant weather conditions including cloud cover, fog, sun glare, and overall visibility to the horizon, and estimated observable distance.

• Upon observation of a marine mammal, the following information: (1) name of PSO who sighted the animal(s) and PSO location and activity at time of sighting; (2) time of sighting; (3) identification of the animal(s) (*e.g.,* genus/species, lowest possible taxonomic level, or unidentified), PSO confidence in identification, and the composition of the group if there is a mix of species; (4) distance and bearing of each marine mammal observed relative to the pile being driven for each sighting (if pile driving was occurring at time of sighting); (5) estimated number of animals (min/max/best estimate); (6) estimated number of animals by cohort (adults, juveniles, neonates, group composition, *etc.*); (7) animal's closest point of approach and estimated time spent within the harassment zone; and (8) description of any marine mammal behavioral observations (*e.g.,* observed behaviors such as feeding or traveling), including an assessment of behavioral responses thought to have resulted from the activity (*e.g.,* no response or changes in behavioral state such as ceasing feeding, changing direction, flushing, or breaching).

• Number of marine mammals detected within the harassment zones, by species.

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

If no comments are received from NMFS within 30 days, the draft final report would 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, Weyerhaeuser shall report the incident to the OPR, NMFS and to the west coast regional stranding network as soon as feasible. If the death or injury was clearly caused by the specified activity, Weyerhaeuser must immediately cease the specified activities until NMFS is able to review the circumstances of the incident and determine what, if any, additional measures are appropriate to ensure compliance with the terms of the IHA. The IHA-holder must not resume their activities until notified by NMFS. The report 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 impacts or responses (*e.g.,* intensity, duration), the context of any impacts or responses (*e.g.,* critical reproductive time or location, foraging impacts affecting energetics), as well as effects on habitat, and the likely effectiveness of the mitigation. We also assess the number, intensity, and context of estimated takes by evaluating this information relative to population status. Consistent with the 1989 preamble for NMFS' implementing regulations (54 FR 40338, September 29, 1989), the impacts from other past and ongoing anthropogenic activities are incorporated into this analysis via their impacts on the baseline (*e.g.,* as reflected in the regulatory status of the species, population size and growth rate where known, ongoing sources of human-caused mortality, or ambient noise levels).

To avoid repetition, the discussion of our analysis applies to California sea lions, Steller sea lions, and harbor seals, given that the anticipated effects of this activity on these different marine mammal stocks are expected to be similar. There is little information about the nature or severity of the impacts, or the size, status, or structure of any of these species or stocks that would lead to a different analysis for this activity.

Pile driving 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. Potential takes could occur if individuals are present in the ensonified zone when these activities are underway.

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

Take would occur within a limited, confined area (the Columbia River) of the stocks' ranges. Level A harassment and Level B harassment would be reduced to the level of least practicable adverse impact through use of mitigation measures described herein. Further, the amount of take proposed to be authorized is extremely small when compared to stock abundance, and the project is not anticipated to impact any known important habitat areas for any marine mammal species.

Take by Level A harassment is authorized to account for the potential that an animal could enter and remain within the area between a Level A harassment zone and the shutdown zone for a duration long enough to be taken by Level A harassment. Any take by Level A harassment is expected to arise from, at most, a small degree of PTS because animals would need to be exposed to higher levels and/or longer duration than are expected to occur here in order to incur any more than a small degree of PTS. Additionally, and as noted previously, some subset of the individuals that are behaviorally harassed could also simultaneously incur some small degree of TTS for a short duration of time. Because of the small degree anticipated, though, any PTS or TTS potentially incurred here would not be expected to adversely impact individual fitness, let alone annual rates of recruitment or survival.

Behavioral responses of marine mammals to pile driving at the project site, if any, are expected to be mild and temporary. Marine mammals within the Level B harassment zone may not show any visual cues they are disturbed by activities or could become alert, avoid the area, leave the area, or display other mild responses that are not observable such as changes in vocalization patterns. Given the limited number of piles to be installed or extracted per day and that pile driving and removal would occur across a maximum of 150 days within the 12-month authorization period, any harassment would be temporary.

Any impacts on marine mammal prey that would occur during Weyerhaeuser's proposed activity would have, at most, short-term effects on foraging of individual marine mammals, and likely no effect on the populations of marine mammals as a whole. Indirect effects on marine mammal prey during the construction are expected to be minor, and these effects are unlikely to cause substantial effects on marine mammals at the individual level, with no expected effect on annual rates of recruitment or survival.

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

- No serious injury or mortality is anticipated or authorized;
- The intensity of anticipated takes by Level B harassment is relatively low for all stocks and would not be of a duration or intensity expected to result in impacts on reproduction or survival;
- No important habitat areas have been identified within the project area;
- For all species, the Columbia River is a very small and peripheral part of their range and anticipated habitat impacts are minor; and
- Weyerhaeuser would implement mitigation measures, such as soft-starts for impact pile driving and shut downs to minimize the numbers of marine mammals exposed to injurious levels of sound, and to ensure that take by Level A harassment, is at most, a small degree of PTS.

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

Small Numbers

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

Table 9 demonstrates the number of animals that could be exposed to received noise levels that could cause Level B harassment for the proposed work. Our analysis shows that less than 10 percent of each affected stock could be taken by harassment. The numbers of animals proposed to be taken for these stocks would be considered small relative to the relevant stock's abundances, even if each estimated taking occurred to a new individual—an extremely unlikely scenario.

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

Unmitigable Adverse Impact Analysis and Determination

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

Endangered Species Act

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

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

Proposed Authorization

As a result of these preliminary determinations, NMFS proposes to issue an IHA to Weyerhaeuser for conducting Log Export Dock Project, on the Columbia River near Longview, Washington, from September 1, 2025, through August 31, 2026, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated. A draft of the proposed IHA can be found at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-construction-activities.*

Request for Public Comments

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

On a case-by-case basis, NMFS may issue a one-time, 1-year renewal IHA following notice to the public providing an additional 15 days for public comments when (1) up to another year of identical or nearly identical activities as described in the Description of Proposed Activity section is planned, or (2) the activities as described in the Description of Proposed Activity section 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, provided all of the following conditions are met:

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

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

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

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

Dated: June 3, 2024.

Catherine Marzin,

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

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XE019]

Schedules for Atlantic Shark Identification Workshops and Protected Species Safe Handling, Release, and Identification Workshops

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

ACTION: Notice of public workshops.

SUMMARY: Free Atlantic Shark Identification Workshops and Safe Handling, Release, and Identification Workshops will be held in July, August, and September of 2024. Certain fishermen and shark dealers are required to attend a workshop to meet regulatory requirements and to maintain valid permits. Specifically, the Atlantic Shark Identification Workshop is mandatory for all federally permitted Atlantic shark dealers. The Safe Handling, Release, and Identification Workshop is mandatory for vessel owners and operators who use bottom longline, pelagic longline, or gillnet gear, and who have also been issued shark or swordfish limited access permits. Additional free workshops will be conducted in 2024 and will be announced in a future notice. In addition, NMFS has implemented online recertification workshops for persons who have already taken an in-person training.

DATES: The Atlantic Shark Identification Workshops will be held on August 22, 2024, and September 12, 2024. The Safe Handling, Release, and Identification Workshops will be held on July 10, 2024, August 2, 2024, and September 9, 2024.

ADDRESSES: The Atlantic Shark Identification Workshops will be held in Wilmington, NC, and Virginia Beach, VA. The Safe Handling, Release, and Identification Workshops will be held in Ocean City, MD, Port St. Lucie, FL, and Kenner, LA.

FOR FURTHER INFORMATION CONTACT: Elsa Gutierrez by email at *elsa.gutierrez@noaa.gov* or by phone at 301–427–8503.

SUPPLEMENTARY INFORMATION: Atlantic highly migratory species (HMS) fisheries are managed under the 2006 Consolidated HMS Fishery Management Plan (FMP) and its amendments pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 *et seq.*) and consistent with the Atlantic Tunas Convention Act (16 U.S.C. 971 *et seq.*). HMS implementing regulations are at 50 CFR part 635. Section 635.8 describes the requirements for the Atlantic Shark Identification Workshops and Safe Handling, Release, and Identification Workshops. The workshop schedules, registration information, and a list of frequently asked questions regarding the Atlantic Shark Identification and Safe Handling, Release, and Identification workshops are available online at: *https://www.fisheries.noaa.gov/atlantic-highly-migratory-species/atlantic-shark-identification-workshops* and *https://www.fisheries.noaa.gov/atlantic-highly-migratory-species/safe-handling-release-and-identification-workshops.*

Atlantic Shark Identification Workshops

Since January 1, 2008, Atlantic shark dealers have been prohibited from receiving, purchasing, trading, or bartering for Atlantic sharks unless a valid Atlantic Shark Identification Workshop certificate is on the premises of each business listed under the shark dealer permit that first receives Atlantic sharks (71 FR 58057, October 2, 2006). Dealers who attend and successfully complete a workshop are issued a certificate for each place of business that is permitted to receive sharks. These certificate(s) are valid for 3 years. Thus, certificates that were initially issued in 2021 will expire in 2024.

Currently, permitted dealers may send a proxy to an Atlantic Shark Identification Workshop. However, if a dealer opts to send a proxy, the dealer must designate a proxy for each place of business covered by the dealer's permit that first receives Atlantic sharks. Only one certificate will be issued to each proxy. A proxy must be a person who is currently employed by a place of