The EFP would authorize 3 vessels to conduct random stratified sampling using jig gear from 0–50 m at 36 sites, plus 9 fishermen's choice sites within the study area, for a total of 45 sites. Jig gear consists of a 16- or 26-oz (453.6- or 737.1-gram) Norwegian style diamond jig with three teaser hooks, spaced at 15 inches (38.1 centimeters (cm)) apart. At each site, two anglers would execute five 5-minute jig drops within one hour. Gear would be retrieved upon the first bite or at the 5-minute mark, whichever comes first.

All species captured would be weighed and measured. Photos and fin clips would be collected from all cod, and a subset of cod would have otoliths and stomach samples collected. Catch that are lethally sampled could be landed for personal use. All other catch would be returned to the ocean once sampling is complete. Scientific personnel from Maine Center for Coastal Fisheries would be aboard the vessels to conduct sampling activities. No catch would be landed for sale.

If approved, the applicant may request minor modifications and extensions to the EFP throughout the year. EFP modifications and extensions may be granted without further notice if they are deemed essential to facilitate completion of the proposed research and have minimal impacts that do not change the scope or impact of the initially approved EFP request. Any fishing activity conducted outside the scope of the exempted fishing activity would be prohibited.

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

Dated: June 16, 2025.

Kelly Denit,

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

[FR Doc. 2025–11242 Filed 6–17–25; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XE273]

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to the Kingston Ferry Trestle Seismic Retrofit Project in Kingston, 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 Washington State Department of Transportation (WSDOT) for authorization to take marine mammals incidental to the Kingston Ferry Terminal Trestle Seismic Retrofit Project in Kingston, WA. 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 Request for Public Comments at the end of this notice. NMFS will consider public comments prior to making any final decision on the issuance of the requested MMPA 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 18, 2025.

ADDRESSES: Comments should be addressed to the Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service and should be submitted via email to *ITP.Demarest@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: Austin Demarest, Office of Protected Resources, 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 used above are included in the relevant sections below and can be found in section 3 of the MMPA (16 U.S.C. 1362) and NMFS regulations at 50 CFR 216.103.

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 May 30, 2024, NMFS received a request from WSDOT for an IHA to take marine mammals incidental to construction activities associated with the Kingston Ferry Terminal Trestle Seismic Retrofit Project in Kingston, WA, *e.g.,* conducting pile driving in the Puget Sound. Following NMFS' review of the original application and multiple revised versions, WSDOT submitted a revised version on July 22, 2024. The application was deemed adequate and complete on August 20, 2024. WSDOT's request is for take of 12 species of marine mammals, by Level B harassment and, for 4 of these species, harbor porpoise, California sea lion, Steller sea lion, and harbor seal, Level A harassment. Neither WSDOT nor NMFS expect serious injury or mortality to result from this activity and, therefore, an IHA is appropriate.

Description of Proposed Activity

Overview

The WSDOT Ferries Division (WSF) operates and maintains 19 ferry terminals and 1 maintenance facility, all of which are located in either Puget Sound or the San Juan Islands. To improve, maintain, and preserve the terminals, WSF conducts construction, repair, and maintenance activities as part of its regular operations. One of these projects is the Kingston Ferry Terminal Seismic Retrofit Project and is the subject of this IHA request. The Kingston Ferry Terminal is in the central area of Puget Sound located on the southeast end of Whidbey Island, in Island County, Washington. This project's in-water work window is scheduled between August and February.

This construction project will use both impact and vibratory pile driving and removal. The purpose of this project is to construct a seismic retrofit of a portion of the Slip 2 Trestle approach to reduce the risk of failure due to a moderate to large earthquake; address scour issues at the Slip 1 bridge seat and walkway between Slips 1 and 2; and replace a seismically vulnerable bulkhead wall with a new wall. The impact from these actions is expected to result in behavioral harassment of 12 species of marine mammals.

Dates and Duration

Due to in-water work timing restrictions established by NMFS and US Fish and Wildlife Services to protect an ESA (Endangered Species Act)-listed salmonids, construction in the project area is limited each year from July 16 through February 15. In-water construction at the Kingston Ferry Terminal is planned during the August 1 to February 15 in-water work window. Construction is planned to begin July 15, 2025. The time it will take to complete pile driving depends on the difficulty in penetrating the substrate during pile installation. It is assumed that only one vibratory or impact hammer will be in operation at a time. Durations are conservative, and the actual amount of time to install and remove piles will likely be less. The maximum estimated days of pile driving is 85. The IHA would be valid for the statutory maximum of one year from the date of effectiveness. The IHA would become effective upon written notification from WSDOT to NMFS, but not beginning later than one year from the date of issuance or extending beyond two years from the date of issuance.

Specific Geographic Region

Construction will take place at the Kingston Ferry Terminal in Kingston, WA. This terminal is located northwest of Seattle and directly across from the Edmonds Ferry Terminal. The Puget Sound borders the terminal and can have heavy boat traffic. Land use near both ferry terminals is a mix of residential, commercial, industrial, and open space and/or undeveloped lands.

Detailed Description of the Specified Activity

The proposed project will include vibratory hammer driving and removal, and impact hammer installation to make the seismic updates to the Kingston Ferry Terminal. Impact pile driving will use a standard 500 strikes per pile. There will be a total 342 piles related to pile driving activity, but only 72 piles permanently installed. The following construction activities are anticipated for the project.

- (23) 18-inch concrete piles will be removed from the Slip 2 trestle
- (26) 24-inch steel pipe piles will be added to the Slip 2 trestle
- (16) 24-inch steel pipe piles will be added to the Slip 1 trestle to address scour issues
- (2) 30-inch steel pipe piles will be added to the Slip 1 bridge seat to address scour issues
- (14) 30-inch steel pipe piles
- (13) sheet piles will be used to construct the new bulkhead
- Up to (63) 24-inch diameter steel pipe piles may be required to construct a temporary work trestle

A summary of the piles to be removed and installed, along with pile driving information, can be found in table 1.

TABLE 1—SUMMARY OF PILE REMOVAL AND INSTALLATION

Project element	Diameter	Install or remove	Pile type	Method	Number of piles	Duration per pile (minutes)	Duration (hours)	Rate per day	Duration (days)
Slip 2 Trestle Approach	18-in	Remove	Concrete	Vibratory	23	30	12	8	3
Slip 2 Trestle Approach	24-in	Install	Steel	Vibratory	26	60	26	4	7
				Impact	26	30	13	4	7
Slip 1 Trestle	24-in	Install	Steel	Vibratory	16	60	16	4	4
				Impact	16	30	8	4	4
Temporary Work Trestle	24-in	Install	Steel	Vibratory	63	60	63	4	16
		Remove			63	60	63	4	16
Temporary Work Trestle	24-in	Install	Steel	Impact	63	15	16	4	16
Slip 1 Bridge Seat/Bulkhead	30-in	Install	Steel	Vibratory	16	60	16	4	4
				Impact	16	30	8	4	4
New Bulkhead Wall	Sheet Pile	Install	Steel	Vibratory	14	60	14	4	4
Totals					*72		255		85

TABLE 1—SUMMARY OF PILE REMOVAL AND INSTALLATION—Continued

Project element	Diameter	Install or remove	Pile type	Method	Number of piles	Duration per pile (minutes)	Duration (hours)	Rate per day	Duration (days)
Total Piling Activity (including, vibratory, impact, permanent, and temporary) installation and removal.	.....	.....	.....	.....	342	.....	.....	.....	.....

* Permanent installed.

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

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. Pacific and Alaska SARs. All values presented in table 2 are the most recent available at the time of publication (including from the draft 2024 SARs) and are available online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments.*

TABLE 2—SPECIES [1] WITH ESTIMATED TAKE FROM 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 Artiodactyla—Cetacea—Mysticeti (baleen whales)						
Family Eschrichtiidae:						
Gray Whale	*Eschrichtius robustus*	Eastern N Pacific	-, -, N	26,960 (0.05, 25,849, 2016).	801	131
Minke Whale	*Balaenoptera acutorostrata*	CA/OR/WA	-, -, N	915 (0.792, 509, 2018)	4.1	≥0.19
Odontoceti (toothed whales, dolphins, and porpoises)						
Family Delphinidae:						
Killer Whale	*Orcinus orca*	West Coast Transient	-, -, N	349 (N/A, 349, 2018)	3.5	0.4
Bottlenose Dolphin	*Tursiops truncatus*	CA/OR/WA offshore	-, -, N	3,477 (0.696, 2,048, 2018).	19.70	≥0.82
Long Beaked Common Dolphin.	*Delphinus capensis*	CA	-, -, N	83,379 (0.216, 69,636, 2018).	668	≥29.7
Pacific White-Sided Dolphin	*Lagenorhynchus obliquidens*	CA/OR/WA	-, -, N	34,999 (0.222, 29,090, 2018).	279	7
Family Phocoenidae (porpoises):						
Dall's Porpoise	*Phocoenoides dalli*	CA/OR/WA	-, -, N	16,498 (0.61, 10,286, 2018).	99	≥0.66
Harbor Porpoise	*Phocoena phocoena*	Washington Inland Waters	-, -, N	11,233 (0.37, 8,308, 2015).	66	≥7.2
Order Carnivora—Pinnipedia						
Family Otariidae (eared seals and sea lions):						
CA Sea Lion	*Zalophus californianus*	U.S.	-, -, N	257,606 (N/A, 233,515, 2014).	14,011	>321

TABLE 2—SPECIES [1] WITH ESTIMATED TAKE FROM THE SPECIFIED ACTIVITIES—Continued

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]
Steller Sea Lion	*Eumetopias jubatus*	Eastern	-, -, N	36,308 (N/A, 36,308, 2022).	2,178	93.2
Family Phocidae (earless seals):						
Harbor Seal	*Phoca vitulina*	Washington Inland Southern Puget Sound.	-, -, N	2,529 (0.08, 2,202, 2024) [5].	135	13.8
Northern Elephant Seal	*Mirounga angustirostris*	CA Breeding	-, -, N	187,386 (N/A, 85,369, 2013).	5,122	13.7

[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/*).

[2] 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.

[3] NMFS marine mammal stock assessment reports 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.

[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 (mortality/serious injury) often cannot be determined precisely and is in some cases presented as a minimum value or range.

[5] Stock Abundance and N_{min} value are found in *Pearson et al.,* 2024.

As indicated above, all twelve species (with twelve managed stocks) in table 2 temporally and spatially co-occur with the activity to the degree that take is reasonably likely to occur. All species that could potentially occur in the proposed project area are included in table 3–1 of the IHA application. While humpback whales and Southern Resident killer whales have been documented in the area, the implemented mitigation and monitoring and the temporal and spatial occurrence of these species is such that take is not expected to occur. The implemented shutdown zones for Southern Resident killer whales and humpback whales are the same as their Level B zones, so that no take will occur for these species with proper marine mammal monitoring during activity. In addition, Whale Report Alert System, the Orca Network, and NMFS will alert WSDOT as well as any other boats, construction, *etc.* in the area of any killer whales, Southern Resident or Transients that are spotted in the area. If killer whales are known to be in the area, all activity will shut down in order to prevent take.

Harbor Seal

Harbor seals are the most numerous marine mammal species in Puget Sound. harbor seals are non-migratory; their local movements are associated with such factors as tides, weather, season, food availability and reproduction (Scheffer and Slipp 1944; Bigg 1969, 1981). They are not known to make extensive pelagic migrations, although some long-distance movements of tagged animals in Alaska (174 kilometers) and along the U.S. west coast (up to 550 kilometers) have been recorded (Pitcher and McAllister 1981; Brown and Mate 1983; Herder 1983).

They haul out on rocks, reefs, beaches, and drifting glacial ice and feed in marine, estuarine, and occasionally fresh waters. Harbor seals generally are non-migratory, with local movements associated with such factors as tides, weather, season, food availability, and reproduction (Scheffer and Slipp 1944; Fisher 1952; Bigg 1969, 1981). Within U.S. West Coast waters, five stocks of harbor seals are recognized: (1) Southern Puget Sound (south of the Tacoma Narrows Bridge); (2) Washington Northern Inland Waters (including Puget Sound north of the Tacoma Narrows Bridge, the San Juan Islands, and the Strait of Juan de Fuca); (3) Hood Canal; (4) Oregon/Washington Coast; and (5) California. Harbor seals in the project areas would be from the Washington Northern Inland Waters stock.

Harbor seals are the only pinniped species that occurs year-round and breeds in Washington waters (Jeffries *et al.,* 2000). Pupping seasons vary by geographic region, with pups born in coastal estuaries (Columbia River, Willapa Bay, and Grays Harbor) from mid-April through June; Olympic Peninsula coast from May through July; San Juan Islands and eastern bays of Puget Sound from June through August; southern Puget Sound from mid-July through September; and Hood Canal from August through January (Jeffries *et al.,* 2000). The most recent estimate for the Washington Northern Inland Waters Stock is 16,451 based on surveys conducted in 2019 (Carretta *et al.,* 2023).

There are two documented haulout sites in the project area (WDFW 2000), one California sea lion haulout approximately 5 km SE, and one California sea lion/harbor seal haulout approximately 8 km NE of the project site (figure 3–1). Seals and sea lions also make use of undocumented docks, buoys, and beaches in the area. In recent nearby Puget Sound projects, Edmonds Ferry Terminal Project and Mukilteo Multimodal Project, there were 3,557 sightings over 175 in-water construction days with a maximum of 98 sightings in one day.

Northern Elephant Seal

Northern elephant seals breed and give birth in California (U.S.) and Baja California (Mexico), primarily on offshore islands (Stewart *et al.,* 1994), from December to March (NMFS 2015). Males migrate to the Gulf of Alaska and western Aleutian Islands along the continental shelf to feed on benthic prey, while females migrate to pelagic areas in the Gulf of Alaska and the central North Pacific Ocean to feed on pelagic prey (Le Boeuf *et al.,* 2000). Adults return to land between March and August to molt, with males returning later than females. Adults return to their feeding areas again between their spring/summer molting and their winter breeding seasons (Carretta *et al.,* 2015).

There were two sightings of elephant seals in the nearby Edmonds Ferry Terminal and Mukilteo Multimodal Projects over the 175 day construction period. Elephant seals are generally considered rare in Puget Sound. However, a female elephant seal has been reported hauled out in Mutiny Bay on Whidbey Island periodically since 2010. She was observed alone for her first three visits to the area, but in

March 2015, she was seen with a pup. Since then, she has produced two more pups, born in 2018 and 2020. Northern elephant seals generally give birth in January but this individual has repeatedly given birth in March. She typically returns to Mutiny Bay in April and May to molt. Her pups have also repeatedly returned to haulout on nearby beaches (Orca Network 2020).

California Sea Lion

The California sea lion is the most frequently sighted pinniped found in Washington waters and uses haulout sites along the outer coast, Strait of Juan de Fuca, and in Puget Sound. Haulout sites are located on jetties, offshore rocks and islands, log booms, marina docks, and navigation buoys. This species also may be frequently seen resting in the water, rafted together in groups in Puget Sound. Only male California sea lions migrate into Pacific Northwest waters, with females remaining in waters near their breeding rookeries off the coast of California and Mexico. The California sea lion was considered rare in Washington waters prior to the 1950s. More recently, peak numbers of 3,000 to 5,000 animals move into the Salish Sea during the fall and remain until late spring, when most return to breeding rookeries in California and Mexico (Jeffries *et al.,* 2000).

There are two documented haulout sites in the project area (WDFW 2000), one California sea lion haulout approximately 5 km SE, and one California sea lion/harbor seal haulout approximately 8 km NE of the project site. Seals and sea lions also make use of undocumented docks, buoys, and beaches in the area. In the Edmonds Terminal and Mukilteo Multimodal Project there were 2,055 sightings over the 175 construction period with a maximum of 114 sightings in one day.

Steller Sea Lion

Steller sea lions range along the North Pacific Rim from northern Japan to California (Loughlin *et al.,* 1984). There are two separate stocks of Steller sea lions, the Eastern U.S. stock, which occurs east of Cape Suckling, Alaska (144° W), and the Western U.S. stock, which occurs west of that point. Only the Western stock of Steller sea lions, which is designated as the Western DPS (distinct population segment) of Steller sea lions, is listed as endangered under the ESA (78 FR 66139, November 4, 2013). Unlike the Western U.S. stock of Steller sea lions, there has been a sustained and robust increase in abundance of the Eastern U.S. stock throughout its breeding range. The eastern stock 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), with more than 100 pups born there in 2015 (Muto *et al.,* 2020).

There are no documented Steller sea lion haulouts in the project area, but there were 48 sightings reported in the Edmonds and Mukilteo Projects with a maximum of 6 in one day.

Killer Whale (Transient)

There are three distinct ecotypes, or forms, of killer whales recognized in the north Pacific: resident, transient, and offshore. The three ecotypes differ morphologically, ecologically, behaviorally, and genetically. Resident killer whales exclusively prey upon fish, with a clear preference for salmon (Ford and Ellis 2006; Hanson *et al.,* 2021; Ford *et al.,* 2016), while transient killer whales exclusively prey upon marine mammals (Caretta *et al.,* 2019). Less is known about offshore killer whales, but they are believed to consume primarily fish, including several species of shark (Dahlheim *et al.,* 2008). Currently, there are eight killer whale stocks recognized in the U.S. Pacific (Carretta *et al.,* 2021; Muto *et al.,* 2021). Of those, individuals from the West Coast Transient stock may occur in the project areas and be taken incidental to WSDOT's proposed activities.

Within Puget Sound, transient killer whales primarily hunt pinnipeds and porpoises, though some groups will occasionally target larger whales. The West Coast Transient stock of killer whales occurs from California through southeast Alaska (Muto *et al.,* 2021). The seasonal movements of transients are largely unpredictable, although there is a tendency to investigate harbor seal haulouts off Vancouver Island more frequently during the pupping season in August and September (Baird 1995; Ford 2013). Transient killer whales have been observed in central Puget Sound in all months (Orca Network 2021). During WSDOTs Edmonds and Mukilteo Projects there were 44 sightings of Transients reported with a maximum of 15 in one day.

Gray Whale

Generally, the Eastern North Pacific stock of gray whales feed in the Arctic in summer and fall months and then breed during winter and spring months off the coast of Mexico (Carretta *et al.* 2022, Calambokidis *et al.* 2024). During migration from Mexico to the Arctic, a subpopulation of the Eastern North Pacific stock of gray whales, commonly referred to as the Pacific Coast Feeding Group (PCFG), stop and feed along the coasts of Oregon and Washington including the northern Puget Sound (Calambokidis *et al.* 2024). A subgroup of the PCFG that feed in the Puget Sound, recently termed as ''Sounders'' gray whales, are the most abundant from February through May. The highest concentrations of Sounders gray whales occur on the Southern ends of Whidbey and Camano Islands in the North Puget Sound (Calambokidis *et al.* 2024). Although Sounders gray whale observations are the highest in the Northern Puget Sound, observations also occur in the Southern Puget Sound and Elliott Bay, which is in the proposed action area (Orca Network, 2021).

There are Biologically Important Areas (BIAs) for migrating gray whales in the inland waters of the Northern Puget Sound from January through July and October through December and for feeding gray whales between February and June (Calambokidis *et al.,* 2015; Calambokidis *et al.,* 2024). There were two gray whale sightings in the Edmonds and Mukilteo Projects with a maxim of one per day.

The NMFS declared an unusual mortality event (UME) for gray whales on May 30, 2019 after elevated numbers of strandings occurred along the Pacific coast of North America, The UME started December 17, 2018 and was closed on November 9, 2023, with peak strandings occurring from December 17, 2018 through December 31, 2020. The UME included 690 gray whale standings, 347 in the United States, 316 in Mexico, and 27 in Canada. Necropsies were performed on a subset of the dead whales and malnutrition was common followed by evidence of killer whale predation, entanglement, vessel strikes, and biotoxins were found in some carcasses as in years without UMEs. NMFS concluded that the nutritional conditions of live gray whales was lower prior to and during the UME. Gray whale abundance declined and calf production declined following the UME but calf production has begun to rebound. Additional information about this UME can be found at *https://www.fisheries.noaa.gov/national/marine-life-distress/2019-2023-eastern-north-pacific-gray-whale-ume-closed*.

Harbor Porpoise

In the eastern North Pacific Ocean, harbor porpoises are found in coastal and inland waters from Point Barrow,

along the Alaskan coast, and down the west coast of North America to Point Conception, California (Gaskin 1984). Harbor porpoises are known to occur year-round in the inland trans-boundary waters of Washington and British Columbia, Canada (Osborne *et al.,* 1988), and along the Oregon/Washington coast (Barlow 1988, Green *et al.,* 1992). There was a significant decline in harbor porpoise sightings within southern Puget Sound between the 1940s and 1990s but sightings have increased seasonally in the last 10 years (Carretta *et al.,* 2019). Annual winter aerial surveys conducted by the Washington Department of Fish and Wildlife from 1995 to 2015 revealed an increasing trend in harbor porpoise in Washington inland waters, including the return of harbor porpoise to Puget Sound. The data suggest that harbor porpoise were already present in Juan de Fuca, Georgia Straits, and the San Juan Islands from the mid-1990s to mid-2000s, and then expanded into Puget Sound and Hood Canal from the mid-2000s to 2015, areas they had used historically but abandoned. Changes in fishery-related entanglement was suspected as the cause of their previous decline and more recent recovery, including a return to Puget Sound (Evenson *et al.,* 2016).

Seasonal surveys conducted in spring, summer, and fall 2013–2015 in Puget Sound and Hood Canal documented substantial numbers of harbor porpoise in Puget Sound. Observed porpoise numbers were twice as high in spring as in fall or summer, indicating a seasonal shift in distribution of harbor porpoise (Smultea 2015). There were 210 sightings of harbor porpoise in the Edmonds and Mukilteo Projects with a maximum of 18 sightings in one day.

Dall's Porpoise

Dall's porpoises are endemic to temperate waters of the North Pacific Ocean. Off the U.S. West Coast, they are commonly seen in shelf, slope, and offshore waters (Morejohn 1979). Sighting patterns from aerial and shipboard surveys conducted in California, Oregon, and Washington (Green *et al.,* 1992, 1993; Forney and Barlow 1998; Barlow 2016) suggest that north-south movement between these states occurs as oceanographic conditions change, both on seasonal and inter-annual time scales. Dall's porpoise are considered rare in Puget Sound. During construction for the Washington State Ferries Multimodal Project at Colman Dock in Seattle, only eight Dall's porpoises were observed, with a maximum of five individuals observed on a single day during the 377 construction days from 2017 through 2021 (WSDOT 2022). During the Edmonds and Mukilteo Projects there were three total sightings of Dall's porpoise with a maximum of two in one day.

Pacific White-Sided Dolphin

The Pacific white-sided dolphin is found in cool temperate waters of the North Pacific from the southern Gulf of California to Alaska. Across the North Pacific, it appears to have a relatively narrow distribution between 38° N and 47° N (Brownell *et al.,* 1999). In the eastern North Pacific Ocean, the Pacific white-sided dolphin is one of the most common cetacean species, occurring primarily in shelf and slope waters (Green *et al.,* 1993; Barlow 2003, 2010). It is known to occur close to shore in certain regions, including (seasonally) southern California (Brownell *et al.,* 1999). Results of aerial and shipboard surveys strongly suggest seasonal north-south movements of the species between California and Oregon/Washington; the movements apparently are related to oceanographic influences, particularly water temperature (Green *et al.,* 1993; Forney and Barlow 1998; Buchanan *et al.,* 2001). During winter, this species is most abundant in California slope and offshore areas; as northern waters begin to warm in the spring, it appears to move north to slope and offshore waters off Oregon/Washington (Green *et al.,* 1992, 1993; Forney 1994; Forney *et al.,* 1995; Buchanan *et al.,* 2001; Barlow 2003).

The highest encounter rates off Oregon and Washington have been reported during March-May in slope and offshore waters (Green *et al.,* 1993). Large groups of Pacific white-sided dolphins have been observed in San Juan Channel (Orca Network 2012), north of Puget Sound, and may rarely occur in the central Puget Sound. During construction of the Edmonds and Mukilteo Projects, there were no Pacific White-Sided dolphin sightings.

Long-Beaked Common Dolphin

Long-beaked common dolphins are commonly found along the U.S. West Coast, from Baja California, Mexico (including the Gulf of California), northward to about central California (Carretta *et al.,* 2021). The Salish Sea is not considered part of their typical range (Carretta *et al.,* 2021), but there have been reports of long-beaked common dolphins in inland waters. Two individual common dolphins were observed in August and September of 2011 (Whale Museum, 2015). The first record of a pod of long-beaked common dolphins in this area came in the summer of 2016. Beginning on June 16, 2016 long-beaked common dolphins were observed near Victoria, B.C. Over the following weeks, a pod of 15 to 20 (including a calf) was observed in central and southern Puget Sound. They were positively identified as long-beaked common dolphins (Orca Network 2016). There were no long-beaked common dolphins sighted at the Edmonds and Mukilteo Projects.

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.*). Subsequently, NMFS (2024) updated generalized hearing ranges for these marine mammal hearing groups. Generalized hearing ranges were chosen based on the ~65 decibel (dB) threshold from composite audiograms, previous analyses in NMFS (2018), and/or data from Southall *et al.* (2007) and Southall *et al.* (2019). Marine mammal hearing groups and their associated hearing ranges are provided in table 3. For more information see the Estimated Take of Marine Mammals section.

TABLE 3—MARINE MAMMAL HEARING GROUPS

[NMFS, 2024]

Hearing group	Generalized hearing range *
Low-frequency (LF) cetaceans (baleen whales)	7 Hz to 36 kHz.
High-frequency (HF) cetaceans (dolphins, toothed whales, beaked whales, bottlenose whales)	150 Hz to 160 kHz.
Very High-frequency (VHF) cetaceans (true porpoises, *Kogia,* river dolphins, Cephalorhynchid, *Lagenorhynchus cruciger* & *L. australis*).	200 Hz to 165 kHz.
Phocid pinnipeds (PW) (underwater) (true seals)	40 Hz to 90 kHz.
Otariid pinnipeds (OW) (underwater) (sea lions and fur seals)	60 Hz to 68 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 may not be as broad. Generalized hearing range chosen based on ~65 dB threshold from composite audiogram, previous analysis in NMFS 2018, and/or data from Southall *et al.* 2007; Southall *et al.* 2019. Additionally, animals are able to detect very loud sounds above and below that ''generalized'' hearing range.

For more detail concerning these groups and associated frequency ranges, please see NMFS (2024) 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.

Acoustic effects on marine mammals during the specified activities can occur from impact pile driving and vibratory driving and removal. The effects of underwater noise from WSDOT's proposed activities are expected to result in Level A and Level B harassment of marine mammals in the action areas.

Description of Sound Sources

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

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

In-water construction activities associated with the project would include impact pile driving, vibratory pile driving, and vibratory pile removal. The sounds produced by these activities fall into one of two general sound types: impulsive and non-impulsive. Impulsive sounds (*e.g.,* explosions, gunshots, sonic booms, impact pile driving) are typically transient, brief (less than 1 second), broadband, and consist of high peak sound pressure with rapid rise time and rapid decay (ANSI, 1986; NIOSH, 1998; ANSI, 2005; NMFS, 2014). 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 rapid rise/decay time that impulsive sounds do (ANSI, 1995; NIOSH, 1998; NMFS, 2024). 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.,* Southall *et al.,* 2007).

Two types of pile hammers would be used on this project: impact and vibratory. Impact hammers operate by repeatedly dropping a heavy piston onto a pile to drive the pile into the substrate. Sound generated by impact hammers is characterized by rapid rise times and high peak levels. Vibratory hammers install piles by vibrating them and allowing the weight of the hammer to push them into the sediment. Vibratory hammers produce non-impulsive continuous sounds and 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).

Potential or likely impacts on marine mammals from WSDOT's proposed construction include both non-acoustic and acoustic stressors. Non-acoustic stressors include the physical presence of equipment, vessels, and personnel. However, impacts from WSDOT's proposed construction is expected to primarily be acoustic in nature. Expected stressors from WSDOT's proposed activities are expected to be a result of heavy equipment operation for impact driving and vibratory driving and removal.

Potential Effects of Underwater Sound on Marine Mammals

The introduction of anthropogenic noise into the aquatic environment from

pile driving equipment is the primary means by which marine mammals may be harassed from WSDOT's specified activities. In general, animals exposed to natural or anthropogenic sound may experience physical and psychological effects, ranging in magnitude from none to severe (Southall *et al.,* 2007). Generally, exposure to pile driving and removal and other construction noise has the potential to result in auditory threshold shifts and behavioral reactions (*e.g.,* avoidance, temporary cessation of foraging and vocalizing, changes in dive behavior). Exposure to anthropogenic noise can also lead to non-observable physiological responses such 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 and demolition 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. mother 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. No physiological effects other than auditory injury are anticipated or proposed to be authorized, and therefore are not discussed further.

NMFS defines a noise-induced threshold shift (TS) as a change, usually an increase, in the threshold of audibility at a specified frequency or portion of an individual's hearing range above a previously established reference level (NMFS, 2024). The amount of threshold shift is customarily expressed in dB. A TS can be permanent or temporary. As described in NMFS (2024), there are numerous factors to consider when examining the consequence of TS, including, but not limited to, the signal temporal pattern (*e.g.,* impulsive or non-impulsive), likelihood an individual would be exposed for a long enough duration or to a high enough level to induce a TS, the magnitude of the TS, time to recovery (seconds to minutes or hours to days), the frequency range of the exposure (*i.e.,* spectral content), the hearing and vocalization frequency range of the exposed species relative to the signal's frequency spectrum (*i.e.,* how animal uses sound within the frequency band of the signal; *e.g.,* Kastelein *et al.,* 2014), and the overlap between the animal and the source (*e.g.,* spatial, temporal, and spectral).

Auditory Injury (AUD INJ)—AUD INJ is damage to the inner ear that can result in destruction of tissue, such as the loss of cochlear neuron synapses or auditory neuropathy (Houser 2021; Finneran 2024). Auditory injury may or may not result in a permanent threshold shift (PTS).

Permanent threshold shift—PTS is 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 (ANSI 1995; Yost 2007). Available data from humans and other terrestrial mammals indicate that a 40 dB threshold shift approximates PTS onset (see Ward *et al.* 1958, 1959; Ward 1960; Kryter *et al.* 1966; Miller 1974; Ahroon *et al.* 1996; Henderson *et al.* 2008).

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 (see Southall *et al.,* 2007), a TTS of 6 dB is considered the minimum threshold shift clearly larger than any day-to-day or session-to-session variation in a subject's normal hearing ability (Schlundt *et al.,* 2000; Finneran *et al.,* 2000, 2002). As described in Finneran (2016), marine mammal studies have shown the amount of TTS increases with cumulative sound exposure level (SEL_{cum}) in an accelerating fashion: At low exposures with lower $SEL_{cum,}$ the amount of TTS is typically small and the growth curves have shallow slopes. At exposures with higher SEL_{cum}, the growth curves become steeper and approach linear relationships with the noise SEL.

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

Currently, TTS data only exist for four species of cetaceans (bottlenose dolphin, beluga whale (*Delphinapterus leucas*), harbor porpoise, and Yangtze finless porpoise (*Neophocoena asiaeorientalis*)) and five species of pinnipeds exposed to a limited number of sound sources (*i.e.,* mostly tones and octave-band noise) in laboratory settings (Finneran, 2015). TTS was not observed in trained spotted (*Phoca largha*) and ringed (*Pusa hispida*) seals exposed to impulsive noise at levels matching previous predictions of TTS onset (Reichmuth *et al.,* 2016). In general, harbor seals and harbor porpoises have a lower TTS onset than other measured pinniped or cetacean species (Finneran, 2015). The potential for TTS from impact pile driving exists. After exposure to playbacks of impact pile driving sounds (rate 2,760 strikes/hour) in captivity, mean TTS increased from 0 dB after 15 minute exposure to 5 dB after 360 minute exposure; recovery occurred within 60 minutes (Kastelein *et al.,* 2016). Additionally, the existing marine mammal TTS data come from a limited number of individuals within these species. No data are available on noise-induced hearing loss for mysticetes. Nonetheless, what we considered is the best available science. For summaries of data on TTS in marine mammals or for further discussion of TTS onset thresholds, please see Southall *et al.* (2007), Finneran and Jenkins (2012), Finneran (2015), and table 4 in NMFS (2024).

WSDOT proposes to use impact pile driving to install piles for this project. There would likely be pauses in activities producing the sound (*e.g.,* impact pile driving) during each day. Given these pauses and the fact that many marine mammals are likely moving through the project areas 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; 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 haulout 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.,* 2004; Southall *et al.,* 2007; Weilgart, 2007; Archer *et al.,* 2010). Behavioral reactions can vary not only among individuals but also within an individual, depending on previous experience with a sound source, context, and numerous other factors (Ellison *et al.,* 2012), and can vary depending on characteristics associated with the sound source (*e.g.,* whether it is moving or stationary, number of sources, distance from the source). In general, pinnipeds seem more tolerant of, or at least habituate more quickly to, potentially disturbing underwater sound than do cetaceans, and generally seem to be less responsive to exposure to industrial sound than most cetaceans. Please see appendices B and C of Southall *et al.* (2007) for a review of studies involving marine mammal behavioral responses to sound.

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

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

Airborne Acoustic Effects—Pinnipeds that occur near the project site could be exposed to airborne sounds associated with pile driving and removal that have the potential to cause behavioral harassment, depending on their distance from pile driving activities. Cetaceans are not expected to be exposed to airborne sounds that would result in harassment as defined under the MMPA. Airborne noise would primarily be an issue for pinnipeds that are swimming or hauled out near the project site within the range of noise levels elevated above the acoustic criteria. We recognize that pinnipeds in the water could be exposed to airborne sound that may result in behavioral harassment when looking with their heads above water. Most likely, airborne sound would cause behavioral responses similar to those discussed above in relation to underwater sound. For instance, anthropogenic sound could cause hauled out pinnipeds to exhibit changes in their normal behavior, such as reduction in vocalizations, or cause them to temporarily abandon the area and move further from the source. There are two documented haulout sites in the project ZOI (WDFW 2000), one California sea lion haulout approximately 5 km SE, and one California sea lion/harbor seal haulout approximately 8 km NE of the project site (figure 3–1). In-air noise will not reach the documented haulouts. Seals and sea lions also make use of undocumented docks, buoys, and beaches in the area. Pinnipeds may experience noise above the thresholds when passing through the noise zones noted above. Airborne take will be accounted for within the Level A and B underwater take estimates because animals cannot be taken more than once in a day. Thus, the behavioral harassment of these animals is already accounted for in these estimates of potential take. Therefore, we do not believe that authorization of incidental take resulting from airborne sound for pinnipeds is warranted, and airborne sound is not discussed further here.

Marine Mammal Habitat Effects

WSDOT's proposed project would have temporary and localized impacts on marine mammals and their habitat. Temporary, intermittent, and short-term habitat alteration may result from increased noise levels within the Level A and Level B harassment zones. Effects on marine mammals will be limited to temporary displacement from pile installation and removal noise, and effects on prey species will be similarly limited in time and space.

Water Quality—Short-term turbidity is a water quality effect of most in-water work, including pile driving and removal. WSF must comply with state water quality standards during these operations by limiting the extent of turbidity in the immediate project area.

Roni and Weitkamp (1996) monitored water quality parameters during a pier replacement project in Manchester, Washington. The study measured water quality before, during and after pile removal and driving. The study found that construction activity at the site had ''little or no effect on dissolved oxygen, water temperature and salinity,'' and turbidity (measured in nephelometric turbidity units [NTU]) at all depths nearest the construction activity was typically less than 1 NTU higher than stations farther from the project area throughout construction. In general, turbidity associated with pile installation is localized to about a 7.-meter radius around the pile (Everitt *et al.* 1980).

Cetaceans are not expected to be close enough to the Kingston Ferry Terminal to experience turbidity, and any pinnipeds will be transiting the terminal area and could avoid localized areas of turbidity. Therefore, the impact from increased turbidity levels is expected to be discountable to marine mammals.

In-Water Effects on Potential Foraging Habitat—The area likely impacted by the project is relatively small and provides marginal foraging habitat for marine mammals and fishes compared to the available habitat in Puget Sound. The area is highly influenced by anthropogenic activities. The total seafloor area affected by pile installation and removal is a small area compared to the vast foraging area available to marine mammals in the area. Furthermore, pile driving and removal at the project site would not obstruct long-term movements or migration of marine mammals.

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

In-Water Effects on Potential Prey—Sound may affect marine mammals through impacts on the abundance, behavior, or distribution of prey species (*e.g.,* crustaceans, cephalopods, fish, zooplankton, other marine mammals). Marine mammal prey varies by species, season, and location. Here, we describe studies regarding the effects of noise on known marine mammal prey other than other marine mammals (which have been discussed earlier).

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 and Mann, 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; 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; Popper *et al.,* 2016).

SPLs of sufficient strength have been known to cause injury to fish and fish mortality. 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.* (2012a) showed that a TTS of 4–6 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.,* 2012b; Casper *et al.,* 2013).

The most likely impact to fishes from pile driving and removal and construction activities at the project areas would be temporary behavioral avoidance of the area. The duration of fish avoidance of this area after pile driving stops is unknown, but a rapid return to normal recruitment, distribution, and behavior is anticipated.

Construction activities, in the form of increased turbidity, have the potential to adversely affect forage fish in the project areas. Forage fish form a significant prey base for many marine mammal species that occur in the project areas. Increased turbidity is expected to occur in the immediate vicinity of construction activities. However, suspended sediments and particulates are expected to dissipate quickly within a single tidal cycle. Given the limited area affected and high tidal dilution rates any effects on forage fish are expected to be minor or negligible. Finally, exposure to turbid waters from construction activities is not expected to be different from the current exposure; fish and marine mammals in Puget Sound are routinely exposed to substantial levels of suspended sediment from natural and anthropogenic sources.

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 harbor seal, harbor porpoise, Steller sea lion, and California sea lion because predicted auditory injury zones are larger than for other species and those four species are more commonly seen within the area. Auditory injury is unlikely to occur for Northern elephant seals, transient killer whales, gray whales, minke whales, Dall's porpoises, common bottlenose dolphins, Pacific white-sided dolphins, and long-beaked common dolphins. 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 criteria above which NMFS believes the best available science indicates marine mammals will likely be behaviorally harassed or incur some degree of auditory injury; (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 Criteria

NMFS recommends the use of acoustic criteria 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 auditory injury of some degree (equated to Level A harassment). We note that the criteria for AUD INJ, as well as the names of two hearing groups, have been recently updated (NMFS 2024) as reflected below in the Level A harassment section.

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, 2019, 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.

WSDOTs proposed activity includes the use of continuous (vibratory hammer) and impulsive (impact hammer) sources, and therefore the RMS SPL thresholds of 120 and 160 dB re 1 μPa, respectively, are applicable.

Level A harassment—NMFS' Updated Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 3.0) (Updated Technical Guidance, 2024) identifies dual criteria to assess auditory injury (Level A harassment) to five different underwater marine mammal groups (based on hearing sensitivity) as a result of exposure to noise from two different types of sources (impulsive or non-impulsive).WSDOTs proposed activity includes the use of impulsive (impact hammer) and non-impulsive (vibratory hammer) sources.

The 2024 Updated Technical Guidance criteria include both updated thresholds and updated weighting functions for each hearing group. The thresholds are provided in the table below. The references, analysis, and methodology used in the development of the criteria are described in NMFS' 2024 Updated Technical Guidance, which may be accessed at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance-other-acoustic-tools.*

TABLE 4—THRESHOLDS IDENTIFYING THE ONSET OF PERMANENT THRESHOLD SHIFT

[NMFS 2024]

Hearing group	AUD INJ onset thresholds* (received level)	
	Impulsive	Non-impulsive
Low-Frequency (LF) Cetaceans	*Cell 1:* $L_{p,0\text{-pk,flat}}$: 222 dB; $L_{E,p,\ LF,24h}$: 183 dB	*Cell 2:* $L_{E,p,\ LF,24h}$: 197 dB.
High-Frequency (HF) Cetaceans	*Cell 3:* $L_{p,0\text{-pk,flat}}$: 230 dB; $L_{E,p,\ HF,24h}$: 193 dB	*Cell 4:* $L_{E,p,\ HF,24h}$: 201 dB.
Very High-Frequency (VHF) Cetaceans	*Cell 5:* $L_{p,0\text{-pk,flat}}$: 202 dB; $L_{E,p,VHF,24h}$: 159 dB	*Cell 6:* $L_{E,p,\ VHF,24h}$: 181 dB.
Phocid Pinnipeds (PW) (Underwater)	*Cell 7* $L_{p,0\text{-pk,flat}}$: 223 dB; $L_{E,p,PW,24h}$: 183 dB	*Cell 8:* $L_{E,p,PW,24h}$: 195 dB.

TABLE 4—THRESHOLDS IDENTIFYING THE ONSET OF PERMANENT THRESHOLD SHIFT—Continued

[NMFS 2024]

Hearing group	AUD INJ onset thresholds * (received level)	
	Impulsive	Non-impulsive
Otariid Pinnipeds (OW) (Underwater)	*Cell 9:* $L_{p,0\text{-pk,flat}}$*:* 230 dB; $L_{E,p,OW,24h}$*:* 185 dB	*Cell 10:* $L_{E,p,OW,24h}$*:* 199 dB.

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

Note: Peak sound pressure level ($L_{p,0\text{-pk}}$) has a reference value of 1 µPa, and weighted cumulative sound exposure level ($L_{E,p}$) has a reference value of 1µPa^{2}s. In this Table, thresholds are abbreviated to be more reflective of International Organization for Standardization standards (ISO 2017). The subscript "flat" is being included to indicate peak sound pressure are flat weighted or unweighted within the generalized hearing range of marine mammals (*i.e.,* 7 Hz to 165 kHz). The subscript associated with cumulative sound exposure level thresholds indicates the designated marine mammal auditory weighting function (LF, HF, and VHF cetaceans, and PW and OW pinnipeds) and that the recommended accumulation period is 24 hours. The weighted cumulative sound exposure level thresholds could be exceeded in a multitude of ways (*i.e.,* varying exposure levels and durations, duty cycle). When possible, it is valuable for action proponents to indicate the conditions under which these thresholds will be exceeded.

Ensonified Area

Here, we describe operational and environmental parameters of the activity that are used in estimating the area ensonified above the acoustic thresholds, including source levels and transmission loss coefficient.

The sound field in the project area is the existing background noise plus additional construction noise from the proposed project. Marine mammals are expected to be affected by sound generated from the impact and vibratory pile driving components of this project.

In order to calculate distances to the Level A harassment and Level B harassment thresholds for the methods and piles being used in these projects, NMFS used acoustic monitoring data from previous pile driving at the Bainbridge Island Ferry Terminal (impact installation of 24-in and 30-in steel piles), Edmonds Ferry Terminal (vibratory pile driving of a 30-in steel piles), and data from NMFS National Source-Level Dataset to develop source levels for the various pile types, sizes, and methods for the project (table 5). A source level for vibratory driving of 18-in steel piles was taken from a 2017 project in Elliot Bay. Each of the projects listed above occurred within the Puget Sound and provided the most suitable source levels due to similar physical habitat characteristics, pile sizes, and pile driving or removal methods.

TABLE 5—KINGSTON FERRY TERMINAL SPAN PROXY SOUND SOURCE LEVELS FOR PILE SIZES AND DRIVING METHODS

Pile type and size (in)	Method	Source level at 10m (dB re 1 µPA)	Reference
18-inch Concrete	Vibratory	149 dB rms	Elliott Bay (2017).
24-inch Steel Sheet Pile	Vibratory	160 dB rms	NMFS (2022).
24 & 30-inch Steel	Vibratory	166 dB rms	Laughlin (2011).
24-inch Steel	Impact	192.8 dB rms; 180 dB SEL; 207.5 dB Peak	Bainbridge (2005); Friday Harbor (2005); SR520 (2010).
30-inch Steel	Impact	192.5 dB rms; 182.9 dB SEL; 212.5 dB Peak	Vashon (2010); Friday Harbor (2005); SR520 (2010).

Level B Harassment Zones

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

TL = B * Log10 (R1/R2)

Where:

TL = transmission loss in dB
B = transmission loss coefficient; for practical spreading equals 15
R1 = the distance of the modeled SPL from the driven pile, and
R2 = the distance from the driven pile of the initial measurement

The recommended TL coefficient for most nearshore environments is the practical spreading value of 15. This value results in an expected propagation environment that would lie between spherical and cylindrical spreading loss conditions, which is the most appropriate assumption for the WSDOTs proposed activities in the absence of specific modeling. The estimated Level B harassment zones for the WSDOTs proposed activities are shown in table 6.

Level A Harassment Zones

The ensonified area associated with Level A harassment is more technically challenging to predict due to the need to account for a duration component. Therefore, NMFS developed an optional User Spreadsheet tool to accompany the 2024 Updated Technical Guidance that can be used to relatively simply predict an isopleth distance for use in conjunction with marine mammal density or occurrence to help predict potential takes. We note that because of some of the assumptions included in the methods underlying this optional tool, we anticipate that the resulting isopleth estimates are typically going to be overestimates of some degree, which may result in an overestimate of potential take by Level A harassment. However, this optional tool offers the best way to estimate isopleth distances when more sophisticated modeling methods are not available or practical. For stationary sources such as pile installation and removal, 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 auditory injury. Inputs used in the optional User Spreadsheet tool, and the resulting estimated isopleths, are reported below.

TABLE 6—LEVEL A AND B HARASSMENT ZONES

[NMFS 2024]

Pile size, type & method	Level A injury zone (m)					Level B harassment zone (m)
	LF cetacean	HF cetacean	VHF cetacean	Phocid	Otariid	
18-inch concrete vibratory	3.7	1.4	3.0	4.7	1.6	858
24-inch sheet pile vibratory	19.9	7.7	16.3	25.7	8.6	4,642
24 & 30-inch steel vibratory	50.1	19.2	40.9	64.4	21.7	11,659
24-inch steel Impact [1]	1,253.1	159.9	1,939.2	1,113,2	415.0	1,537
30-inch steel Impact [1]	1,196.7	152.7	1,852	1,063.1	396.3	1,467.8

[1] These values were calculated with source levels in table 5 above. The application has incorrect source levels in Table 1–1–3 of the application.

Marine Mammal Occurrence and Take Estimation Calculation

In this section we provide information about the occurrence of marine mammals, including density or other relevant information which will inform the take calculations. Additionally, we describe how the occurrence information is synthesized to produce a quantitative estimate of the take that is reasonably likely to occur and proposed for authorization. Available information regarding marine mammal occurrence in the vicinity of the project area includes site-specific and nearby survey information from WSDOT. Specifically, data sources consulted included PSO monitoring completed on 175 days between 2015 and 2021, primarily during the multi-year WSDOT Multimodal Construction Project, but also including a small amount of monitoring conducted during the Edmonds Ferry Terminal Dolphin Replacement Project. During the 169 days of Mukilteo monitoring, PSOs were located at the Mukilteo project site as well as on the Mukilteo—Clinton ferry and additional positions on Whidbey Island, Camano Island, and north of Everett, Washington.

To estimate take by Level B and Level A harassment, NMFS and WSDOT referred to the data reported at all PSO monitoring locations. For take by Level B harassment, WSDOT and NMFS predicted a daily occurrence probability in which the average daily occurrence for each species is multiplied by the number of days of each type of pile driving activity, generally using the following equation: Take by Level B harassment = marine mammal occurrence × days of pile driving activities.

However, WSDOT generated different daily average marine mammal occurrence rates based on the size of the Level B harassment zone for impact pile driving and vibratory pile driving. Since impact and vibratory pile driving could occur on any construction day, NMFS finds it more appropriate to use the marine mammal occurrence estimated within the largest Level B harassment zone across all activities to estimate take by Level B harassment.

In cases where marine mammals are expected to occasionally occur within the project area (*e.g.,* harbor porpoise or transient killer whale), NMFS and WSDOT define marine mammal occurrence by one group of the average (harbor porpoise) or maximum (transient killer whale) group size for that species. In cases where marine mammals are expected to occur frequently in the project area, marine mammal occurrence is defined by the daily average occurrence of marine mammals documented by PSOs within the largest Level B harassment zones.

Finally, WSDOT rounded daily average occurrence of less than 1 up to 1. However, in such cases where species are unlikely to occur in the project area, but for which there is some potential, NMFS proposes that one group of each species may occur in the project area during each project year rather than each construction day (*i.e.,* low-frequency cetaceans and Dall's porpoise).

For take by Level A harassment, WSDOT attempted to estimate the occurrence of marine mammals occurring within the largest Level A harassment zone across all hearing groups. However, WSDOT referred to data reported at all PSO monitoring locations during the Mukilteo Multimodal Project. Because the distance of the marine mammal to the PSO was reported rather than the source, NMFS instead refers to marine mammal data reported from the Mukilteo Ferry Terminal location only, as it is reasonable to assume the distance of the marine mammal to the PSO reported at that location would be near the source. NMFS also reviewed the data to estimate marine mammal occurrence according to the largest Level A harassment zone of each species' respective hearing group, rather than the largest Level A harassment zone across all hearing groups.

TABLE 7—EDMONDS AND MUKILTEO MARINE MAMMAL MONITORING DATA

Species	Sightings total	Average sightings/ day (175 days)	Maximum one-day sightings	Take requested
Harbor Seal	3,557	20.33	98	Yes.
Northern Elephant Seal	2	0.012	2	Yes.
California Sea Lion	2,055	11.7	114	Yes.
Steller Sea Lion	48	0.27	6	Yes.
Unidentified pinniped	15	N/A	N/A	N/A.
Killer Whale Transient	44	0.26	15	Yes.

TABLE 7—EDMONDS AND MUKILTEO MARINE MAMMAL MONITORING DATA—Continued

Species	Sightings total	Average sightings/ day (175 days)	Maximum one-day sightings	Take requested
Gray Whale	2	0.012	1	Yes.
Minke Whale	0	N/A	N/A	Yes.
Unidentified whale	1	N/A	N/A	N/A.
Harbor Porpoise	210	1.2	18	Yes.
Dall's Porpoise	3	0.017	2	Yes.
Pacific White-sided Dolphin	0	N/A	N/A	Yes.
Long-beaked Common Dolphin	0	N/A	N/A	Yes.
Unidentified dolphin/porpoise	1	N/A	N/A	N/A.

Here we describe how the information provided above is synthesized to produce a quantitative estimate of the take that is reasonably likely to occur and proposed for authorization.

Harbor Seal—Harbor seals are common in the project area. During the Edmonds and Mukilteo Projects, WSDOT recorded an average of 20.33 harbor seal detections per day and a maximum of 98 in a single day (WSDOT 2024). WSDOT estimated that an average of 20.33 harbor seals will enter the Level B harassment zones each of the 85 days of construction. To account for the potential for Level A and Level B harassment, NMFS proposes to calculate expected take for vibratory pile driving days (54) and impact pile driving days (31) separately. For vibratory pile driving days, all take is expected to occur by Level B harassment. Thus, average sightings per day was multiplied by 54, which equates to 1,098 takes by Level B harassment. Average sightings per day was also used to calculate total expected take (Level A and Level B) for impact pile driving days. However, NMFS proposes to assume that two of every three harbor seals would be taken by Level A harassment due to the relative size of the estimated Level A and Level B harassment zones for impact pile driving. During impact pile driving, 420 takes are therefore expected to occur by Level A harassment and 210 by Level B harassment. Therefore, NMFS proposes to authorize a total of 1,308 takes by Level B harassment and 420 takes by Level A harassment for harbor seals.

Northern Elephant Seal—Elephant seals are rare in the project area. During the Edmonds and Mukilteo Projects, WSDOT recorded only two sightings (WSDOT 2024). However, if an elephant seal were present, it is possible that it may remain in the area for an extended duration. Therefore, NMFS assumes that one elephant seal could be present and remain in the project area for 30 days. We propose to authorize 30 takes of northern elephant seal, by Level B harassment. Given the anticipated rarity of occurrence for elephant seals, WSDOT does not expect northern elephant seals to enter Level A harassment zones without being detected prior to shutdown measures being implemented. Construction would cease if a northern elephant seal was observed entering the Level A harassment zone. Therefore, no take by Level A harassment of northern elephant seals is anticipated or proposed to be authorized.

California Sea Lion—California sea lions have been known to use a haulout near the project site. During the Edmonds and Mukilteo Projects, WSDOT recorded an average of 11.7 sea lion detections per day and a maximum of 114 in a single day (WSDOT 2024). WSDOT estimated that an average of 11.7 sea lions will enter the Level B harassment zones for each of the 85 days of construction. To account for the potential for Level A and Level B harassment, NMFS proposes to calculate expected take for vibratory pile driving days (54) and impact pile driving days (31) separately. For vibratory pile driving days, all take is expected to occur by Level B harassment. Thus, average sightings per day was multiplied by 54, which equates to 632 takes by Level B harassment. Similarly, average sightings per day was also used to calculate total expected take (Level A and Level B) for impact pile driving days. However, NMFS proposes to assume that one of every four California sea lions would be taken by Level A harassment due to the relative size of the estimated Level A and Level B harassment zones for impact driving. During impact pile driving, 91 takes of California sea lions are expected to occur by Level A harassment and 272 by Level B harassment. Therefore, NMFS proposes to authorize a total of 904 takes by Level B harassment and 91 takes by Level A harassment for California sea lions.

Steller Sea Lion—Steller sea lions have not been documented to use haulout sites within the project area, and are relatively rare. During the Edmonds and Mukilteo Projects, WSDOT recorded an average of 0.27 Steller sea lion detections per day and a maximum of 6 in a single day (WSDOT 2024). WSDOT estimated that 0.27 Steller sea lions could enter the Level B harassment zones for each of the 85 days of construction. To account for the potential for Level A and Level B harassment, NMFS proposes to calculate expected take for vibratory pile driving days (54) and impact pile driving days (31) separately. For vibratory pile driving days, all take is expected to occur by Level B harassment. Thus, average sightings per day was multiplied by the number of pile driving days (54) and rounded up for total of 20 takes by Level B harassment. However, NMFS proposes to assume that one of every four Steller sea lions would be taken by Level A harassment due to the relative size of the estimated Level A and Level B harassment zones for impact driving. During impact pile driving, 3 takes of Steller sea lions is expected to occur by Level A harassment and 7 by Level B harassment. Therefore, NMFS proposes to authorize a total of 27 takes by Level B harassment and 3 takes by Level A harassment for Steller sea lions.

Transient Killer Whale—During the Edmonds and Mukilteo Projects, WSDOT recorded 44 sightings of transient killer whales (WSDOT 2024). Based on this record of sightings, NMFS assumes that groups of transient killer whales may occur periodically in the project area during the 85-day project duration. To estimate the number of takes by Level B harassment, NMFS assumes that a group of transient killer whales (average group size assumed to be 8) may occur in the project area twice during the duration, and would be present on each occasion for 6 days. Therefore, NMFS proposes to authorize 96 takes of transient killer whale by Level B harassment (2 groups $\times$ 8 whales $\times$ 6 days). Given the visibility of killer

whales and extensive reporting and monitoring of this species, WSDOT would be able to cease pile driving before killer whales could enter the Level A harassment zone. No take of killer whales by Level A harassment is requested or proposed to be authorized.

Gray Whale—During the Edmonds and Mukilteo Projects, WSDOT recorded only two gray whale sightings (WSDOT 2024). Therefore, to account for the possibility that this species could occur within the project area, NMFS proposes to authorize two takes by Level B harassment of gray whale. In consideration of the infrequent occurrence of gray whales in the project areas, the proposed mitigation and monitoring measures that WSDOT would be required to comply with, including marine mammal monitoring and coordination with Orca Network that would alert WSDOT to the presence of large whales in the project area (see Proposed Mitigation), and given the size and visibility of gray whales, WSDOT would be able to detect gray whales and stop work before gray whales could enter the Level A harassment zones. Therefore, it is unlikely that any gray whales would be taken by Level A harassment. No take of gray whales by Level A harassment is requested or proposed to be authorized.

Minke Whale—During the Edmonds and Mukilteo Projects, WSDOT recorded no minke whale sightings during either project (WSDOT 2024). However, we assume that it is possible for minke whales to occur in the project area, as the species is known to occur in Puget Sound. Given the project duration (85 days), NMFS proposes to authorize two takes of minke whales by Level B harassment. Due to the infrequent occurrence of minke whales in the project areas, the proposed mitigation and monitoring measures that WSDOT would be required to comply with, including marine mammal monitoring and coordination with Orca Network (see Proposed Mitigation), and given the size and visibility of minke whales, WSDOT would be able to detect minke whales and stop work before minke whales could enter the Level A harassment zones. Therefore, it is unlikely that any minke whales would be taken by Level A harassment. No take of minke whales by Level A harassment is requested or proposed to be authorized.

Harbor Porpoise—During the Edmonds and Mukilteo Projects, WSDOT recorded an average of 1.2 sightings per day with a maximum of 18 in one day (WSDOT 2024). WSDOT estimated that an average of 1.2 harbor porpoises will enter the Level B harassment zones for each of the 85 days of construction. To account for the potential for Level A and Level B harassment, NMFS proposes to calculate expected take for vibratory pile driving days (54) and impact pile driving days (31) separately. For vibratory pile driving days, all take is expected to occur by Level B harassment. The average sightings per day was multiplied by the number of pile driving days (54) for a total of 65 takes by Level B harassment. For all impact pile driving, Level A harassment zones are larger than Level B harassment zones. In this scenario, NMFS assumes that all take of harbor porpoises would occur by Level A harassment. Thus, average sighting of harbor porpoises per day was multiplied by impact pile driving days (31), which equates to 38 takes by Level A harassment. Therefore, NMFS proposes to authorize 65 takes by Level B harassment and 38 takes by Level A harassment for harbor porpoise.

Dall's Porpoise—During the Edmonds and Mukilteo Projects, WSDOT recorded three sightings of Dall's porpoise, with a maximum of two in a single day (WSDOT 2024). Therefore, and in consideration of the infrequent occurrence of Dall's porpoise in the project areas, NMFS proposes to authorize up to two takes of Dall's porpoise over the project duration. Given the large size of the estimated Level A harassment zones for VHF cetaceans for certain activities, we assume that these two takes could be by Level A harassment and propose to authorize them as such.

Common Bottlenose Dolphin—There were no bottlenose dolphins detected during the Edmonds and Mukilteo Projects (WSDOT 2024). Due to the rarity of this species in Puget Sound, it is estimated that potentially 1 group could pass through the project area with an average group size of 10, and we propose to authorize 10 takes by Level B harassment. No take of bottlenose dolphins by Level A harassment is requested or proposed to be authorized.

Pacific White-Sided Dolphin—There were no white-sided dolphins detected during the Edmonds and Mukilteo Projects (WSDOT 2024). Due to the rarity of this species in Puget Sound, it is estimated that potentially one group could pass through the project area with an average group size of 10, and we propose to authorize 10 takes by Level B harassment. No take of white-sided dolphins by Level A harassment is requested or proposed to be authorized.

Long-Beaked Common Dolphin—There were no long-beaked common dolphins detected during the Edmonds and Mukilteo Projects (WSDOT 2024). Due to the rarity of this species in Puget Sound, it is estimated that potentially one group could pass through the project area with an average group size of 10, and we propose to authorize 10 takes by Level B harassment. No take of long-beaked common dolphins by Level A harassment is requested or proposed to be authorized.

TABLE 8—PROPOSED TAKE OF MARINE MAMMALS BY LEVEL A AND LEVEL B HARASSMENT AND PERCENT OF EACH STOCK EXPECTED TO BE TAKEN

Common name	Scientific name	Stock	Level A harassment	Level B harassment	Total	SAR abundance	Percentage of population
Pacific Harbor Seal	*Phoca vitulina*	Washington Inland Southern Puget Sound.	420	1,308	1,728	2,529	68.32
Northern Elephant Seal	*Mirounga angustirostris*	CA Breeding	0	85	85	187,386	0.05
California Sea Lion	*Zalophus californianus*	U.S	91	904	995	257,606	0.39
Steller Sea Lion	*Eumetopias jubatus*	Eastern	3	27	30	36,308	0.08
Killer Whale Transient	*Orcinus orca*	West Coast Transient	0	96	96	349	27.5
Gray Whale	*Eschrichtius robustus*	Eastern N Pacific	0	2	2	26,960	0.007
Minke Whale	*Balaenoptera acutorostrata.*	CA/OR/WA	0	2	2	915	0.21
Harbor Porpoise	*Phocoena phocoena*	Washington Inland Waters.	38	65	103	11,233	0.92
Dall's Porpoise	*Phocoenoides dalli*	CA/OR/WA	2	0	2	16,498	0.01
Common Bottlenose Dolphin.	*Tursiops truncatus*	CA/OR/WA Offshore	0	10	10	3,477	0.29
Pacific White-Sided Dolphin.	*Lagenorhynchus obliquidens.*	CA/OR/WA	0	10	10	34,999	0.03

TABLE 8—PROPOSED TAKE OF MARINE MAMMALS BY LEVEL A AND LEVEL B HARASSMENT AND PERCENT OF EACH STOCK EXPECTED TO BE TAKEN—Continued

Common name	Scientific name	Stock	Level A harassment	Level B harassment	Total	SAR abundance	Percentage of population
Long-Beaked Common Dolphin.	*Delphinus delphis bairdii*	CA	0	10	10	83,379	0.01

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. NMFS regulations require applicants for incidental take authorizations to include information about the availability and feasibility (economic and technological) of equipment, methods, and manner of conducting the activity or other means of effecting the least practicable adverse impact upon the affected species or stocks, and their habitat (50 CFR 216.104(a)(11)).

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

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

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

Shutdown Zone

Before the commencement of in-water construction activities, WSDOT would establish shutdown zones for all 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 mammal (or in anticipation of an animal entering the defined area). Pile driving would also not commence until all marine mammals are clear of their respective shutdown zones. Shutdown zones are established in consideration of the Level A harassment zones and therefore typically vary based on the activity type and marine mammal hearing group (table 9). At minimum, the shutdown zone for all hearing groups and all activities would be 10 m. For in-water heavy machinery work other than pile driving (*e.g.,* standard barges, *etc.*), if a marine mammal comes within 10 m, operations would cease and vessels would reduce speed to the minimum level required to maintain steerage and safe working conditions. This type of work could include, for example, the movement of the barge to the pile location or positioning of the pile on the substrate via a crane.

WSDOT would also establish shutdown zones for all marine mammals for which take has not been authorized or for which incidental take has been authorized but the authorized number of takes has been met. These zones are equivalent to the Level B harassment zones for each activity (table 9).

WSDOT would also implement shutdown measures for Southern Resident killer whales and humpback whales. If Southern Resident killer whales or humpback whales are sighted within the vicinity of the project areas and are approaching the Level B harassment zone (table 9), WSDOT would shut down the pile driving equipment to avoid possible take of these species. If a killer whale approaches the Level B harassment zone during pile driving, and it is unknown whether it is a Southern Resident killer whale or a transient killer whale, it would be assumed to be a Southern Resident killer whale and WSDOT would implement the shutdown measure.

If a Southern Resident killer whale, unidentified killer whale, or humpback whale enters the Level B harassment zone undetected, in-water pile driving would be suspended until the whale exits the Level B harassment zone, or 15 minutes have elapsed with no sighting of the animal.

TABLE 9—SHUTDOWN ZONES FOR KINGSTON FERRY TERMINAL

[NMFS 2024]

Pile size, type & method	Shutdown zones (m)					
	LF cetacean	HF cetacean	VHF cetacean	Phocid	Otariid	SRKW/ Humpback
18-inch concrete vibratory	10	10	10	10	10	858
24-inch sheet pile vibratory	26	26	26	26	26	4,642
24 & 30-inch steel vibratory	65	65	65	65	65	11,659
24-inch steel impact	1,255	160	400	65	65	1,537
30-inch steel impact	1,200	160	400	65	65	1,467.8

Protected Species Observers

The placement of protected species observers (PSOs) during all pile driving activities (described in the Proposed Monitoring and Reporting section) would ensure that the entire shutdown zone is visible. Should environmental conditions deteriorate such that the entire shutdown zone would not be visible (*e.g.,* fog, heavy rain), pile driving would be delayed until the PSO is confident marine mammals within the shutdown zone could be detected.

Monitoring for Level A and Level B Harassment

PSOs would monitor the Level B harassment zones to the extent practicable, and all of the Level A harassment zones. Monitoring zones provide utility for observing by establishing monitoring protocols for areas adjacent to the shutdown zones. Monitoring zones enable observers to be aware of and communicate the presence of marine mammals in the project areas outside the shutdown zones and thus prepare for a potential cessation of activity should the animal enter the shutdown zone.

Pre-Activity Monitoring

Prior to the start of daily in-water construction activities, or whenever a break in pile driving of 30 minutes or longer occurs, PSOs would observe shutdown and monitoring zones for a 30 minute period. The shutdown zone would be considered cleared when a marine mammal has not been observed within the zone for that 30-minute period. If pile driving is delayed or halted due to the presence of a marine mammal, the activities would not commence or resume until either the animal has voluntarily exited and been visually confirmed beyond the shutdown zones or 15 minutes have passed without re-detection of the animal. When a marine mammal for which Level B harassment take is authorized is present in the Level B harassment zone and authorized take has not been met, activities may begin. 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).

Coordination With Local Marine Mammal Research Network

Prior to the start of pile driving for the day, the PSOs would contact the Orca Network to find out the location of the nearest marine mammal sightings. The Local Marine Mammal Research Network consists of a list of over 600 (and growing) residents, scientists, and government agency personnel in the United States and Canada. Sightings are called or emailed into the Orca Network and immediately distributed to other sighting networks including: the NMFS Northwest Fisheries Science Center, the Center for Whale Research, Cascadia Research, the Whale Museum Hotline, and the British Columbia Sightings Network.

Sightings information collected by the Orca Network includes detection by hydrophone. The SeaSound Remote Sensing Network is a system of interconnected hydrophones installed in the marine environment of Haro Strait (west side of San Juan Island) to study orca communication, in-water noise, bottom fish ecology, and local climatic conditions. A hydrophone at the Port Townsend Marine Science Center measures average in-water sound levels and automatically detects unusual sounds. These passive acoustic devices allow researchers to hear when different marine mammals come into the region. This acoustic network, combined with the volunteer visual sighting network allows researchers to document the presence and location of various marine mammal species.

Soft Start

Soft-start procedures are used to provide additional protection to marine mammals by providing warning and/or giving marine mammals a chance to leave the area prior to the hammer operating at full capacity. For impact pile driving, contractors would be required to provide an initial set of three strikes from the hammer at reduced energy, followed by a 30-second waiting period, then two subsequent reduced-energy strike sets. Soft start would 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.

Bubble Curtain

A bubble curtain would be employed during impact installation or proofing of steel piles, unless the piles are driven in the dry, or water is less than 3 ft (0.9 m) in depth. A noise attenuation device would not be required during vibratory pile driving. If a bubble curtain or similar measure is used, it would distribute air bubbles around 100 percent of the piling perimeter for the full depth of the water column. Any other attenuation measure would be required to provide 100 percent coverage in the water column for the full depth of the pile. The lowest bubble ring would be in contact with the mudline for the full circumference of the ring. The weights attached to the bottom ring would ensure 100 percent mudline contact. No parts of the ring or other objects would prevent full mudline contact.

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 during pile driving activities would be conducted by PSOs meeting NMFS' standards and 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 would 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
- Where a team of three or more PSOs is required, a lead observer or monitoring coordinator would be designated. The lead observer would be required to have prior experience working as a marine mammal observer during construction.
- PSOs must be approved by NMFS prior to beginning any activities subject to this IHA.

PSOs should 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.

During all pile driving activities, a minimum of three PSOs will monitor Level B harassment and shutdown zones. A total of six PSOs will monitor the Level B harassment and shutdown zones during the vibratory pile driving of 24 and 30-inch steel piles and be stationed at the Kingston terminal (2), the Edmonds terminal (1), on the ferry (1), Richmond beach (1), and Stamm overlook (1). During 24-inch sheet pile driving, there will be a total of four PSOs monitoring the Level B harassment and shutdown zones and they will be located at the Kingston terminal (2), Overlook park (1), and on the ferry (1). For 30-inch steel impact, 18-inch concrete vibratory, and 24-inch steel impact there will be three PSOs monitoring the Level B harassment and shutdown zones and they will be located at the Kingston terminal (2) and at Overlook Park (1).

Monitoring would be conducted 30 minutes before, during, and 30 minutes after all in water construction activities. In addition, observers would record all incidents of marine mammal occurrence, regardless of distance from activity, and would document any behavioral reactions in concert with distance from piles being driven or removed. Pile driving 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.

Reporting

A draft marine mammal monitoring report would be submitted to NMFS within 90 days after the completion of pile driving activities, or 60 days prior to a requested date of issuance of any future IHAs for the project, or other projects at the same location, whichever comes first. The marine mammal report would include an overall description of work completed, a narrative regarding marine mammal sightings, and associated PSO data sheets. Specifically, the report would include:

- Dates and times (begin and end) of all marine mammal monitoring;
- Construction activities occurring during each daily observation period, including: (a) How many and what type of piles were driven or removed and the method (*i.e.,* impact or vibratory); and (b) the total duration of time for each pile (vibratory driving) number of strikes for each pile (impact driving);
- PSO locations during marine mammal monitoring; and
- 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.

For each observation of a marine mammal, the following would be reported:

- Name of PSO who sighted the animal(s) and PSO location and activity at time of sighting;
- Time of sighting;
- Identification of the animal(s) (*e.g.,* genus/species, lowest possible taxonomic level, or unidentified), PSO confidence in identification, and the composition of the group if there is a mix of species;
- Distance and location of each observed marine mammal relative to the pile being driven or hole being drilled for each sighting;
- Estimated number of animals (min/max/best estimate);
- Estimated number of animals by cohort (adults, juveniles, neonates, group composition, *etc.*);
- 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; and
- Detailed information about implementation of any mitigation (*e.g.,* shutdowns and delays), a description of specified 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 reports would constitute the final reports. If comments are received, a final report addressing NMFS' comments would be required to be submitted within 30 days after receipt of comments. All PSO datasheets and/or raw sighting data would be submitted with the draft marine mammal report.

In the event that personnel involved in the construction activities discover an injured or dead marine mammal, WSDOT would report the incident to the Office of Protected Resources (OPR) (*PR.ITP.MonitoringReports@noaa.gov*), NMFS and to the West Coast Region (WCR) regional stranding coordinator as soon as feasible. If the death or injury was clearly caused by the specified activity, WSDOT would 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 IHAs. WSDOT would not resume their activities until notified by NMFS.

The report would include the following information:

1. Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);

2. Species identification (if known) or description of the animal(s) involved;
3. Condition of the animal(s) (including carcass condition if the animal is dead);
4. Observed behaviors of the animal(s), if alive;
5. If available, photographs or video footage of the animal(s); and
6. 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 majority of our analysis applies to all the species listed in table 2, given that the anticipated effects of these projects on different marine mammal stocks are expected to be relatively similar in nature. Where there are special circumstances for a species or stock (*e.g.,* gray whales), they are included as a separate subsection below.

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

Take by Level A harassment is proposed to be authorized for four species (harbor seals, harbor porpoise, California sea lions, and Steller sea lions) to account for the possibility that an animal could enter a Level A harassment zone prior to detection, and remain within that zone for a duration long enough to incur auditory injury. Any take by Level A harassment is expected to arise from, at most, a small degree of auditory injury, *i.e.,* minor degradation of hearing capabilities within regions of hearing that align most completely with the energy produced by impact pile driving (*i.e.,* the low-frequency region below 2 kilohertz (kHz)), not severe hearing impairment or impairment within the ranges of greatest hearing sensitivity. 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 auditory injury. Given the hearing ranges of these four (harbor seal, harbor porpoise, California sea lion, and Steller sea lion) species, auditory injury incurred at the low frequencies of pile driving noise would not interfere either with conspecific communication or echolocation, and therefore would not be expected to impact the survival or reproductive abilities of the affected individuals, let alone the stock or population.

As described above, NMFS expects that marine mammals would likely move away from an aversive stimulus, especially at levels that would be expected to result in auditory injury, given sufficient notice through use of soft start. WSDOT would also be required to shut down pile driving activities if marine mammals approach within hearing group-specific zones (see table 9), further minimizing the likelihood and degree of auditory injury that would be incurred. Even absent mitigation, no serious injury or mortality from construction activities is anticipated or proposed to be authorized.

Effects on individuals that are taken by Level B harassment in the form of behavioral disruption, on the basis of reports in the literature as well as monitoring from other similar activities, will likely be limited to reactions such as avoidance, increased swimming speeds, increased surfacing time, or decreased foraging (if such activity were occurring) (*e.g.,* Thorson and Reyff 2006). Most likely, individuals would simply move away from the sound source and temporarily avoid the area where pile driving is occurring. If sound produced by project activities is sufficiently disturbing, animals are likely to simply avoid the area while the activities are occurring, particularly as the project is located in a busy harbor with high amounts of vessel traffic, including large ferry boats. We expect that any avoidance of the project areas by marine mammals would be temporary in nature and that any marine mammals that avoid the project areas during construction would not be permanently displaced. Short-term avoidance of the project areas and energetic impacts of interrupted foraging or other important behaviors is unlikely to affect the reproduction or survival of individual marine mammals, and the effects of behavioral disturbance on individuals is not likely to accrue in a manner that would affect the rates of recruitment or survival of any affected stock.

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. However, since the hearing sensitivity of individuals that incur TTS is expected to recover completely within minutes to hours, it is unlikely that the brief hearing impairment would affect the individual's long-term ability to forage and communicate with conspecifics, and would therefore not likely impact reproduction or survival of any individual marine mammal, let alone adversely affect rates of recruitment or survival of the species or stock.

This project is also not expected to have significant adverse effects on affected marine mammals' habitats. The project activities will not modify existing marine mammal habitat for a significant amount of time. The activities may cause some fish to leave the area of disturbance, thus temporarily 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 (with no known particular importance to marine mammals), the impacts to marine mammal habitat are not expected to cause significant or long-term negative consequences. Aside from the BIA for gray whales described below, there are

no known areas of importance for other marine mammals, such as feeding or pupping areas, in the project area.

For all species and stocks, take would occur within a limited, relatively confined area (Puget Sound) of the stocks' ranges. Given the availability of suitable habitat nearby, any displacement of marine mammals from the project areas is not expected to affect marine mammals' fitness, survival, and reproduction due to the limited geographic area that will be affected in comparison to the much larger habitat for marine mammals in Puget Sound. Level A harassment and Level B harassment will be reduced to the level of least practicable adverse impact to the marine mammal species or stocks and their habitat through use of mitigation measures described herein. Some individual marine mammals in the project areas may be present and be subject to repeated exposure to sound from pile driving on multiple days. However, these individuals would likely return to normal behavior during gaps in pile driving activity. Puget Sound is a busy area and monitoring reports from previous in-water pile driving activities along the nearby such as the Edmonds and Mukilteo Projects (WSDOT 2024) indicate that marine mammals continue to remain in the greater project area throughout pile driving activities. Therefore, any behavioral effects of repeated or long duration exposures are not expected to negatively affect survival or reproductive success of any individuals. Thus, even repeated Level B harassment of some small subset of an overall stock is unlikely to result in any effects on rates of reproduction and survival of the stock.

Gray Whales

The Puget Sound is part of a BIA for gray whales as they migrate between the Arctic and Mexico (Calambokidis *et al.,* 2024). Although the proposed project area is located within the Puget Sound, the gray whale BIA does not overlap with the ensonified zones and gray whales typically remain further north around Whidbey and Camano Islands (Calambokidis *et al.,* 2024). Gray whales are also rarely seen in the project area. This suggests that impacts from the project would have minimal to no impact on the migration of gray whales in the BIA, and would therefore not affect reproduction or survival.

There was a UME for gray whales from 2018 through 2023 (see the Description of Marine Mammals in the Area of Specified Activities section of this notice). However, we do not expect the takes proposed to be authorized for this project to have any additional effects to reproduction or survival. As mentioned previously, no take by Level A harassment, serious injury or mortality is expected. Takes proposed to be authorized by Level B harassment of gray whales would primarily be in the form of behavioral disturbance. The results from necropsies showed evidence that gray whale nutritional condition was poor during the UME. The area that would be temporarily impacted from construction does not overlap with the gray whale feeding BIA in the northern Puget Sound. Therefore, the construction associated with the WSF Kingston Ferry Terminal Project is unlikely to disrupt any critical behaviors (*e.g.,* feeding) or have any effect on reproduction or survival of gray whales.

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;
- Level A harassment is not anticipated or proposed to be authorized for 8 of the 12 species. For the other four species, Level A harassment would be in the form of a slight degree of auditory injury;
- Level B harassment would be in the form of behavioral disturbance, primarily resulting in avoidance of the project areas around where impact or vibratory pile driving is occurring, and some low-level TTS that may limit the detection of acoustic cues for relatively brief amounts of time in relatively confined footprint of the activities;
- Nearby areas of similar habitat value within Puget Sound are available for marine mammals that may temporarily vacate the project areas during construction activities for both projects;
- Effects on species that serve as prey for marine mammals from the activities are expected to be short-term and, therefore, any associated impacts on marine mammal feeding are not expected to result in significant or long-term consequences for individuals, or to accrue to adverse impacts on their populations from either project;
- The number of anticipated takes by Level B harassment is relatively low for all stocks for both projects;
- The ensonified areas from the project is very small relative to the overall habitat ranges of all species and stocks, and will not adversely affect ESA-designated critical habitat, or cause more than minor impacts in any BIAs or any other areas of known biological importance;
- The lack of anticipated significant or long-term negative effects to marine mammal habitat from the project;
- The efficacy of the mitigation measures in reducing the effects of the specified activities on all species and stocks for the project; and
- Monitoring reports from similar work in Puget Sound that have documented little to no effect on individuals of the same species that could be impacted by the specified activities from the project.

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. For all species and stocks other than harbor seals from the Washington Inland Southern Puget Sound stock, the proposed take is below one-third of the stock abundance. The proposed take of harbor seal as a proportion of the stock abundance is greater than one-third, if all takes are assumed to occur for different individuals. The project area represents a small portion of the Stock's range in the Puget Sound (Pearson *et al.,* 2024). The distribution of sightings from Pearson *et al.* 2024 support that it is reasonable to suspect that the same individual harbor seals would be present within the ensonified project are during the relatively short duration (85 days) of the proposed activities. Since

the construction area represents a small portion of harbor seals range and the construction would occur over a short period, it is more likely that there will be multiple takes of the same individuals during the proposed activities.

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 ESA of 1973 (16 U.S.C. 1531 *et seq.*) requires that each Federal agency ensure 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 WSDOT for conducting the Kingston Ferry Trestle Seismic Retrofit Project in Kingston, WA from July 2025 through the end of the in-water work period in February 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 Kingston Ferry Trestle Seismic Retrofit 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 of this notice is planned or (2) the activities as described in the Description of Proposed Activity section of this notice would not be completed by the time the IHA expires and a renewal would allow for completion of the activities beyond that described in the *Dates and Duration* section of this notice, provided all of the following conditions are met:

- A request for renewal is received no later than 60 days prior to the needed renewal IHA effective date (recognizing that 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 13, 2024.

Kimberly Damon-Randall,

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

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BILLING CODE 3510–22–P

COMMITTEE FOR PURCHASE FROM PEOPLE WHO ARE BLIND OR SEVERELY DISABLED

Procurement List; Proposed Additions

AGENCY: Committee for Purchase From People Who Are Blind or Severely Disabled.

ACTION: Proposed Additions to the Procurement List.

SUMMARY: The Committee is proposing to add service(s) to the Procurement List that will be furnished by nonprofit agencies employing persons who are blind or have other severe disabilities.

DATES: Comments must be received on or before: July 20, 2025.

ADDRESSES: Committee for Purchase From People Who Are Blind or Severely Disabled, 355 E Street SW, Suite 325, Washington, DC 20024.

FOR FURTHER INFORMATION CONTACT: For further information or to submit comments contact: Michael R. Jurkowski, Telephone: (703) 489–1322 or email *CMTEFedReg@AbilityOne.gov.*

SUPPLEMENTARY INFORMATION: This notice is published pursuant to 41 U.S.C. 8503(a)(2) and 41 CFR 51–2.3. Its purpose is to provide interested persons an opportunity to submit comments on the proposed actions.

Additions

In accordance with 41 CFR 51–5.3(b), the Committee intends to add this services requirement to the Procurement List as a mandatory purchase only for contracting activities and locations listed with the proposed qualified nonprofit agency as the authorized source of supply. Prior to adding the service to the Procurement List, the Committee will consider other pertinent information, including information from Government personnel and relevant comments from interested parties regarding the Committee's intent to geographically limit this services requirement. If the Committee approves the proposed additions, the entities of the Federal Government identified in this notice will be required to procure the service(s) listed below from nonprofit agencies employing persons who are blind or have other severe disabilities.

The following service(s) are proposed for addition to the Procurement List for