information provided in the **ADDRESSES** section. NIST will then provide each interested party with a letter of interest template, which the party must complete and submit to NIST. Each party's letter of interest must include the following information:

1. Whether the LTS to be tested is commercially available now or at an advanced productization stages so that it would be commercially available by the end of 2018.
2. Market the indoor LTS is targeting.
3. Given that large buildings will be used for testing, whether the number of units available to install in these buildings is sufficient for the system to go through a suite of tests, one building at a time. (As a point of information, the largest building to be used for testing covers 100,000 square feet of space.)
4. The willingness and ability to send an adequate number of staff members to install and uninstall the indoor LTS in test buildings and operate the equipment to administer the tests under NIST supervision for a period of about 3 days. If for any reason a LTS runs into technical problems and cannot complete the tests in each building in the allotted time slot, NIST has designated the last two days of the week as ''make-up days'', where tests that were not completed in their allotted time slots can be redone. NIST will not be responsible for shipping equipment to NIST and back to your company.
5. Willingness to provide all data form T&E activities to the NIST Consortium Manager for purposes of this project.
6. A statement regarding whether the LTS requires deployment of equipment inside/outside a building in order to be tested; please specify the types of equipment that need to be deployed and how many per every 10,000 square feet of space.
7. If the LTS uses RF technology, please specify the frequency band(s) and power levels the LTS uses.
8. Whether the installation, uninstallation, or operation of the LTS is likely to cause damage of any type to the buildings or furnishing during testing.

Letters of interest may be submitted to the LTS Testing Consortium Manager electronically using the email address provided in the **ADDRESSES** section. Letters of interest must include the name of the organization and the name and contact information for an official representing the organization. Letters of interest must not include any confidential information. NIST will not treat any information provided in the letters of interest as confidential or proprietary. NIST will review the letters of interest from each organization received prior to the closing date provided in the **DATES** section. Eligibility will be determined based on the information provided by the organization in response to the above request for specific information. NIST will notify an applicant in writing of its eligibility to participate in the LTS Testing Consortium. To participate, the eligible applicant will be required to sign a Cooperative Research and Development Agreement (CRADA) with NIST. Each participant's CRADA will have identical terms and conditions that are consistent with the requirements of Title 15, United States Code, Chapter 63, Section 3710a (Cooperative Research and Development Agreements). NIST does not guarantee participation or any other collaboration to any organization submitting a Letter of Interest.

Authority: 15 U.S.C. 3710a.

Kevin Kimball,

Chief of Staff.

[FR Doc. 2017–23807 Filed 10–31–17; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XF574

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to U.S. 101/ Chehalis River Bridge—Scour Repair in Washington State

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

ACTION: Notice; issuance of an incidental harassment authorization.

SUMMARY: In accordance with the regulations implementing the Marine Mammal Protection Act (MMPA) as amended, notification is hereby given that we have issued an incidental harassment authorization (IHA) to Washington State Department of Transportation (WSDOT) to take small numbers of marine mammals, by harassment, incidental to U.S. 101/ Chehalis River Bridge—Scour Repair in Washington State.

DATES: This authorization is valid from July 1, 2018, through June 30, 2019.

FOR FURTHER INFORMATION CONTACT: Shane Guan, Office of Protected Resources, NMFS, (301) 427–8401. Electronic copies of the application and supporting documents, as well as the issued IHA, may be obtained online at: *www.nmfs.noaa.gov/pr/permits/incidental/construction.htm.* In case of problems accessing these documents, please call the contact listed above.

SUPPLEMENTARY INFORMATION:

Background

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

An authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant), and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth.

NMFS has defined ''negligible impact'' in 50 CFR 216.103 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.

The MMPA states that the term ''take'' means to harass, hunt, capture, kill or attempt to harass, hunt, capture, or kill any marine mammal.

Except with respect to certain activities not pertinent here, 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).

National Environmental Policy Act

Issuance of an MMPA 101(a)(5)(D) authorization requires compliance with the National Environmental Policy Act.

NMFS determined the issuance of the proposed IHA is consistent with categories of activities identified in CE B4 (issuance of incidental harassment authorizations under section 101(a)(5)(A) and (D) of the MMPA for which no serious injury or mortality is

anticipated) of the Companion Manual for NAO 216–6A and we have not identified any extraordinary circumstances listed in Chapter 4 of the Companion Manual for NAO 216–6A that would preclude this categorical exclusion.

Summary of Request

NMFS received a request from WSDOT for an IHA to take marine mammals incidental to U.S. 101/Chehalis River Bridge—Scour Repair in the State of Washington. WSDOT's request was for harassment only and NMFS concurs that serious injury or mortality is not expected to result from this activity. Therefore, an IHA is appropriate.

In November 2016, WSDOT submitted a request to NMFS requesting an IHA for the possible harassment of small numbers of marine mammal species incidental to U.S. 101/Chehalis River Bridge-Scour Repair in Washington State, between July 16 to September 30, 2018. WSDOT subsequently updated its project scope and submitted a revised IHA application on July 5, 2017. NMFS determined the IHA application was complete on July 14, 2017. NMFS issued an IHA to WSDOT to take by Level B harassment of the following marine mammal species: Harbor seal (*Phoca vitulina*); California sea lion (*Zalophus californianus*); Steller sea lion (*Eumetopias jubatus*); gray whale (*Eschrichtius robustus*); and harbor porpoise (*Phocoena phocoena*).

Description of Proposed Activity

Overview

WSDOT is proposing to repair an area of scour associated with Pier 14 of the U.S. 101 Chehalis River Bridge (Figures 1–3 and 1–4 in the IHA application). The bridge foundation at Pier 14 is ''scour critical'' due to the bridge foundation being unstable for calculated scour depths. The southwest quadrant of Pier 14 is undermined by scour void as much as 8 feet deep, and some of the untreated timber pilings have been directly exposed to river/estuary water since 2008. Marine borers may weaken enough pilings to require more extensive pier repair if this project is not built in the near future. In addition, the footing and seal are exposed at the other three quadrants of Pier 14.

The purpose of the U.S. 101/Chehalis River Bridge Project is to make the bridge foundation stable for calculated scour depths, protect the foundation from further scour by removing debris, filling the scour void under Pier 14 with cementitious material (to protect the pilings from marine borers), and filling the scour hole and protecting the pier with scour resistant material.

Dates and Duration

Due to NMFS and the U.S. Fish and Wildlife Service (USFWS) in-water work timing restrictions to protect ESA-listed salmonids, planned WSDOT in-water construction is limited each year to July 16 through February 15. For this project, in-water construction is planned to take place between July 16 to September 30, 2018. The total worst-case time for pile installation and removal is 50 hours over 12 days (Table 1).

Specified Geographic Region

The U.S. 101 Chehalis River Bridge is located in the City of Aberdeen, Grays Harbor County, Washington (Figure 1–1 in the IHA application). The bridge is located in Township 17 North, Range 9 West, Section 9, where the Chehalis River enters Grays Harbor. Land use in the Aberdeen area is a mix of residential, commercial, industrial, and open space and/or undeveloped lands (Figure 1–2 in the IHA application).

Detailed Description of In-Water Pile Driving Associated With the U.S. 101 Chehalis River Bridge Repair Project

The proposed project involves noise production that may affect marine mammals: Vibratory hammer driving and removal. Details of the pile driving and pile removal activities are provided in the **Federal Register** notice (82 FR 37426; August 10, 2017) for the proposed IHA and is summarized in Table 1 below.

TABLE 1—SUMMARY OF IN-WATER PILE DRIVING AND REMOVAL DURATIONS

Method	Pile type	Pile size (inch)	Pile No.	Duration (min) per pile	Duration (days)
Vibratory driving	Steel H pile	12	6	30	1
Vibratory driving	Sheet pile	.....	44	30	5
Vibratory removal	Steel H pile	12	6	30	1
Vibratory removal	Sheet pile	.....	44	30	5
Total	.....	.....	.....	.....	12

Comments and Responses

A notice of NMFS' proposal to issue an IHA was published in the **Federal Register** on August 10, 2017 (82 FR 37426). During the 30-day public comment period, NMFS received a comment letter from the Marine Mammal Commission (Commission). No other comments were received. Specific comments and responses are provided below.

Comment 1: The Commission recommends that NMFS (1) determine whether action proponents would be required to implement delay or shut-down procedures for vibratory pile driving and removal and (2) include standard mitigation, monitoring, and reporting measures consistently for all authorizations involving those actions.

Response: As stated in the **Federal Register** notice for the proposed IHA (82 FR 37426, August 10, 2017), WSDOT is required to implement delay and shutdown measures if a marine mammal is detected to approach the exclusion zone. The language is further clarified that after a shutdown measure, the construction cannot be resumed until the animal is seen leaving the exclusion zone, or 30 minutes have passed since the last sight of the animal within the zone. These measures are consistent with all authorizations involving in-water pile driving.

Comment 2: The Commission states that the method NMFS used to estimate the numbers of takes during the proposed activities, which summed fractions of takes for each species across project days, does not account for and negates the intent of NMFS's 24-hour reset policy. The Commission states that it noted NMFS developed criteria associated with rounding and recommend that NMFS share these with the Commission.

Response: While for certain projects NMFS has rounded to the whole number for daily takes, for projects like

this one, when the objective of take estimation is to provide more accurate assessments of potential impacts to marine mammals for the entire project, rounding in the middle of a calculation would introduce large errors into the process. In addition, while NMFS uses a 24-hour reset for its take calculation to ensure that individual animals are not counted as a take more than once per day, that fact does not make the calculation and subsequent rounding of take across the entire activity period inherently incorrect. There is no need for daily (24-hour) rounding in this case because there is no daily limit of takes, as long as total authorized takes of marine mammal are not exceeded. NMFS is working on general guidance for take calculation and will share it with the Commission in the near future.

Description of Marine Mammals in the Area of Specified Activities

We have reviewed the applicants' species information—which summarizes available information regarding status and trends, distribution and habitat preferences, behavior and life history, and auditory capabilities of the potentially affected species—for accuracy and completeness and refer the reader to Sections 3 and 4 of the applications, as well as to NMFS's Stock Assessment Reports (SAR; *www.nmfs.noaa.gov/pr/sars/*), instead of reprinting all of the information here. Additional general information about these species (*e.g.,* physical and behavioral descriptions) may be found on NMFS's Web site (*www.nmfs.noaa.gov/pr/species/mammals/*), or in the U.S. Navy's Marine Resource Assessments (MRA) for relevant operating areas. The MRAs are available online at: *www.navfac.navy.mil/products_and_services/ev/products_and_services/marine_resources/marine_resource_assessments.html*. Table 2 lists all species with expected potential for occurrence in Chehalis Bridge project area and summarizes information related to the population or stock, including potential biological removal (PBR), where known. For taxonomy, we follow Committee on Taxonomy (2016). PBR, 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, is considered in concert with known sources of ongoing anthropogenic mortality to assess the population-level effects of the anticipated mortality from a specific project (as described in NMFS's SARs). While no mortality is anticipated or authorized here, PBR and annual serious injury and mortality are included here as gross indicators of the status of the species and other threats.

Marine mammal abundance estimates presented in this document represent the total number of individuals that make up a given stock or the total number estimated within a particular study area. NMFS's stock abundance estimates for most species represent the total estimate of individuals within the geographic area, if known, that comprises that stock.

Five species (with five managed stocks) are considered to have the potential to co-occur with the proposed construction activities. All values presented in Table 2 are the most recent available at the time of publication and are available in the 2015 SARs (Carretta *et al.,* 2016) and draft 2016 SARs (available online at: *www.nmfs.noaa.gov/pr/sars/draft.htm*).

TABLE 2—MARINE MAMMALS WITH POTENTIAL PRESENCE WITHIN THE PROPOSED PROJECT AREA

Common name	Scientific name	Stock	ESA/MMPA status; strategic (Y/N) [1]	Stock abundance (CV, N_{min}, most recent abundance survey) [2]	PBR	Annual M/SI [3]
Order Cetartiodactyla—Cetacea—Superfamily Mysticeti (baleen whales)						
Family Eschrichtiidae						
Gray whale	*Eschrichtius robustus*	Eastern North Pacific	N	20,990	624	132
Family Phocoenidae (porpoises)						
Harbor porpoise	*Phocoena phocoena*	Washington inland waters	N	11,233	66	7.2
Order Carnivora—Superfamily Pinnipedia						
Family Otariidae (eared seals and sea lions)						
California sea lion	*Zalophus californianus*	U.S	N	296,750	9,200	389
Steller sea lion	*Eumetopias jubatus*	Eastern U.S.	N	71,562	2,498	108
Family Phocidae (earless seals)						
Harbor seal	*Phoca vitulina*	Washington northern inland waters.	N	[4] 11,036	1,641	43

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

[2] NMFS marine mammal stock assessment reports online at: *www.nmfs.noaa.gov/pr/sars/*. CV is coefficient of variation; N_{min} is the minimum estimate of stock abundance.

[3] These values, found in NMFS's SARs, represent annual levels of human-caused mortality plus serious injury from all sources combined (*e.g.,* commercial fisheries, ship strike). Annual M/SI often cannot be determined precisely and is in some cases presented as a minimum value or range. A CV associated with estimated mortality due to commercial fisheries is presented in some cases.

[4] Harbor seal estimate is based on data that are 8 years old, but this is the best available information for use here.

Potential Effects of Specified Activities on Marine Mammals and Their Habitat

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

Potential impacts to marine mammals from the proposed US 101/Chehalis Bridge repair project are from noise generated during in-water pile driving and pile removal activities.

Acoustic Effects

Here, we first provide background information on marine mammal hearing before discussing the potential effects of the use of active acoustic sources on marine mammals.

Marine Mammal Hearing—Hearing is the most important sensory modality for marine mammals underwater, and exposure to anthropogenic sound can have deleterious effects. To appropriately assess the potential effects of exposure to sound, it is necessary to understand the frequency ranges marine mammals are able to hear. Current data indicate that not all marine mammal species have equal hearing capabilities (*e.g.,* Richardson *et al.,* 1995; Wartzok and Ketten, 1999; Au and Hastings, 2008). To reflect this, Southall *et al.* (2007) recommended that marine mammals be divided into functional hearing groups based on directly measured or estimated hearing ranges on the basis of available behavioral response data, audiograms derived using auditory evoked potential techniques, anatomical modeling, and other data. Note that no direct measurements of hearing ability have been successfully completed for mysticetes (*i.e.,* low-frequency cetaceans). Subsequently, NMFS (2016) 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. The functional groups and the associated frequencies are indicated below (note that these frequency ranges correspond to the range for the composite group, with the entire range not necessarily reflecting the capabilities of every species within that group):

- *Low-frequency cetaceans (mysticetes):* Generalized hearing is estimated to occur between approximately 7 Hertz (Hz) and 35 kilohertz (kHz), with best hearing estimated to be from 100 Hz to 8 kHz;
- *Mid-frequency cetaceans (larger toothed whales, beaked whales, and most delphinids):* Generalized hearing is estimated to occur between approximately 150 Hz and 160 kHz, with best hearing from 10 to less than 100 kHz;
- *High-frequency cetaceans (porpoises, river dolphins, and members of the genera Kogia and Cephalorhynchus; including two members of the genus Lagenorhynchus, on the basis of recent echolocation data and genetic data):* Generalized hearing is estimated to occur between approximately 275 Hz and 160 kHz.
- *Pinnipeds in water; Phocidae (true seals):* Generalized hearing is estimated to occur between approximately 50 Hz to 86 kHz, with best hearing between 1–50 kHz;
- *Pinnipeds in water; Otariidae (eared seals):* Generalized hearing is estimated to occur between 60 Hz and 39 kHz, with best hearing between 2–48 kHz.

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

For more detail concerning these groups and associated frequency ranges, please see NMFS (2016) for a review of available information. Five marine mammal species (2 cetacean and 3 pinniped (2 otariid and 1 phocid) species) have the reasonable potential to co-occur with the proposed construction activities. Please refer to Table 2. Of the cetacean species that may be present, one species is classified as low-frequency cetaceans (*i.e.,* gray whale), and one is classified as high-frequency cetaceans (*i.e.,* harbor porpoise).

The WSDOT's US 101 Chehalis River Bridge Project using in-water pile driving and pile removal could adversely affect marine mammal species and stocks by exposing them to elevated noise levels in the vicinity of the activity area.

Exposure to high intensity sound for a sufficient duration may result in auditory effects such as a noise-induced threshold shift (TS)—an increase in the auditory threshold after exposure to noise (Finneran *et al.,* 2005). Factors that influence the amount of threshold shift include the amplitude, duration, frequency content, temporal pattern, and energy distribution of noise exposure. The magnitude of hearing threshold shift normally decreases over time following cessation of the noise exposure. The amount of TS just after exposure is the initial TS. If the TS eventually returns to zero (*i.e.,* the threshold returns to the pre-exposure value), it is a temporary threshold shift (TTS) (Southall *et al.,* 2007).

Threshold Shift (noise-induced loss of hearing)—When animals exhibit reduced hearing sensitivity (*i.e.,* sounds must be louder for an animal to detect them) following exposure to an intense sound or sound for long duration, it is referred to as a noise-induced TS. An animal can experience TTS) or permanent threshold shift (PTS). TTS can last from minutes or hours to days (*i.e.,* there is complete recovery), can occur in specific frequency ranges (*i.e.,* an animal might only have a temporary loss of hearing sensitivity between the frequencies of 1 and 10 kHz), and can be of varying amounts (for example, an animal's hearing sensitivity might be reduced initially by only 6 dB or reduced by 30 dB). PTS is permanent, but some recovery is possible. PTS can also occur in a specific frequency range and amount as mentioned above for TTS.

For marine mammals, published data are limited to the captive bottlenose dolphin, beluga, harbor porpoise, and Yangtze finless porpoise (Finneran *et al.,* 2000, 2002, 2003, 2005, 2007, 2010a, 2010b; Finneran and Schlundt, 2010; Lucke *et al.,* 2009; Mooney *et al.,* 2009a, 2009b; Popov *et al.,* 2011a, 2011b; Kastelein *et al.,* 2012a; Schlundt *et al.,* 2000; Nachtigall *et al.,* 2003, 2004). For pinnipeds in water, data are limited to measurements of TTS in harbor seals, an elephant seal, and California sea lions (Kastak *et al.,* 1999, 2005; Kastelein *et al.,* 2012b).

Lucke *et al.* (2009) found a TS of a harbor porpoise after exposing it to airgun noise with a received sound pressure level (SPL) at 200.2 dB (peak–to-peak) re: 1 micropascal (μPa), which corresponds to a sound exposure level of 164.5 dB re: 1 μPa^2 s after integrating

exposure. Because the airgun noise is a broadband impulse, one cannot directly determine the equivalent of root mean square (rms) SPL from the reported peak-to-peak SPLs. However, applying a conservative conversion factor of 16 dB for broadband signals from seismic surveys (McCauley, *et al.,* 2000) to correct for the difference between peak-to-peak levels reported in Lucke *et al.* (2009) and rms SPLs, the rms SPL for TTS would be approximately 184 dB re: 1 µPa, and the received levels associated with PTS (Level A harassment) would be higher. Therefore, based on these studies, NMFS recognizes that TTS of harbor porpoises is lower than other cetacean species empirically tested (Finneran & Schlundt, 2010; Finneran *et al.,* 2002; Kastelein and Jennings, 2012).

Marine mammal hearing plays a critical role in communication with conspecifics, and interpretation of environmental cues for purposes such as predator avoidance and prey capture. 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 occurs during a time where ambient noise is lower and there are not as many competing sounds present. Alternatively, a larger amount and longer duration of TTS sustained during time when communication is critical for successful mother/calf interactions could have more serious impacts. Also, depending on the degree and frequency range, the effects of PTS on an animal could range in severity, although it is considered generally more serious because it is a permanent condition. Of note, 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 one can infer that strategies exist for coping with this condition to some degree, though likely not without cost.

In addition, chronic exposure to excessive, though not high-intensity, noise could cause masking at particular frequencies for marine mammals, which utilize sound for vital biological functions (Clark *et al.,* 2009). Acoustic masking is when other noises such as from human sources interfere with animal detection of acoustic signals such as communication calls, echolocation sounds, and environmental sounds important to marine mammals. Therefore, under certain circumstances, marine mammals whose acoustical sensors or environment are being severely masked could also be impaired from maximizing their performance fitness in survival and reproduction.

Masking occurs at the frequency band that the animals utilize. Therefore, since noise generated from vibratory pile driving is mostly concentrated at low frequency ranges, it may have less effect on high frequency echolocation sounds by odontocetes (toothed whales). However, lower frequency man-made noises are more likely to affect detection of communication calls and other potentially important natural sounds such as surf and prey noise. It may also affect communication signals when they occur near the noise band and thus reduce the communication space of animals (*e.g.,* Clark *et al.,* 2009) and cause increased stress levels (*e.g.,* Foote *et al.,* 2004; Holt *et al.,* 2009).

Unlike TS, masking, which can occur over large temporal and spatial scales, can potentially affect the species at population, community, or even ecosystem levels, as well as individual levels. Masking affects both senders and receivers of the signals and could have long-term chronic effects on marine mammal species and populations. Recent science suggests that low frequency ambient sound levels have increased by as much as 20 dB (more than three times in terms of sound pressure level) in the world's ocean from pre-industrial periods, and most of these increases are from distant shipping (Hildebrand, 2009). For WSDOT's Chehalis Bridge repair activities, noises from vibratory pile driving and pile removal contribute to the elevated ambient noise levels in the project area, thus increasing potential for or severity of masking. Baseline ambient noise levels in the vicinity of project area are high due to ongoing shipping, construction and other activities in the Puget Sound.

Finally, marine mammals' exposure to certain sounds could lead to behavioral disturbance (Richardson *et al.,* 1995), such as: Changing durations of surfacing and dives, number of blows per surfacing, or moving direction and/or speed; reduced/increased vocal activities; changing/cessation of certain behavioral activities (such as socializing or feeding); visible startle response or aggressive behavior (such as tail/fluke slapping or jaw clapping); avoidance of areas where noise sources are located; and/or flight responses (*e.g.,* pinnipeds flushing into water from haulouts or rookeries).

The onset of behavioral disturbance from anthropogenic noise depends on both external factors (characteristics of noise sources and their paths) and the receiving animals (hearing, motivation, experience, demography) and is also difficult to predict (Southall *et al.,* 2007). Currently NMFS uses a received level of 160 dB re 1 µPa (rms) to predict the onset of behavioral harassment from impulse noises (such as impact pile driving), and 120 dB re 1 µPa (rms) for continuous noises (such as vibratory pile driving). For the WSDOT's US 101 Chehalis River Bridge Project, only the 120-dB level is considered for effects analysis because WSDOT plans to use vibratory pile driving and pile removal.

The biological significance of many of these behavioral disturbances is difficult to predict, especially if the detected disturbances appear minor. However, the consequences of behavioral modification could be biologically significant if the change affects growth, survival, and/or reproduction, which depends on the severity, duration, and context of the effects.

Potential Effects on Marine Mammal Habitat

The primary potential impacts to marine mammal habitat are associated with elevated sound levels produced by vibratory pile removal and pile driving in the area. However, other potential impacts to the surrounding habitat from physical disturbance are also possible.

With regard to fish as a prey source for cetaceans and pinnipeds, fish are known to hear and react to sounds and to use sound to communicate (Tavolga *et al.,* 1981) and possibly avoid predators (Wilson and Dill, 2002). Experiments have shown that fish can sense both the strength and direction of sound (Hawkins, 1981). Primary factors determining whether a fish can sense a sound signal, and potentially react to it, are the frequency of the signal and the strength of the signal in relation to the natural background noise level.

The level of sound at which a fish will react or alter its behavior is usually well above the detection level. Fish have been found to react to sounds when the sound level increased to about 20 dB above the detection level of 120 dB (Ona, 1988); however, the response threshold can depend on the time of year and the fish's physiological condition (Engas *et al.,* 1993). In general, fish react more strongly to pulses of sound (such as noise from impact pile driving) rather than continuous signals (such as noise from vibratory pile driving) (Blaxter *et al.,* 1981), and a quicker alarm response is elicited when the sound signal intensity

rises rapidly compared to sound rising more slowly to the same level.

During the coastal construction only a small fraction of the available habitat would be ensonified at any given time. Disturbance to fish species would be short-term and fish would return to their pre-disturbance behavior once the pile driving activity ceases. Thus, the proposed construction would have little, if any, impact on marine mammals' prey availability in the area where construction work is planned.

Finally, the time of the proposed construction activity would avoid the spawning season of the ESA-listed salmonid species.

Estimated Take

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

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

Authorized takes would be by Level B harassment only, in the form of disruption of behavioral patterns for individual marine mammals resulting from exposure to noise generated from vibratory pile driving and removal. Based on the nature of the activity and the anticipated effectiveness of the mitigation measures (*i.e.,* shutdown measures—discussed in detail below in Mitigation section), Level A harassment is neither anticipated nor authorized.

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

Described in the most basic way, we estimate take by considering: (1) Acoustic thresholds above which NMFS believes the best available science indicates marine mammals will be behaviorally harassed or incur some degree of permanent hearing impairment; (2) the area or volume of water that will be ensonified above these levels in a day; (3) the density or occurrence of marine mammals within these ensonified areas; and, (4) and the number of days of activities. Below, we describe these components in more detail and present the take estimate.

Acoustic Thresholds

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

Level B Harassment for non-explosive sources—Though significantly driven by received level, the onset of behavioral disturbance from anthropogenic noise exposure is also informed to varying degrees by other factors related to the source (*e.g.,* frequency, predictability, duty cycle), the environment (*e.g.,* bathymetry), and the receiving animals (hearing, motivation, experience, demography, behavioral context) and can be difficult to predict (Southall *et al.,* 2007, Ellison *et al.,* 2011). Based on what the available science indicates and the practical need to use a threshold based on a factor that is both predictable and measurable for most activities, NMFS uses a generalized acoustic threshold based on received level to estimate the onset of behavioral harassment. NMFS predicts that marine mammals are likely to be behaviorally harassed in a manner we consider Level B harassment when exposed to underwater anthropogenic noise above received levels of 120 dB re 1 µPa (rms) for continuous (*e.g.* vibratory pile-driving, drilling) and above 160 dB re 1 µPa (rms) for non-explosive impulsive (*e.g.,* seismic airguns) or intermittent (*e.g.,* scientific sonar) sources.

Applicant's proposed activity includes the use of continuous (vibratory pile driving and removal) source, and therefore the 120 dB re 1 µPa (rms) is applicable.

Level A harassment for non-explosive sources—NMFS' Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Technical Guidance, 2016) 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). Applicant's proposed activity includes the use non-impulsive (vibratory pile driving and pile removal) source.

These thresholds were developed by compiling and synthesizing the best available science and soliciting input multiple times from both the public and peer reviewers to inform the final product, and are provided in the table below. The references, analysis, and methodology used in the development of the thresholds are described in NMFS 2016 Technical Guidance, which may be accessed at: *http://www.nmfs.noaa.gov/pr/acoustics/guidelines.htm*.

TABLE 3—CURRENT ACOUSTIC EXPOSURE CRITERIA FOR NON-EXPLOSIVE SOUND UNDERWATER

Hearing group	PTS onset thresholds		Behavioral thresholds	
	Impulsive	Non-impulsive	Impulsive	Non-impulsive
Low-Frequency (LF) Cetaceans	$L_{pk,flat}$: 219 dB, $L_{E,LF,24h}$: 183 dB	$L_{E,LF,24h}$: 199 dB	$L_{rms,flat}$: 160 dB	$L_{rms,flat}$: 120 dB.
Mid-Frequency (MF) Cetaceans	$L_{pk,flat}$: 230 dB, $L_{E,MF,24h}$: 185 dB	$L_{E,MF,24h}$: 198 dB.		
High-Frequency (HF) Cetaceans	$L_{pk,flat}$: 202 dB, $L_{E,HF,24h}$: 155 dB	$L_{E,HF,24h}$: 173 dB.		
Phocid Pinnipeds (PW) (Underwater)	$L_{pk,flat}$: 218 dB, $L_{E,PW,24h}$: 185 dB	$L_{E,PW,24h}$: 201 dB.		
Otariid Pinnipeds (OW) (Underwater)	$L_{pk,flat}$: 232 dB, $L_{E,OW,24h}$: 203 dB	$L_{E,OW,24h}$: 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 (Lpk) has a reference value of 1 µPa, and cumulative sound exposure level (LE) has a reference value of 1µPa2s. In this Table, thresholds are abbreviated to reflect American National Standards Institute standards (ANSI 2013). However, peak sound pressure is defined by ANSI as incorporating frequency weighting, which is not the intent for this Technical Guidance. Hence, the subscript "flat" is being included to indicate peak sound pressure should be flat weighted or unweighted within the generalized hearing range. The subscript associated with cumulative sound exposure level thresholds indicates the designated marine mammal auditory weighting function (LF, MF, and HF cetaceans, and PW and OW pinnipeds) and that the recommended accumulation period is 24 hours. The cumulative sound exposure level thresholds could be exceeded in a multitude of ways (*i.e.,* varying exposure levels and durations, duty cycle). When possible, it is valuable for action proponents to indicate the conditions under which these acoustic thresholds will be exceeded.

Ensonified Area

Here, we describe operational and environmental parameters of the activity that will feed into identifying the area ensonified above the acoustic thresholds.

Source Levels

The project includes vibratory pile driving and removal of steel H piles and sheet piles. The dimension of the H piles is unknown, but not is expected to be more than 12 inches (in).

Source levels for the steel H pile vibratory driving are based on in-water measurements reported by CALTRANS (2015) of 12-in steel H pile, which are 150 dB_{rms} and 165 dB_{peak} re 1 µPa at 10 meters (m). Source levels for the sheet pile are based on in-water measurements at the Elliot Bay Seawall Project (The Greenbush Group, 2015), which is 165 dB_{rms} and 180 dB_{peak} re 1 µPa at 10 m. For vibratory pile removal, the source levels are conservatively estimated using the pile driving source levels as proxies.

A summary of source levels from different pile driving and pile removal activities is provided in Table 4.

TABLE 4—SUMMARY OF IN-WATER PILE DRIVING SOURCE LEVELS

[At 10 m from source]

Method	Pile type/size	SEL (dB re 1 µPa^2-s)	SPL_{rms} (dB re 1 µPa)
Vibratory driving/removal	12-in steel H pile	150	150
Vibratory driving/removal	Sheet pile	165	165

These source levels are used to compute the Level A injury zones and to estimate the Level B harassment zones. For Level A harassment zones, since the peak source levels for both pile driving are below the injury thresholds, cumulative SEL were used to do the calculations using the NMFS acoustic guidance (NMFS 2016).

Estimating Injury Zones

When NMFS Technical Guidance (2016) was published, in recognition of the fact that ensonified area/volume could be more technically challenging to predict because of the duration component in the new thresholds, we developed a User Spreadsheet that includes tools to help predict a simple isopleth that can be used in conjunction with marine mammal density or occurrence to help predict takes. We note that because of some of the assumptions included in the methods used for these tools, we anticipate that isopleths produced are typically going to be overestimates of some degree, which will result in some degree of overestimate of Level A take. However, these tools offer the best way to predict appropriate isopleths when more sophisticated 3D modeling methods are not available, and NMFS continues to develop ways to quantitatively refine these tools, and will qualitatively address the output where appropriate.

For cumulative SEL (L_E), distances to marine mammal injury thresholds were estimated using NMFS Optional User Spreadsheet based on the noise exposure guidance.

Isopleths to Level B behavioral zones are based on rms SPL (SPL_{rms}) that are specific for non-impulse (vibratory pile driving) sources. Distances to marine mammal behavior thresholds were calculated using practical spreading.

A summary of the measured and modeled harassment zones is provided in Table 5.

TABLE 5—DISTANCES TO HARASSMENT ZONES

Pile type, size and pile driving method	Injury zone (m)					Behavior zone (m)
	LF cetacean	MF cetacean	HF cetacean	Phocid	Otariid	
Vibratory driving & removal, sheet pile, 10 piles/day	36.9	3.3	54.6	22.4	1.6	10,000
Vibratory driving & removal, steel H pile, 6 piles/day	2.6	0.2	3.9	1.6	0.1	1,000

Marine Mammal Occurrence

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

In most cases, marine mammal density data are from the U.S. Navy Marine Species Density Database (U.S. Navy 2015). Harbor seal density is based on a counts of harbor seals at 44 low-tide haul outs in Grays Harbor by Jeffries, *et al.* (2000), the estimated density of harbor seals in the US 101 Chehalis River Bridge project area is 29.4 animals per square kilometer (km^2).

The Navy Marine Species Density Database (U.S. Navy 2015) estimates the density of California sea lions in the waters offshore of Grays Harbor as 0.033 animals/km^2. This estimate will be used as a surrogate for Grays Harbor.

The Navy Marine Species Density Database (U.S. Navy 2015) estimates the density of Steller sea lions in the waters offshore of Grays Harbor as 0.0145 animals/km^2. This estimate will be used as a surrogate for Grays Harbor.

The Navy Marine Species Density Database (U.S. Navy 2015) estimates the density of harbor porpoises in the waters offshore of Grays Harbor as a range between 0.69 and 1.67 animals

per square kilometer. According to Evenson, *et al.* (2016), the maximum harbor porpoise density in the Strait of Juan de Fuca (approximately 105 miles north of Grays Harbor) in 2014 was 0.768 animals/km^2. The higher density estimate for waters offshore of Grays Harbor (1.67) will be used for this analysis.

According to counts conducted by Calambokidis *et al.* (2012), 29 gray whales were observed over a 12-year period during the months of July through September (the proposed period of project activities). Based on this data, an average of 2.25 gray whales may be present in Grays Harbor/south Washington coast during the 3-month period.

Take Calculation and Estimation

Here we describe how the information provided above is brought together to produce a quantitative take estimate. For all marine mammal species except gray whale, estimated takes are calculated based on ensonified area for a specific pile driving activity multiplied by the marine mammal density in the action area, multiplied by the number of pile driving (or removal) days. Distances to and areas of different harassment zones are listed in Tables 5 and 6. Total days for sheet pile driving and removal are five days each, and the total day for steel H pile driving and removal is one day each.

TABLE 6—AREAS OF HARASSMENT ZONES

Pile type, size and pile driving method	Injury zone (km^2)					Behavior zone (km^2)
	LF cetacean	MF cetacean	HF cetacean	Phocid	Otariid	
Vibratory driving & removal, sheet pile, 10 piles/day	0.004	0.000	0.009	0.002	0.000	2.13
Vibratory driving & removal, steel H pile, 6 piles/day	0.000	0.000	0.000	0.000	0.000	0.67

The results predicted that a total of 666 harbor seals, 1 California sea lion, 0 Steller sea lion, and 38 harbor porpoise could be exposure to received levels that would cause Level B harassment. However, owing to the prior observations that California sea lion and Steller sea lion's presence in the project area, we adjusted the take number of these species to 10.

For gray whales, the Level B takes were estimate based on an average sighting of 2.25 whales in Grays Harbor/south Washington Coast during the months of July through September (Calambokidis *et al.,* (2012) adjusted upwards to 3 animals.

Due to the extreme small injury zones (maximum zone is 0.009 km^2 for high-frequency cetacean), the calculation predicted no animals would be exposed to noise levels that could cause Level A harassment, and therefore no Level A take is authorized. A summary of estimated marine mammal Level B takes is listed in Table 7.

TABLE 7—ESTIMATED NUMBERS OF MARINE MAMMALS THAT MAY BE EXPOSED TO RECEIVED NOISE LEVELS THAT CAUSE LEVEL B HARASSMENT

Species	Density (animals/km^2)	Estimated Level B take	Abundance	Percentage
Pacific harbor seal	29.4	666	11,036	6.03
California sea lion	0.033	10	296,750	0.00
Steller sea lion	0.0145	10	71,562	0.00
Gray whale	NA	3	20,990	0.00
Harbor porpoise	1.67	38	11,233	0.34

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

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

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

(2) The practicability of the measures for applicant implementation, which may consider such things as cost, impact on operations, and, in the case of a military readiness activity, personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

Mitigation for Marine Mammals and Their Habitat

1. Time Restriction

Work would occur only during daylight hours, when visual monitoring of marine mammals can be conducted. In addition, all in-water construction will be limited to the period between July 16, 2018, and September 30, 2018.

2. Establishing and Monitoring Level A, Level B Harassment Zones, and Exclusion Zones

Before the commencement of in-water construction activities, which include vibratory pile driving and pile removal, WSDOT shall establish Level A harassment zones where received underwater SEL_{cum} could cause PTS (see above).

WSDOT shall also establish Level B harassment zones where received underwater SPLs are higher than 120 dB_{rms} re 1 μPa for non-impulsive noise sources (vibratory pile driving and pile removal).

WSDOT shall establish exclusion zones within which marine mammals could be taken by Level A harassment. For Level A harassment zones that is less than 10 m from the source, a minimum of 10 m distance should be established as an exclusion zone.

A summary of exclusion zones is provided in Table 8.

TABLE 8—EXCLUSION ZONES FOR VARIOUS PILE DRIVING ACTIVITIES AND MARINE MAMMAL HEARING GROUPS

Pile type, size and pile driving method	Exclusion zone (m)				
	LF cetacean	MF cetacean	HF cetacean	Phocid	Otariid
Vibratory driving and removal, sheet pile, 10 piles/day	37	10	55	22	10
Vibratory driving & removal, steel H pile, 6 piles/day	10	10	10	10	10

NMFS-approved protected species observers (PSO) shall conduct an initial survey of the exclusion zones to ensure that no marine mammals are seen within the Level A zones before pile driving and pile removal of a pile segment begins. If marine mammals are found within the exclusion zone, pile driving of the segment would be delayed until they move out of the area. If a marine mammal is seen above water and then dives below, the contractor would wait 30 minutes. If no marine mammals are seen by the observer in that time it can be assumed that the animal has moved beyond the exclusion zone.

If pile driving of a segment ceases for 30 minutes or more and a marine mammal is sighted within the designated exclusion zone prior to commencement of pile driving, the observer(s) must notify the pile driving operator (or other authorized individual) immediately and continue to monitor the exclusion zone. Operations may not resume until the marine mammal has exited the exclusion zone or 30 minutes have elapsed since the last sighting.

3. Shutdown Measures

WSDOT shall implement shutdown measures if a marine mammal is detected within an exclusion zone or is about to enter an exclusion zone listed in Table 8. In-water pile driving may not resume until the animal is seen leaving the exclusion zone, or 30 minutes have passed since the sighting of the animal within the exclusion zone.

Further, WSDOT shall implement shutdown measures if the number of authorized takes for any particular species reaches the limit under the IHA (if issued) and if such marine mammals are sighted within the vicinity of the project area and are approaching the Level B harassment zone during in-water construction activities.

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

Monitoring and Reporting

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

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

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

Monitoring Measures

WSDOT shall employ NMFS-approved PSOs to conduct marine mammal monitoring for its U.S. 101/Chehalis Bridge Repair Project. The purposes of marine mammal monitoring are to implement mitigation measures and learn more about impacts to marine mammals from WSDOT's construction activities. The PSOs will observe and collect data on marine mammals in and around the project area for 30 minutes before, during, and for 30 minutes after all pile removal and pile installation work. NMFS-approved PSOs shall meet the following requirements:

1. Independent observers (*i.e.,* not construction personnel) are required;
2. At least one observer must have prior experience working as an observer;
3. Other observers may substitute education (undergraduate degree in biological science or related field) or training for experience;
4. Where a team of three or more observers are required, one observer

should be designated as lead observer or monitoring coordinator. The lead observer must have prior experience working as an observer; and

5. NMFS will require submission and approval of observer CVs.

Monitoring of marine mammals around the construction site shall be conducted using high-quality binoculars (*e.g.,* Zeiss, 10 × 42 power). Due to the different sizes of ZOIs from different pile types, two different ZOIs and different monitoring protocols corresponding to a specific pile type will be established.

- For vibratory pile driving and pile removal of sheet piles, a total of four land-based PSOs will monitor the exclusion zones and Level B harassment zone.
- For vibratory pile driving and pile removal of H piles, a total of three land-based PSOs will monitor the exclusion zones and Level B harassment zone.

Locations of the land-based PSOs and routes of monitoring vessels are shown in WSDOT's Marine Mammal Monitoring Plan, which is available online at *www.nmfs.noaa.gov/pr/permits/incidental/construction.htm.*

To verify the required monitoring distance, the exclusion zones and ZOIs will be determined by using a range finder or hand-held global positioning system device.

Reporting Measures

WSDOT is required to submit a draft monitoring report within 90 days after completion of the construction work or the expiration of the IHA, whichever comes earlier. This report would detail the monitoring protocol, summarize the data recorded during monitoring, and estimate the number of marine mammals that may have been harassed. NMFS would have an opportunity to provide comments on the report, and if NMFS has comments, WSDOT would address the comments and submit a final report to NMFS within 30 days.

In addition, NMFS would require WSDOT to notify NMFS' Office of Protected Resources and NMFS' West Coast Stranding Coordinator within 48 hours of sighting an injured or dead marine mammal in the construction site. WSDOT shall provide NMFS and the Stranding Network with the species or description of the animal(s), the condition of the animal(s) (including carcass condition, if the animal is dead), location, time of first discovery, observed behaviors (if alive), and photo or video.

In the event that WSDOT finds an injured or dead marine mammal that is not in the construction area, WSDOT would report the same information as listed above to NMFS as soon as operationally feasible.

Negligible Impact Analysis and Determination

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

To avoid repetition, this introductory discussion of our analyses applies to all the species listed in Table 7, given that the anticipated effects of WSDOT's Chehalis Bridge repair project activities involving pile driving and pile removal on marine mammals are expected to be relatively similar in nature. There is no information about the nature or severity of the impacts, or the size, status, or structure of any species or stock that would lead to a different analysis by species for this activity, or else species-specific factors would be identified and analyzed.

For all marine mammal species, takes that are anticipated and authorized are expected to be limited to short-term Level B harassment (behavioral) because of the small scale (only a total of 100 piles to be installed and removed), lower source levels (small piles by vibratory pile driving and pile removal), and short durations (maximum five hours pile driving or pile removal per day). Marine mammals present in the vicinity of the action area and taken by Level B harassment would most likely show overt brief disturbance (startle reaction) and avoidance of the area from elevated noise levels during pile driving and pile removal. For these reasons, these behavioral impacts are not expected to affect marine mammals' growth, survival, and reproduction, especially considering the limited geographic area that would be affected in comparison to the much larger habitat for marine mammals in the Pacific Northwest.

The project also is not expected to have significant adverse effects on affected marine mammals' habitat, as analyzed in detail in the ''Anticipated Effects on Marine Mammal Habitat'' section. There is no ESA designated critical area in the vicinity of the Chehalis Bridge Project area. The project activities would not permanently modify existing marine mammal habitat. The activities may kill some fish and cause other fish to leave the area temporarily, thus impacting marine mammals' foraging opportunities in a limited portion of the foraging range; but, because of the short duration of the activities and the relatively small area of the habitat that may be affected, the impacts to marine mammal habitat are not expected to cause significant or long-term negative consequences. Therefore, given the consideration of potential impacts to marine mammal prey species and their physical environment, WSDOT's proposed construction activity at Chehalis Bridge would not adversely affect marine mammal habitat.

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

- No injury, series injury, or mortality is anticipated or authorized;
- All harassment is Level B harassment in the form of short-term behavioral modification; and
- No areas of specific importance to affected species are impacted.

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 prescribed monitoring and mitigation measures, NMFS finds that the total take from the proposed activity will have a negligible impact on all affected marine mammal species or stocks.

Small Numbers

As noted above, only small numbers of incidental take may be authorized under section 101(a)(5)(D) of the MMPA for specified activities other than military readiness activities. The MMPA does not define small numbers and so, in practice, 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.

The estimated takes are below seven percent of the population for all marine mammals (Table 7).

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

Unmitigable Adverse Impact Subsistence 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 (ESA)

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

Authorization

As a result of these determinations, NMFS has issued an IHA to the Washington State Department of Transportation for the U.S. 101/Chehalis River Bridge—Scour Repair in Washington State, provided the previously described mitigation, monitoring, and reporting requirements are incorporated.

Dated: October 26, 2017.

Donna S. Wieting,

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

[FR Doc. 2017–23748 Filed 10–31–17; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF DEFENSE

Department of the Navy

Meeting of the U.S. Naval Academy Board of Visitors

AGENCY: Department of the Navy, DoD.

ACTION: Notice of partially closed meeting.

SUMMARY: The U.S. Naval Academy Board of Visitors will meet to make such inquiry, as the Board shall deem necessary, into the state of morale and discipline, the curriculum, instruction, physical equipment, fiscal affairs, and academic methods of the Naval Academy.

DATES: The open session of the meeting will be held on December 4, 2017, from 9:00 a.m. to 11:15 a.m. The executive session held from 11:15 a.m. to 12:00 p.m., will be the closed portion of the meeting.

ADDRESSES: The meeting will be held at the United States Naval Academy in Annapolis, MD. The meeting will be handicap accessible.

FOR FURTHER INFORMATION CONTACT: Lieutenant Commander Lawrence Heyworth IV, USN, Executive Secretary to the Board of Visitors, Office of the Superintendent, U.S. Naval Academy, Annapolis, MD 21402–5000, 410–293–1503.

SUPPLEMENTARY INFORMATION: This notice of meeting is provided per the Federal Advisory Committee Act, as amended (5 U.S.C. App.). The executive session of the meeting from 11:15 a.m. to 12:00 p.m. on December 4, 2017, will consist of discussions of new and pending administrative/minor disciplinary infractions and non-judicial punishments involving midshipmen attending the Naval Academy to include but not limited to, individual honor/conduct violations within the Brigade, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy. For this reason, the executive session of this meeting will be closed to the public, as the discussion of such information cannot be adequately segregated from other topics, which precludes opening the executive session of this meeting to the public. Accordingly, the Department of the Navy/Assistant for Administration has determined in writing that the meeting shall be partially closed to the public because the discussions during the executive session from 11:15 a.m. to 12:00 p.m. will be concerned with matters protected under sections 552b(c) (5), (6), and (7) of title 5, United States Code.

Authority: 5 U.S.C. 552b

Dated: October 26, 2017.

E.K. Baldini,

Lieutenant Commander, Judge Advocate General's Corps, U.S. Navy, Federal Register Liaison Officer.

[FR Doc. 2017–23809 Filed 10–31–17; 8:45 am]

BILLING CODE 3810–FF–P

DEPARTMENT OF EDUCATION

National Assessment Governing Board Quarterly Board Meeting

AGENCY: National Assessment Governing Board, U.S. Department of Education.

ACTION: Announcement of open and closed meetings.

SUMMARY: This notice sets forth the agenda for the November 16–18, 2017 Quarterly Board Meeting of the National Assessment Governing Board (hereafter referred to as Governing Board). This notice provides information to members of the public who may be interested in attending the meeting or providing written comments related to the work of the Governing Board. Notice of this meeting is required under § 10(a)(2) of the Federal Advisory Committee Act (FACA).

DATES: The Quarterly Board Meeting will be held on the following dates:

- November 16, 2017 from 11:15 a.m. to 6:00 p.m.
- November 17, 2017 from 8:30 a.m. to 4:30 p.m.
- November 18, 2017 from 7:30 a.m. to 12:00 p.m.

ADDRESSES: Washington Marriott Georgetown, 1221 22nd Street NW., Washington, DC 20037.

FOR FURTHER INFORMATION CONTACT: Munira Mwalimu, Executive Officer/Designated Federal Official for the Governing Board, 800 North Capitol Street NW., Suite 825, Washington, DC 20002, telephone: (202) 357–6938, fax: (202) 357–6945, email: *Munira.Mwalimu@ed.gov.*

SUPPLEMENTARY INFORMATION:

Statutory Authority and Function: The Governing Board is established under the National Assessment of Educational Progress Authorization Act, Title III of Public Law 107–279. Written comments may be submitted electronically or in hard copy to the attention of the Executive Officer/Designated Federal Official (see contact information noted above). Information on the Governing Board and its work can be found at *www.nagb.gov.*

The Governing Board is established to formulate policy for the National