DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 217

[Docket No. 260804–0184]

RIN 0648–BO18

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to the Washington State Parks and Recreation Commission's Marine Facilities Replacement Program in North Puget Sound, Washington

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

ACTION: Proposed rule; request for comments.

SUMMARY: Pursuant to the Marine Mammal Protection Act (MMPA), NMFS has received a request from the Washington State Parks and Recreation Commission (State Parks) for authorization to take marine mammals incidental to the Marine Facilities Replacement Program (MFRP) in North Puget Sound in Western Washington (WA) over the course of 5 years from the date of effectiveness. NMFS is proposing incidental take regulations setting forth permissible methods of taking, other means of effecting the least practicable adverse impact on such marine mammal stocks (*i.e.,* mitigation measures), and requirements pertaining to monitoring and reporting such takes, and requests comments on the proposed regulations. NMFS will consider public comments before making any final decision on promulgating the requested MMPA regulations.

DATES: Comments and information must be received no later than September 10, 2026.

ADDRESSES: A plain language summary of this proposed rule is available at *https://www.regulations.gov/docket/NOAA-NMFS-2026-1255.* You may submit comments on this document, identified by NOAA–NMFS–2026–1255, by any of the following methods:

- E*lectronic Submission:* Submit all electronic public comments via the Federal e-Rulemaking Portal. Visit *https://www.regulations.gov* and type NOAA–NMFS–2026–1255 in the Search box. Click on the ''Comment'' icon, complete the required fields, and enter or attach your comments.
- *Mail:* Submit written comments to: Permits and Conservation Division, Office of Protected Resources, 1315 East-West Highway, Silver Spring, MD 20910.

Instructions: Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered by NMFS. All comments received are a part of the public record and will generally be posted for public viewing on *https://www.regulations.gov* without change. All personal identifying information (*e.g.,* name, address), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will accept anonymous comments (enter ''N/A'' in the required fields if you wish to remain anonymous).

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/action/incidental-take-authorization-washington-state-parks-and-recreation-commissions-marine.* In case of problems accessing these documents, please call the contact listed below.

FOR FURTHER INFORMATION CONTACT: Krista Graham, Office of Protected Resources, NMFS, (301) 427–8401.

SUPPLEMENTARY INFORMATION:

Purpose of Regulatory Action

These proposed regulations, promulgated under the authority of the MMPA (16 U.S.C. 1361 *et seq.*), would provide a framework for authorizing the take of marine mammals incidental to activities associated with State Parks' MFRP in North Puget Sound, WA.

NMFS received an application from State Parks requesting 5-year regulations and a Letter of Authorization (LOA) issued thereunder to take 10 species of marine mammals, by Level A and Level B harassment only, incidental to State Parks' MFRP activities. No serious injury or mortality is anticipated or proposed for authorization. Please see Background below for definitions of harassment.

The proposed regulations include mitigation, monitoring, and reporting requirements. These requirements, proposed by State Parks, are expected to minimize the number and/or intensity of incidents of marine mammal take, provide information to better understand the impacts of the action, and document compliance. State Parks has agreed that all the mitigation measures are practicable. As required by the MMPA, NMFS concurred that these measures are sufficient to achieve the least practicable adverse impact on the affected marine mammal species or stocks and their habitat.

Legal Authority for the Proposed Action

Section 101(a)(5)(A) of the MMPA (16 U.S.C. 1371(a)(5)(A)) directs the Secretary of Commerce to allow, upon request, the incidental, but not intentional taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region for up to 5 years if, after notice and public comment, the agency makes certain findings and promulgates regulations that set forth permissible methods of taking pursuant to that activity and other means of effecting the ''least practicable adverse impact'' on the affected species or stocks and their habitat (see the discussion below in the Proposed Mitigation section), as well as monitoring and reporting requirements. Section 101(a)(5)(A) of the MMPA and the implementing regulations at 50 CFR part 216, subpart I provide the legal basis for issuing this proposed rule containing 5-year regulations and for any subsequent LOAs.

Summary of Major Provisions Within the Proposed Rule

The following is a summary of the major provisions of this proposed rule regarding State Parks' MFRP activities. These measures include:

- Required monitoring of the construction areas to detect the presence of marine mammals before beginning construction activities;
- Establishment of shutdown zones;
- Bubble curtains required for impact driving of steel piles;
- Soft start for impact pile driving to allow marine mammals the opportunity to leave the area prior to beginning impact pile driving at full power; and
- Submittal of monitoring reports, including a summary of marine mammal species and behavioral observations, construction shutdowns or delays, and construction work completed.

Through adaptive management, the proposed regulations would allow NMFS to modify (*e.g.,* remove, revise, or add to) the existing mitigation, monitoring, or reporting measures summarized above and required by the LOA.

Background

The MMPA prohibits the ''take'' of marine mammals, with certain exceptions. Section 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) directs 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, regulations are promulgated, and public notice and an opportunity for public comment are provided.

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). If such findings are made, 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 (collectively referred to 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.,* promulgation of regulations and subsequent issuance of an LOA thereunder) with respect to potential impacts on the human environment.

This action is consistent with categories of activities identified in Categorical Exclusion B4 (Incidental Take Authorization (ITAs) 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 regulations and LOA qualifies to be categorically excluded from further NEPA review.

Summary of Request

On April 30, 2025, NMFS received an application from State Parks requesting authorization to take marine mammals incidental to the MFRP (*e.g.,* for the repair and improvement of six marine facilities in four State Parks within North Puget Sound, WA). Following NMFS' review of the application, State Parks submitted a revised application on July 25, 2025. Following additional communication with the applicant, NMFS was notified that State Parks was substantially modifying its application. State Parks submitted a revised application on March 23, 2026, that we deemed adequate and complete on March 24, 2026. We published a notice of receipt in the **Federal Register** on March 30, 2026 (91 FR 15597). No public comments were received.

The regulations under which we would issue the requested LOA would be valid for 5 years, from 2026 to 2031. State Parks plans to remove and/or replace timber support pilings with aluminum and steel structures at existing piles, floats, piers, and components at six marine facilities in four state parks. In-water construction work may incidentally expose 10 species of marine mammals (10 stocks) to elevated noise, resulting in take by Level A harassment and/or Level B harassment. Therefore, State Parks requests authorization to incidentally take 10 species (10 stocks) by Level A harassment and/or Level B harassment. Neither State Parks nor NMFS expect serious injury or mortality to result from these activities.

Description of Proposed Activity

Overview

State Parks is proposing construction activities that include pile driving (vibratory, impact, rock-socket drilling, and down-the-hole drilling (DTH)) and pile removal (pulling with a crane or, potentially, a vibratory extractor). Of these activities, only pile removal and installation are anticipated to result in take due to elevated underwater noise.

The purpose of the Washington State Parks MFRP is to remove and/or replace and improve six marine facilities at four State Parks. This includes Reid and Prevost Harbors at Stuart Island Marine State Park (MSP), Fossil Bay at Sucia Island MSP, Bowman Bay and Rosario Pier at Deception Pass State Park, and Olga Pier at Olga State Park. These proposed improvements would make the facilities more accessible to visitors while minimizing environmental impacts. This includes removing and/or replacing degraded and unsafe timber piles, piers, ramps, and float assemblages. Facilities to be replaced would have galvanized steel piles installed and aluminum components added (*e.g.,* platforms, walkways, a gangway, and floats).

Dates and Duration

State Parks anticipates that in-water construction activities associated with the MFRP would occur at each location within the annual in-water work windows established by the Washington Department of Fish and Wildlife to protect various fish species. Activities are planned to occur at Reid Harbor and Bowman Bay sometime between September 1, 2026, and February 15, 2027 (Year 1); at Prevost Harbor and Fossil Bay sometime between September 1, 2027, and February 15, 2028 (Year 2); at Rosario Pier sometime between August 1, 2028, and February 15, 2030 (Years 3 or 4); and finally, at Olga Pier sometime between September 1, 2030, and February 15, 2031 (Year 5) (see table 1). In-water construction delays may occur due to several factors, including project funding, permitting requirements, equipment and/or material availability, weather-related delays, equipment maintenance and/or repair, and other contingencies.

Specific Geographic Region

The MFRP activities are in bays and harbors around North Puget Sound, specifically in Reid Harbor and Prevost Harbor in Stuart Island MSP, Fossil Bay in Sucia Island MSP, Bowman Bay and Rosario Pier in Deception Pass State Park, and Olga Pier in Olga State Park. Each of these four state parks is situated within a group of islands known as the San Juan Islands and Deception Pass, located in San Juan, Skagit, and Island Counties in Western Washington (see figures 1 and 2 of this notice and figure 1 of the application).

BILLING CODE 3510–22–P

Figure 1 -- MFRP activities in the North Puget Sound, WA, project area are denoted by a circle

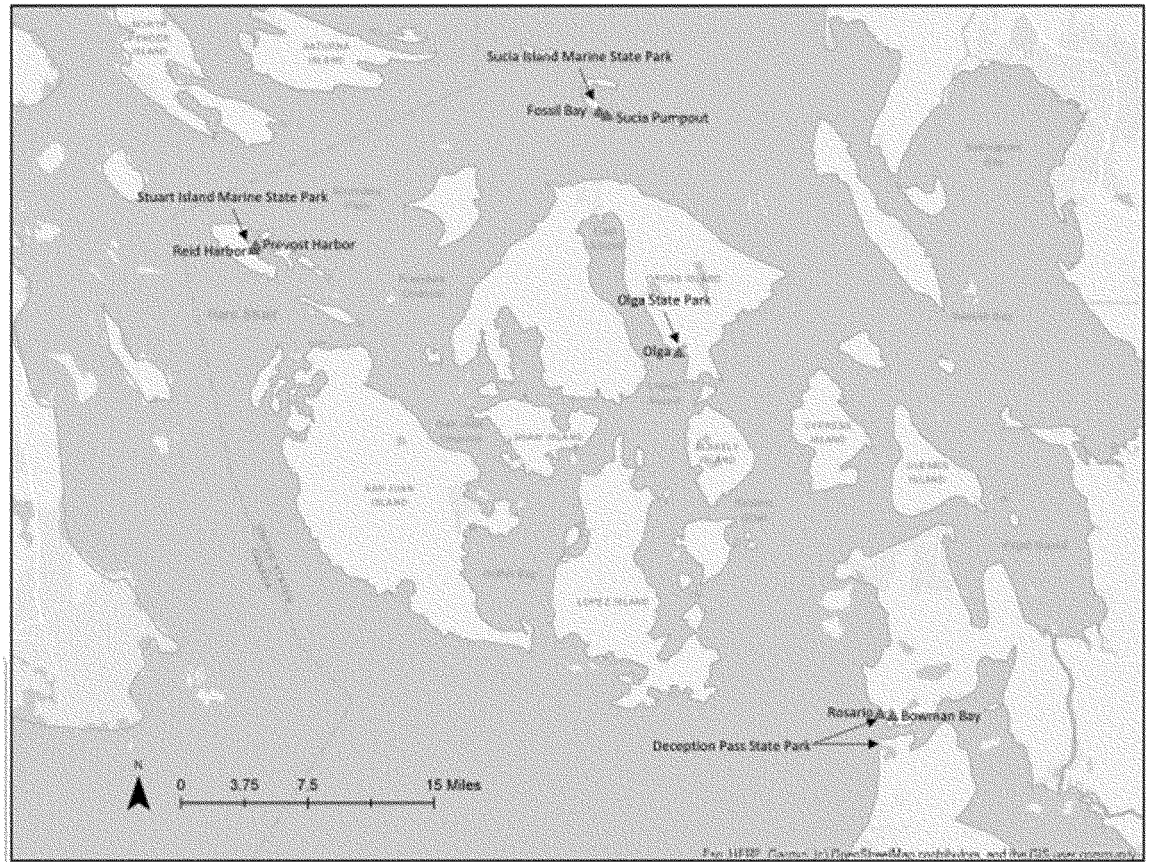

Figure 2 -- Zoomed in vicinity map of State Parks' project sites in North Puget Sound

BILLING CODE 3510–22–C

Detailed Description of the Specified Activity

Stuart Island MSP is a 433-acre marine camping park with 33,030 feet of shoreline, located within the San Juan Island cluster, just northwest of the other islands. Reid Harbor is located on the central-southern portion of Stuart Island, within a protected cove that faces south/southeast at the mouth of the harbor. State Parks proposes a few components for this project, including demolishing and replacing the existing timber moorage facility (piles, floats, pier, and components), removing and replacing one offshore island floating timber dock, and replacing the creosote-treated timber dolphins at the existing pumpout with galvanized steel piles. Work at Reid Harbor is estimated to take up to 30 days and would occur sometime between September 1, 2026, and February 15, 2027 (during Year 1).

Also within the Stuart Island MSP is Prevost Harbor, which is located on the northeast side of Stuart Island and contains a relatively open cove. State Parks proposes removing the existing timber moorage facility at Prevost Harbor and replacing it with new galvanized steel piles and aluminum structures (*i.e.,* platforms, walkways, a gangway, and floats), along with a concrete abutment. Work is estimated to take up to 30 days and would occur sometime between September 1, 2027, and February 15, 2028 (during Year 2).

The second marine park, Sucia Island MSP, is an 814-acre marine park with 77,700 feet of shoreline and abundant camping and moorage for vessels. The main island and several smaller islands comprise the ''Sucia group.'' For the Fossil Bay project, the existing timber moorage facility would be demolished and replaced with steel pipe piles and aluminum components for the new facility. Work is expected to take up to 30 days and occur sometime between September 1, 2027, and February 15, 2028 (during Year 3).

The third State Park, Deception Pass State Park, is a 3,854-acre marine and camping area with 77,000 feet of saltwater shoreline along Rosario Strait and Skagit Bay. Bowman Bay is located within Deception Pass State Park on the southwestern shore of Fidalgo Island on Rosario Strait. For the Bowman Bay pier removal activity, State Parks proposes to demolish the storm-damaged moorage facility. No new structures are proposed for installation. Work is expected to take up to 30 in-water construction days and occur sometime between September 1, 2026, and February 15, 2027 (during Year 1).

Also within Deception Pass State Park is Rosario Pier, located within Sharpe Cove, a smaller bay just north of Gull Rocks and at the mouth of Bowman Bay. At Rosario Pier, State Parks proposes to demolish the timber pier, floating dock, and steel gangway. Work is anticipated to take up to 10 days and occur sometime between August 1, 2028, and February 15, 2030. Because the timing of the Rosario Pier project is uncertain, estimated exposures would occur either during Year 3 or Year 4.

At the fourth and final State Park—Olga State Park located on Orcas Island—State Parks proposes to replace the timber moorage facility with a steel and aluminum moorage facility. Work is expected to take up to 30 days and

occur sometime between September 1, 2030, and February 15, 2031 (during Year 5). See table 1 for estimated dates and durations of each proposed project.

Table 1 -- Summary of estimated dates, duration, and relevant seasonal issues for projects within the MFRP

Project	In-Water Work Window	Projected Year of In-Water Construction	Project Duration of In-Water Construction[1]	Important Seasonal Issues
Stuart Island MSP				
Reid Harbor	Sept 1-Feb 15	LOA Year 1 (2026–2027)	Up to 30 days	None
Prevost Harbor	Sept 1-Feb 15	LOA Year 2 (2027–2028)	Up to 30 days	None
Sucia Island MSP				
Fossil Bay	Sept 1-Feb 15	LOA Year 2 (2027–2028)	Up to 30 days	None
Deception Pass State Park				
Bowman Bay	Sept 1-Feb 15	LOA Year 1 (2026–2027)	Up to 30 days	- Northern elephant seal pupping – Jan-Feb - Northern elephant seal haul out (single animals) – Jan-June
Rosario Pier	Aug 1-Feb 15	LOA Years 3 or 4 (2028–2030)[2]	Up to 10 days	- Northern elephant seal pupping – Jan-Feb - Northern elephant seal haul out (single animals) – Jan-June
Olga State Park				
Olga Pier	Sept 1-Feb 15	LOA Year 5 (2030–2031)	Up to 30 days	None

[1] The project dates and duration reflect the total estimated duration of the in-water work portions of the project (*e.g.*, in addition to pile driving or removal, in-water work may include moving equipment around the site, floating in new floats, or direct pulling of piles with a crane). See table 2 for the estimated number of days of pile driving/removal at each project location.

[2] Because the timing of construction is uncertain, estimated exposures would occur either during Year 3 or Year 4.

During these construction activities, each timber pile is anticipated to be removed by crane pulling or, if necessary, a vibratory extractor. Due to water levels and access at some project sites, a floating barge is expected to be used to extract the piles. A debris boom or similar containment measure would be installed around the work area to capture any floating debris generated during demolition and new construction, if needed. Additionally, a silt curtain would be used, if necessary, to meet water-quality requirements based on results from water-quality monitoring conducted throughout the in-water pile work. Finally, the tops of all piles may be cut off or terminated at the design height, and fiberglass (or similar) bird caps would be installed.

Depending on soil conditions, the installation of steel piles would use one or more methods: a vibratory hammer, an impact hammer, or drilling (such as a rock-socket drill or a DTH drill to create a hole in the bedrock for placing a pile that provides lateral and longitudinal strength when the overlaying sediments are too shallow for other methods) for four of the six projects (all except Bowman Bay and Rosario Pier) (see *Description of Sound Sources for Specified Activities* for details on these pile installation/removal methods). Not all piles would require each type of installation; some may need only one method, like vibratory pile driving, while others may need two, such as vibratory and impact pile driving (see table 2). Since the exact methods cannot be determined beforehand, we assume that all methods are necessary for the four projects involving pile installation, while Bowman Bay and Rosario Pier would only include pile removal).

The estimated time to install each pile depends on the site substrate. Depending on soil conditions and the chosen pile-driving equipment, it may take up to 45 minutes per pile for vibratory pile driving or 120 minutes per pile for either rock-socket drilling or DTH drilling through very dense material. A load-bearing pile may require proof loading with an impact hammer. Impact proofing is estimated to need up to 400 strikes per pile (see table 2). Any impact driving would use a bubble curtain or a similar attenuation method. Pile removal and installation

would occur during daylight hours only, up to 14 hours a day.

The total estimated time to complete each of the six MFRP projects (*i.e.,* the duration of in-water construction) is up to 160 days over 5 years (table 1). However, the estimated duration of in-water construction days (up to 160 days) includes not only the time needed for actual pile driving/removal, but all in-water work. For example, the Reid Harbor project has an estimated in-water construction duration of up to 30 days. This includes, for instance, mobilizing equipment, floating new floats to support a pier, using a crane from a barge to pull timber piles out of the substrate, and pile driving. Therefore, except for work at Rosario Pier (up to 10 in-water construction days), while each of the other five projects has an estimated duration of up to 30 in-water construction days (totaling up to 160 days of in-water construction), State Parks anticipates that the maximum total number of pile driving/removal days is up to 69 days across all 5 years of work (table 2).

BILLING CODE 3510–22–P

Table 2 -- Estimated pile type, number, duration, piles per day/activity, and maximum total number of days of pile driving and/or removal at each project site

Site/Activity	Total # of Piles	Mins/Pile (vibratory/ drilling) or Strikes/ Pile (impact)	Piles/ Day	# of Pile Driving Days Per Pile Type	Maximum Total # of Pile-Driving Days
Reid Harbor – Up to 30 days of in-water construction					
Vibratory Hammer Removal 14-inch timber pile	18	15 mins	10	2	13
Vibratory Hammer Installation 16-inch steel pile	20	45 min	8	3	
Impact Hammer Embedment/Proofing 16-inch steel pile		400 strikes	8	3	
Rock Drilling (max) Embedment 16-inch steel pile		120 min	4	5	
Prevost Harbor – Up to 30 days of in-water construction					
Vibratory Hammer Removal 14-inch timber pile	30	15 min	10	3	11
Vibratory Hammer Installation 16-inch steel pile	15	45 min	8	2	
Impact Hammer Embedment/Proofing 16-inch steel pile		400 strikes	8	2	
Rock Drilling (max) Embedment 16-inch steel pile		120 min	4	4	
Fossil Bay – Up to 30 days of in-water construction					
Vibratory Hammer Removal 16-inch timber pile	16	15 min	10	2	13
Vibratory Hammer Installation 16-inch steel pile	20	45 min	8	3	
Impact Hammer Embedment/Proofing 16-inch steel pile		400 strikes	8	3	
Rock Drilling (max) Embedment 16-inch steel pile		120 min	4	5	
Bowman Bay – Up to 30 days of in-water construction					
Vibratory Hammer Removal 12-inch (18-inch proxy) timber pile	153	15 mins	10	16	16
Rosario Pier – Up to 10 days of in-water construction					
Vibratory Hammer Removal 14-inch timber pile	14	15 min	10	2	2
Olga Pier – Up to 30 days of in-water construction					
Vibratory Hammer Removal 16-inch timber pile	26	15 mins	10	3	14

Vibratory Hammer Installation 16-inch steel pile	20	45 min	8	3	
Impact Hammer Proofing 16-inch steel pile		400 strikes	8	3	
Rock Drilling (max) Embedment 16-inch steel pile		120 mins	4	5	
Maximum total # of pile driving days across all 5 years					69

Note: The maximum total number of pile-driving days for each project in this table includes only the days spent on in-water pile work. In other words, these estimated days are less than the expected total in-water construction duration (see table 1). Additionally, not all piles will require every type of installation, so the maximum total number of pile-driving days is likely conservative.

BILLING CODE 3510–22–C

Lastly, only pile removal and installation activities are anticipated to result in marine mammal takes due to increased underwater noise. Pier, ramp, or float removal and installation, as well as abutment replacement, are not anticipated to result in take of marine mammals and will therefore not be discussed further. While no physical takes are expected, underwater sound from these in-water activities could result in Level A harassment and/or Level B harassment of marine mammal species.

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 this information, and we refer the reader to these descriptions in the application rather than reprinting them here. 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 information regarding species occurrence, group size, and density may be found in the U.S. Navy Marine Species Density Database Phase III for the Northwest Training and Testing Study Area (U.S. Navy, 2019; *https://nwtteis.com/portals/nwtteis/files/NWTT_Marine_Species_Density_Technical_Report_September_2019.pdf*). Finally, 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 3 lists all species for which take is likely and proposed to be authorized for this activity and summarizes information related to the population or stock, including regulatory status under the MMPA and Endangered Species Act (ESA), as well as the potential biological removal (PBR), where known. The MMPA defines PBR 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 mortality or serious injury (M/SI) is anticipated or proposed to be authorized here, the PBR and M/SI 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 area may extend beyond U.S. waters. All managed stocks in this region are assessed in NMFS' U.S. Pacific or Alaska SARs. All values presented in table 3 are the most recent available at the time of publication and are available online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports.*

BILLING CODE 3510–22–P

Table 3 -- Species, stocks, and the status of marine mammals with estimated take from the specified activities

Common name[1]	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 – Infraorder Cetacea – Mysticeti (baleen whales)						
Family Balaenopteridae (rorquals)						
Minke whale	*Balaenoptera acutorostrata*	CA/OR/WA	-,-,N	915 (0.792, 509, 2018)	4.1	≥0.19
Family Eschrichtiidae						
Gray whale	*Eschrichtius robustus*	Eastern North Pacific	-,-,N	25,960 (0.05, 25,849, 2016)	801	131
Odontoceti (toothed whales, dolphins, and porpoises)						
Family Delphinidae						
Orca or killer whale	*Orcinus orca*	West Coast Transient	-,-,N	349 (N/A, 349, 2018)[5]	3.5	0.4
Pacific white-sided dolphin	*Aethalodelphis 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*	WA Inland Waters	-,-,N	11,233 (0.37, 8,308, 2015)	66	≥7.2
Order Carnivora – Pinnipedia						
Family Phocidae (earless seals)						
Northern elephant seal	*Mirounga angustirostris*	California Breeding	-,-,N	194,907 (N/A, 88,794, 2023)	5,328	11.2
Harbor seal	*Phoca vitulina*	WA Northern Inland Waters	-,-,N	15,898 (UNK, UNK, 1999)[6]	UND	9.8
Family Otariidae (eared seals and sea lions)						
Steller sea lion	*Eumetopias jubatus*	Eastern U.S.	-,-,N	36,308 (N/A, 36,308, 2022)[7]	2,178	92.3
California sea lion	*Zalophus californianus*	U.S.	-,-,N	257,606 (N/A, 233,515, 2014)	14,011	>321

[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 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 the coefficient of variation; N_{min} is the minimum estimate of stock abundance. In some cases, a CV is not applicable. N/A indicates data are unknown. UND (undetermined) PBR indicates data are available to calculate a PBR level, but a determination has been made that calculating a PBR level using those data is inappropriate (see the SAR for details).

[4] These values, found in NMFS' SARs, represent annual levels of human-caused mortality plus serious injury from all sources combined (*e.g.*, commercial fisheries, vessel strikes). Annual M/SI is often not precisely determined and is sometimes presented as a minimum value or range.

[5] N_{est} is based on the count of individuals identified from photo-ID catalogs in the analysis of a subset of data from 1958 to 2018.

[6] Abundance estimates are greater than 8 years old, so stock abundance is considered unknown in the most recent SAR. However, Pearson *et al.* (2024) report the peak abundance estimate as 15,898.

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

BILLING CODE 3510–22–C

As indicated above, table 3 lists all 10 species (with 10 managed stocks) that temporally and spatially co-occur with the specified activities to the degree that incidental take is reasonably likely to occur. In addition to what is included in sections 3 and 4 of State Parks' application (*https://www.fisheries.noaa.gov/action/incidental-take-authorization-washington-state-parks-and-recreation-commissions-marine*), the SARs (*https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments*), and NMFS' website, we provide further detail below informing the baseline for species likely to be found in the project area (*e.g.,* information regarding current Unusual Mortality Events (UMEs), and known important habitat areas, such as biologically important areas (BIAs; *https://oceannoise.noaa.gov/biologically-important-areas*) (Calambokidis *et al.,* 2024)).

While humpback whales (the Central America/Southern Mexico—CA/OR/WA stock; Mainland Mexico—CA/OR/WA stock; and Hawaii stock; *Megaptera novaeangliae*), fin whales (CA/OR/WA stock; *Balaenoptera physalis*), and the Eastern North Pacific southern resident stock of killer whales (*Orcinus orca*) have been documented in the area, take is not proposed for authorization. Because these animals are highly conspicuous and can be seen from several kilometers (km) away, and because the Orca Network (an online forum available to the public to report and compile marine mammal sightings; *https://www.orcanetwork.org*) provides real-time updates on movement patterns of these species, State Parks proposes, with NMFS' concurrence, to avoid take of these species by implementing mitigation measures and monitoring (see Proposed Mitigation and Proposed Monitoring and Reporting sections below). Therefore, these five marine mammal stocks are not discussed further beyond the explanation provided here.

Additionally, although the ranges of both the short-beaked common dolphin (CA/OR/WA stock; *Delphinus delphis*) and the bottlenose dolphin (CA/OR/WA offshore stock; *Tursiops truncatus*) include the Pacific Northwest, neither species has been documented in the San Juan Islands or the greater Salish Sea region in recent years, according to the Orca Network's sightings archive. Therefore, no take authorization is proposed, and these two marine mammal species are not discussed further.

Minke Whale

Minke whales seem to establish home ranges in the inland waters of Washington (Dorsey, 1983; Dorsey *et al.,* 1990). They are reported in these waters year-round, although most sightings occur from March through November (Calambokidis and Baird, 1994). Minke whales are more frequently seen during late summer and early fall in the San Juan Islands (Dorsey *et al.,* 1990). According to the Orca Network's sightings archive, between 2019 and 2023, minke whales were observed on 136 days within a 15-mile radius of the San Juan Islands. Peak sightings happened between April and October, with an average of 2 to 5 days of sightings per year. From November through March, the average number of sighting days drops to less than 1.

Gray Whale

During migration from Mexico to the Arctic, a subpopulation of the Eastern North Pacific stock of gray whales, commonly called the Pacific Coast Feeding Group (PCFG), stops and feeds along the coasts of Oregon and Washington, including North Puget Sound (Calambokidis *et al.,* 2024). A subgroup of the PCFG that feeds in Puget Sound, recently named ''Sounders'' gray whales, occurs in the highest concentrations at the southern ends of Whidbey and Camano Islands in North Puget Sound (Calambokidis *et al.,* 2024). However, they typically arrive in March and usually leave the area before June 1, when project activities are not scheduled. There is a BIA for feeding gray whales that overlaps with the project area, but it is active from February to June (Calambokidis *et al.,* 2024), which overlaps very minimally with the planned project period (August/September to February 15 annually).

Transient Killer Whale

Eight killer whale stocks are recognized within the Pacific U.S. Exclusive Economic Zone, including the West Coast Transient stock, which, along with the Southern Resident stock, is most likely to occur in inland Washington (Carretta *et al.,* 2017; Muto *et al.,* 2017). Transient killer whales are commonly observed year-round in the waters around Vancouver Island, the San Juan Islands, and the Strait of Juan de Fuca, but their occurrences vary from pod to pod (Baird, 2000). According to Orca Network's sightings archive, between 2019 and 2023, sightings from November through February averaged only 5–8 days. Similar trends were noted in the greater North Salish Sea (Strait of Juan de Fuca, San Juan Islands, and Strait of Georgia).

Pacific White-Sided Dolphin

Pacific white-sided dolphins are known to enter the inshore passes of Washington, and small groups have been seen in Haro Strait off San Juan Island. The species is generally rare in Puget Sound, with one stranding in southern Puget Sound recorded in the 1980s (Osborne *et al.,* 1988) and a few incidental sightings reported to the Orca Network.

Dall's Porpoise

Within the inland waters of Washington and British Columbia, this species is most abundant in the Strait of Juan de Fuca, extending eastward to the San Juan Islands (Nysewander *et al.,* 2005). Dall's porpoises may be most abundant in Puget Sound during the winter (Nysewander *et al.,* 2005; WDFW, 2007). While sightings appear to be decreasing (Evenson *et al.,* 2016), Dall's porpoises may occur in all areas of inland Washington at all times of year, but with different distributions throughout Puget Sound from winter to summer.

Harbor Porpoise

Harbor porpoises were historically among the most frequently observed marine mammals in Puget Sound; however, the species declined precipitously in the area between the 1940s and the 1990s, and sightings have increased seasonally more recently (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 porpoises in Washington's inland waters, including Puget Sound. The data suggest that harbor porpoises 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 from the mid-2000s to 2015 (Evenson *et al.,* 2016). Sighting data collected from 2013 to 2016 confirm that harbor porpoises are present in Puget Sound year-round and have reoccupied these waters (Smultea *et al.,* 2017).

Northern Elephant Seal

Northern elephant seals are generally considered rare in Puget Sound, though sightings have increased in the last decade. However, a female elephant seal has been reported hauled out in Mutiny Bay on Whidbey Island (south of the project sites) 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 three more pups between 2018 and 2022 (Orca Network, 2026). Northern elephant seals generally give birth in January, but this individual has given birth in March on multiple occasions. Her most recent pup was born in late January 2022, where she pupped at the beach at Bowman Bay. She typically returns to Mutiny Bay in April and May to molt (when project activities are not planned). Her pups have also repeatedly returned to haul out on nearby beaches, and one has also had a pup (Orca Network, 2026). Reports from iNaturalist include sightings of this female and her pups, as well as of solo juveniles from March through June (iNaturalist, 2026). Additionally, State Parks' IHA application references newspaper reports of an adult male northern elephant seal, which has been seen on rare occasions in Deception Pass State Park (State Parks, 2026).

Harbor Seal

Harbor seals are the most common and the only pinniped that breed and remain in the inland marine waters of Washington year-round (Calambokidis and Baird, 1994). Harbor seals haul out on rocks, reefs, and beaches. However, they are also commonly found on man-made structures such as docks, piers, and floats. Harbor seals display strong fidelity for haul-out sites (Pitcher and McAllister, 1981).

Steller Sea Lion

Steller sea lions mainly occur along the Washington coast; however, smaller numbers are seasonally present in the San Juan Islands and Puget Sound (Wiles, 2015). An estimate of several dozen to a few hundred Steller sea lions (mostly males) is present in Puget Sound at any given time, with peak abundance in fall and winter (Jeffries, 2014; Smultea *et al.,* 2017; Wiles, 2015). Jeffries (2014) identified five winter haul-out sites in Puget Sound used by Steller sea lions, though they are south of the San Juan Islands. Numbers of animals observed at these sites ranged from a few animals to just under 100.

California Sea Lion

Only male California sea lions migrate into Pacific Northwest waters from August to mid-June (Wright *et al.,* 2010). In July, nearly all males are expected to be on or near breeding sites off Southern California (DeLong *et al.,* 2017; Wright *et al.,* 2010). Female California sea lions remain in waters near their breeding rookeries off the coast of California and Mexico (Jeffries *et al.,* 2000; Lowry and Forney, 2005). An estimated 2,256 California sea lions in Puget Sound and Hood Canal combined transit through the Strait of Juan de Fuca in approximately September and May/June (DeLong *et al.,* 2017; Gearin *et al.,* 2017). California sea lions are hauled out 44 percent of the time (56 percent in-water) (DeLong *et al.,* 2017), with haul-out sites located on jetties, offshore rocks and islands, log booms, marina docks, and navigation buoys.

There are no active UMEs for any of the species listed in table 3. Recent Pacific Coast UMEs have primarily involved Eastern North Pacific gray whales. The most recent UME, from 2019 to 2023, saw nearly 700 strandings primarily due to malnutrition and emaciation, indicating a lack of food in their Arctic feeding grounds. Ship strikes and entanglements also contributed to this UME. A UME for California sea lions (2013–2016) was likely caused by environmental factors affecting food availability.

An independent group of cetacean experts compiled and interpreted the best available information, using the methodology described in Harrison *et al.* (2023), to develop BIAs. While there exist BIAs for migrating gray and fin whales near the mouth and inland of the Salish Sea (Calambokidis *et al.,* 2015; 2024), these BIAs are far to the west and do not overlap with any of the proposed MFRP project sites.

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 sound exposure, it is necessary to understand the frequency ranges that marine mammals can hear. Not all marine mammal species have equal hearing capabilities or hear over the same frequency range (*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 hearing ranges (behavioral or auditory-evoked potential techniques) or on estimated hearing ranges (*e.g.,* behavioral response data, anatomical modeling). Generalized hearing ranges were chosen based on the approximately 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). We note that the names of two hearing groups and the generalized hearing ranges of all marine mammal hearing groups have been recently updated (NMFS, 2024), as reflected in table 4.

Table 4 -- 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 approximately 65 dB threshold from composite audiogram, previous analysis in NMFS (2018), and/or data from Southall *et al.* (2007) and Southall *et al.* (2019). Additionally, animals can detect very loud sounds above and below the "generalized" hearing range.

For more details 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 discusses how components of the specified activities may affect marine mammals and their habitat. The Estimated Take of Marine Mammals section includes a quantitative analysis of the number of individuals that are expected to be taken by these activities. The Negligible Impact Analysis and Determination section considers the content of this section, as well as 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 project activities are likely to result from vibratory pile installation and removal, impact pile driving, and rock- socket drilling and/or DTH. The effects of underwater noise from State Parks' proposed activities have the potential to result in takes from Level A harassment and Level B harassment of marine mammals in the proposed project areas.

There are a variety of types and degrees of effects on marine mammals, prey species, and habitats that could result from the specified activities. Below, we provide a brief description of the types of sound generated by the specified activities, the general impacts on marine mammals and their habitat from these activities, and a related project-specific analysis that considers the proposed mitigation measures.

Description of Sound Sources for Specified Activities

Activities associated with the MFRP project that have the potential to incidentally take marine mammals through sound exposure include vibratory removal of timber piles, vibratory installation of steel piles, impact installation of steel piles, rock-socket drilling, or DTH drilling of steel piles. Because the rock-drilling method will not be determined until the project goes out to bid, either rock-socket drilling or DTH drilling may be used. For project activities involving drilling, State Parks used the maximum rock-socket drilling source level (183 dB root-mean-squared (RMS)) rather than the average (154 dB RMS) in their analysis (Dazey *et al.,* 2012), and instead of the DTH source-level guidance (167 dB RMS (Heyvaert and Reyff, 2021); however, this applies only to rock-socket drilling. Therefore, the ''max'' source level was used to determine the isopleths for this installation method, thereby providing coverage for both rock-socket drilling and DTH drilling.

Impact hammers typically operate by repeatedly dropping and/or pushing a heavy piston onto a pile to drive the pile into the substrate. Sound generated by impact hammers is impulsive, characterized by rapid rise times and high peak levels, a potentially injurious combination (Hastings and Popper, 2005).

Vibratory hammers install piles by vibrating the piles and using the hammer's weight to drive them into the substrate. Vibratory hammers typically produce less sound (*i.e.,* lower levels) 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; California Department of Transportation (CALTRANS), 2015, 2020). Sounds produced by vibratory hammers are non-impulsive; compared to sounds produced by impact hammers, they have a slower rise time, reducing the probability and severity of injury, and the sound energy is distributed over a greater amount of time (Nedwell and Edwards, 2002; Carlson *et al.,* 2005).

DTH systems use a combination of drilling and percussive mechanisms to advance a hole into the rock, with or without simultaneously advancing a pile/casing into that hole. A DTH system is essentially a drill bit that drills through the bedrock using a rotating function like a normal drill, integrated with a hammering mechanism to increase the speed of progress through the substrate (*i.e.,* it is like a ''hammer drill'' hand tool). The sound produced by the DTH methods simultaneously contains both a continuous non-impulsive component from the drilling action and an impulsive component from the hammering effect. Therefore, for purposes of evaluating Level A harassment and Level B harassment under the MMPA, NMFS treats DTH systems as both impulsive (Level A harassment thresholds) and continuous,

non-impulsive (Level B harassment thresholds) sound sources.

Typical activities for which DTH systems are used include rock-socket drilling. Rock-socket drilling involves using DTH techniques to create a hole in the bedrock, into which a pile is placed to provide lateral and longitudinal strength, as described above. Rock-socket drillings are used in bedrock when the overlaying sediments are too shallow to adequately secure the bottom portion of a pile using other methods.

The likely or possible impacts of State Parks' proposed activities on marine mammals could involve both non-acoustic and acoustic stressors. Potential non-acoustic stressors could result from the physical presence of the equipment and personnel. However, given that there are no consistent or dedicated pinniped haul-out sites within the immediate vicinity of any of the six project sites, we have determined that visual and other non-acoustic stressors would be limited, and any impacts on marine mammals are primarily expected to be acoustic (underwater) in nature.

Potential Effects of Underwater Sound on Marine Mammals

The introduction of anthropogenic noise into the aquatic environment from vibratory pile removal, and vibratory, impact, rock-socket/DTH drilling pile installation is the primary means by which marine mammals may be harassed by State Parks' specified activities. Anthropogenic sounds span a broad range of frequencies and sound levels and can have highly variable impacts on marine life, from none or minor to potentially severe responses, depending on received levels, exposure duration, behavioral context, and other factors. Broadly, underwater sound from active acoustic sources, such as those in the MFRP project, can potentially result in one or more of the following: temporary or permanent hearing impairment, non-auditory physical or physiological effects, behavioral disturbance, stress, and masking (Richardson *et al.,* 1995; Gordon *et al.,* 2003; Nowacek *et al.,* 2007; Southall *et al.,* 2007; Götz *et al.,* 2009).

We describe the more severe effects of certain non-auditory physical or physiological effects only briefly, as we do not expect that the use of vibratory, impact, or rock-socket/DTH drilling is reasonably likely to result in such effects (see below for further discussion). For non-auditory physical effects, while harbor seals, northern elephant seals, California sea lions, and Steller sea lions are known to haul out in Puget Sound, their occurrence is seasonal for all except harbor seals, and there are no rookeries or known dedicated haul-outs for any of these four species in the immediate vicinity of any of the six project areas (see Description of Marine Mammals in the Area of Specified Activities section). Ultimately, we expect that any visual and/or other non-acoustic stressors would be limited and that any impact on marine mammals would be acoustic in nature.

Potential physiological effects from sound sources, particularly impulsive sound, can range from behavioral disturbance or tactile perception to physical discomfort, slight injury to the internal organs and the auditory system, or mortality (Yelverton *et al.,* 1973). Non-auditory physiological effects or injuries that theoretically might occur in marine mammals exposed to high level underwater sound or as a secondary effect of extreme behavioral reactions (*e.g.,* change in dive profile as a result of an avoidance reaction) caused by exposure to sound include neurological effects, bubble formation, resonance effects, and other types of organ or tissue damage (Cox *et al.,* 2006; Southall *et al.,* 2007; Zimmer and Tyack, 2007; Tal *et al.,* 2015). However, the project activities considered here do not involve the use of devices such as explosives or mid-frequency tactical sonar that are associated with these types of effects.

In general, animals exposed to natural or anthropogenic sounds may experience physical and psychological effects, ranging in magnitude from none to severe (Southall *et al.,* 2007, 2019). Exposure to anthropogenic noise can result in auditory threshold shifts and behavioral responses (*e.g.,* avoidance, temporary cessation of foraging and vocalizing, changes in dive behavior). It can also lead to non-observable physiological responses, such as increased stress hormone levels. Additional noise in a marine mammal's habitat can mask acoustic cues used in daily functions, such as communication and predator-prey detection.

The degree of effect of an acoustic exposure on marine mammals is dependent on several factors, including, but not limited to, sound type (*e.g.,* impulsive vs. non-impulsive), signal characteristics, the species, age, and sex class (*e.g.,* adult male vs. mom with calf), duration of exposure, the distance between the noise source and the animal, received levels, behavioral state at time of exposure, and previous history with exposure (Wartzok *et al.,* 2004; Southall *et al.,* 2007). In general, sudden, high-intensity sounds can cause hearing loss, as can longer exposures to lower-intensity sounds. Moreover, any temporary or permanent loss of hearing, if it occurs at all, would occur almost exclusively for noise within an animal's hearing range. Below, we describe the specific acoustic effects that may occur depending on the activities proposed by State Parks.

Richardson *et al.* (1995) described zones of increasing effect intensity that might be expected to occur with distance from a source, assuming that the signal is within an animal's hearing range. First (at the greatest distance) is the area within which the acoustic signal would be audible (potentially perceived) to the animal but not strong enough to elicit any overt behavioral or physiological response. The next zone (closer to the receiving animal) corresponds to the area where the signal is audible to the animal and sufficiently intense to elicit behavioral or physiological responsiveness. The third is a zone within which, for high-intensity signals, the received level is sufficient to cause discomfort or tissue damage to auditory or other systems. Overlaying these zones to some extent is the area within which masking (*i.e.,* when a sound interferes with or masks an animal's ability to detect a signal of interest above the absolute hearing threshold) may occur; the masking zone may vary widely in size.

Below, we provide additional details regarding potential impacts on marine mammals and their habitats from noise in general, starting with hearing impairment, as well as from the specific activities State Parks plans to conduct, to the extent it is available.

Hearing Threshold Shifts

NMFS defines a noise-induced threshold shift (TS) as a change, usually an increase, in the audibility threshold at a specified frequency or portion of an individual's hearing range above a previously established reference level (NMFS, 2018, 2024). The amount of threshold shift is customarily expressed in dB. A TS can be permanent or temporary. As described in NMFS (2018, 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), the 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, the time to recovery (seconds to minutes or hours to days), the frequency range of the exposure (*i.e.,* spectral content), the hearing frequency range of the exposed species relative to the signal's frequency spectrum (*i.e.,* how the 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).

Temporary Threshold Shift

A temporary threshold shift (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, 2024). It is not considered an auditory injury (AUD INJ). Based on data from marine mammal TTS measurements (see Southall *et al.,* 2007, 2019), 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 (Finneran *et al.,* 2000, 2002; Schlundt *et al.,* 2000). As described by Finneran (2015), marine mammal studies have shown that the amount of TTS increases with the 24-hour cumulative sound exposure level (SEL_{24}) in an accelerating fashion: at low exposures with lower SEL_{24}, the amount of TTS is typically small, and the growth curves have shallow slopes. At higher SEL_{24} exposures, the growth curves become steeper and approach a linear relationship with the sound exposure level (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 more impactful (similar to those discussed in auditory masking, below). For example, a marine mammal may readily compensate for a brief, relatively small amount of TTS in a non-critical frequency range while traveling through the open ocean, where ambient noise is lower and competing sounds are fewer. Alternatively, a larger amount and a longer duration of sustained TTS during critical communication periods (*e.g.,* for successful mother-calf interactions) could have more severe impacts. We note that reduced hearing sensitivity, as a simple function of aging, has been observed in marine mammals, as well as in humans and other taxa (Southall *et al.,* 2007), suggesting that strategies exist to cope with this condition to some degree, though likely not without cost.

Many studies have examined noise-induced hearing loss in marine mammals (see Finneran (2015) and Southall *et al.* (2019) for summaries). TTS is the mildest form of hearing impairment that can occur during exposure to sound (Kryter, 2013). While experiencing TTS, the hearing threshold rises, so the sound must be louder to be heard. In terrestrial and marine mammals, TTS can last from minutes to hours (in cases of strong TTS) (Finneran, 2015). In many cases, hearing sensitivity recovers rapidly after exposure to the sound ends. For cetaceans, published data on the onset of TTS are limited to captive bottlenose dolphins, beluga whales (*Delphinapterus leucas*), harbor porpoises, and Yangtze finless porpoises (*Neophocoena asiaeorientalis*) (Southall *et al.,* 2019). For pinnipeds in water, measurements of TTS are limited to harbor seals, northern elephant seals (*Mirounga angustirostris*), bearded seals (*Erignathus barbatus*), and California sea lions (Kastak *et al.,* 1999, 2007; Kastelein *et al.,* 2019b, 2019c, 2021, 2022a, 2022b; Reichmuth *et al.,* 2019; Sills *et al.,* 2020). TTS was not observed in spotted (*Phoca largha*) and ringed (*Pusa hispida*) seals exposed to single airgun impulse sounds at levels matching previous predictions of TTS onset (Reichmuth *et al.,* 2016). These studies examine hearing thresholds in marine mammals before and after exposure to intense or long-duration sound. The difference between the pre-exposure and post-exposure thresholds can be used to determine the amount of threshold shift at various post-exposure times.

The amount and onset of TTS depend on the exposure frequency. Sounds below the region of best sensitivity for a species or hearing group are less hazardous than those near the region of best sensitivity (Finneran and Schlundt, 2013). At low frequencies, onset-TTS exposure levels are higher compared to those in the region of best sensitivity (*i.e.,* a low frequency noise would need to be louder to cause TTS onset when TTS exposure level is higher), as shown for harbor porpoises and harbor seals (Kastelein *et al.,* 2019a, 2019c). Note that in general, harbor seals and harbor porpoises have a lower TTS onset than other measured pinniped or cetacean species (Finneran, 2015). In addition, TTS can accumulate across multiple exposures, but the resulting TTS would be lower than that from a single, continuous exposure with the same SEL (Mooney *et al.,* 2009; Finneran *et al.,* 2010; Kastelein *et al.,* 2014, 2015). This means that TTS predictions based on the total, SEL_{24}, will overestimate the amount of TTS from intermittent exposures, such as sonars and impulsive sources. Nachtigall *et al.* (2018) describe measurements of hearing sensitivity of multiple odontocete species (bottlenose dolphin, harbor porpoise, beluga, and false killer whale (*Pseudorca crassidens*)) when a warning sound preceded a relatively loud sound. These captive animals were shown to reduce hearing sensitivity when warned of an impending intense sound. Based on these experimental observations of captive animals, the authors suggest that wild animals may dampen their hearing during prolonged exposures or if conditioned to anticipate intense sounds. Another study showed that echolocating animals (including odontocetes) might have anatomical specializations that enable conditioned hearing reduction and filtering of low-frequency ambient noise, including increased stiffness and control of middle-ear structures, as well as placement of inner-ear structures (Ketten *et al.,* 2021). Data available on noise-induced hearing loss for mysticetes are currently lacking (NMFS, 2024). Additionally, the existing marine mammal TTS data are limited to a small number of individuals within these species.

Relationships between TTS and AUD INJ thresholds have not been studied in marine mammals, and there are no measured PTS data for cetaceans, but such relationships are assumed to be similar to those in humans and other terrestrial mammals. AUD INJ typically occurs at exposure levels at least several dB above that inducing mild TTS (*e.g.,* a 40-dB threshold shift approximates AUD INJ onset) (Kryter *et al.,* 1966; Miller, 1974), while a 6-dB threshold shift approximates TTS onset (Southall *et al.,* 2007, 2019). Based on data from terrestrial mammals, a precautionary assumption is that the AUD INJ thresholds for impulsive sounds (such as impact pile driving pulses as received close to the source) are at least 6 dB higher than the TTS threshold on a peak-pressure basis, and AUD INJ cumulative sound exposure level thresholds are 15 to 20 dB higher than TTS cumulative sound exposure level thresholds (Southall *et al.,* 2007, 2019). Given the higher level of sound or longer exposure duration necessary to cause AUD INJ as compared with TTS, it is considerably less likely that AUD INJ could occur.

Auditory Injury

NMFS (2024) defines AUD INJ as damage to the inner ear that can result in tissue destruction, such as loss of cochlear neuron synapses or auditory neuropathy (Houser, 2021; Finneran, 2024). AUD INJ may or may not result in a permanent threshold shift (PTS). PTS is subsequently defined as a permanent, irreversible increase in the threshold of audibility at a specified frequency or portion of an individual's

hearing range above a previously established reference level (NMFS, 2024). PTS generally affects only a limited frequency range, and animals with PTS have some level of hearing loss at the relevant frequencies; typically, animals with PTS or other AUD INJ are not functionally deaf (Au and Hastings, 2008; Finneran, 2016). Available data from humans and other terrestrial mammals indicate that a 40-dB threshold shift approximates the onset of PTS (see Ward *et al.,* 1958, 1959; Ward, 1960; Kryter *et al.,* 1966; Miller, 1974; Ahroon *et al.,* 1996; Henderson *et al.,* 2008). However, a variety of terrestrial and marine mammal studies (see Ward *et al.,* 1958; Ward *et al.,* 1959; Ward, 1960; Miller *et al.,* 1963; Kryter *et al.,* 1966; Finneran *et al.,* 2007; Kastelein *et al.,* 2013) indicate that threshold shifts of up to 40 to 50 dB (measured a few minutes after exposure) may be induced without resulting in PTS. PTS levels for marine mammals are estimates; with the exception of a single study unintentionally inducing PTS in a harbor seal (Kastak *et al.,* 2008), no empirical data have measured PTS in marine mammals, largely due to the fact that, for various ethical reasons, experiments involving anthropogenic noise exposure at levels inducing AUD INJ are not typically pursued or authorized (NMFS, 2024). NMFS has set the PTS onset as a threshold shift of 40 dB.

However, after sound exposure ceases or between successive sound exposures, there is potential for recovery from hearing loss. Thus, because a threshold shift is measured a few minutes after noise exposure does not mean that those initial shifts are persistent (*i.e.,* no recovery). When initial threshold shifts fully recover back to baseline hearing levels, these are considered TTS. PTS indicates there is no full recovery back to baseline hearing levels; however, it does not mean there is no recovery. Rather, PTS indicates incomplete hearing recovery. Recovery depends on the initial threshold shift amount, the frequency of the shift, the temporal pattern of exposure (*e.g.,* exposure duration; continuous vs. intermittent), and the physiological mechanisms underlying the shift (*e.g.,* mechanical vs. metabolic). Since recovery is complicated, our current AUD INJ onset criteria do not account for the potential for recovery.

Behavioral Effects

Exposure to noise can also behaviorally disturb marine mammals to a level that rises to the definition of harassment under the MMPA. NMFS considers a behavioral disturbance that rises to the level of harassment under the MMPA a non-minor response. In other words, not every response qualifies as a behavioral disturbance, and for responses that do, those of higher level or longer duration have the potential to affect foraging, reproduction, or survival. Behavioral disturbance may include subtle changes (*e.g.,* minor or brief avoidance of an area or changes in vocalizations), more conspicuous changes in similar behavioral activities, and more sustained and/or potentially severe reactions, such as displacement from or abandonment of high-quality habitat. Behavioral responses may include changing durations of surfacing and dives, changing direction and/or speed, reducing/increasing vocal activities, changing/cessation of certain behavioral activities (such as socializing or feeding), eliciting a visible startle response or aggressive behavior (such as tail/fin slapping or jaw clapping), and avoiding areas where sound sources are located. In addition, pinnipeds may increase their haul-out time, possibly to avoid in-water disturbance (Thorson and Reyff, 2006).

Behavioral responses to sound are highly variable and context-specific, and any reactions depend on numerous intrinsic and extrinsic factors (*e.g.,* species, state of maturity, experience, current activity, reproductive state, auditory sensitivity, time of day), as well as the interplay between factors (*e.g.,* Richardson *et al.,* 1995; Wartzok *et al.,* 2004; Southall *et al.,* 2007, 2019; 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, 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) and Gomez *et al.* (2016) for reviews of studies involving marine mammal behavioral responses to sound.

Habituation can occur when an animal's response to a stimulus wanes with repeated exposure, usually in the absence of unpleasant associated events (Wartzok *et al.,* 2004). Animals are most likely to habituate to predictable, unvarying sounds. It is important to note that habituation is appropriately considered as a ''progressive reduction in response to stimuli that are perceived as neither aversive nor beneficial,'' rather than a general moderation in response to human disturbance (Bejder *et al.,* 2009). The opposite process is sensitization, in which an unpleasant experience leads an animal to respond at lower levels of exposure in the future, often in the form of avoidance.

As noted above, behavioral state may affect the type of response. For example, resting animals may show greater behavioral change in response to disturbing sound levels compared to animals that are highly motivated to remain in an area for feeding (Richardson *et al.,* 1995; Wartzok *et al.,* 2004; National Research Council (NRC), 2005). Controlled experiments with captive marine mammals have shown pronounced behavioral reactions, including avoidance of loud sound sources (Ridgway *et al.,* 1997; Finneran *et al.,* 2003). Observed responses of wild marine mammals to loud pulsed sound sources (*e.g.,* seismic airguns) have been varied but often consist of avoidance behavior or other behavioral changes (Richardson *et al.,* 1995; Morton and Symonds, 2002; Nowacek *et al.,* 2007).

Available studies show wide variation in responses to underwater sound; therefore, it is difficult to predict how any given sound in a particular instance might affect marine mammals perceiving it (*e.g.,* Erbe *et al.,* 2019). If a marine mammal briefly reacts to an underwater sound by changing its behavior or moving a small distance, the resulting change is unlikely to be significant to the individual, let alone the stock or population. 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). However, there are broad categories of potential responses, which we describe in greater detail here, including alterations in dive and foraging behavior, effects on breathing, interference with or alteration of vocalizations, avoidance, and flight.

Avoidance and Displacement

Changes in dive behavior can vary widely and may consist of increased or decreased dive times and surface intervals as well as changes in the rates of ascent and descent during a dive (*e.g.,* Frankel and Clark, 2000; Costa *et al.,* 2003; Ng and Leung, 2003; Nowacek *et al.,* 2004; Goldbogen *et al.,* 2013a, 2013b; Blair *et al.,* 2016). Variations in

dive behavior may reflect interruptions in biologically significant activities (*e.g.,* foraging) or they may be of little biological significance. The impact of an alteration in dive behavior resulting from acoustic exposure depends on what the animal is doing at the time of exposure and on the type and magnitude of the response.

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). Determining whether foraging disruptions incur fitness consequences would require information on, or estimates of, the energetic requirements of affected individuals; the relationships between prey availability, foraging effort, and success; and the animal's life history stage.

Respiration rates vary naturally with different behaviors, and alterations in breathing rate, as a function of acoustic exposure, can be expected to co-occur with other behavioral responses, such as a flight response or changes in diving. However, respiration rates in and of themselves may be representative of annoyance or an acute stress response. Various studies have shown that respiration rates may either be unaffected or could increase, depending on the species and signal characteristics, again highlighting the importance of understanding species differences in the tolerance of underwater noise when determining the potential for impacts resulting from anthropogenic sound exposure (*e.g.,* Kastelein *et al.,* 2001; 2005; 2006; Gailey *et al.,* 2007). For example, harbor porpoise respiration rates increased in response to pile driving sounds at and above a received broadband SPL of 136 dB (zero-peak SPL: 151 dB re 1 µPa; SEL of a single strike (SEL_{ss}): 127 dB re 1 $\mu Pa^2 - s$) (Kastelein *et al.,* 2013).

Avoidance is the displacement of an individual from an area or migration path due to the presence of a sound or other stressors and is one of the most obvious manifestations of disturbance in marine mammals (Richardson *et al.,* 1995). Avoidance may be short-term, with animals returning to the area once the noise has ceased (*e.g.,* Bowles *et al.,* 1994; Goold, 1996; Stone *et al.,* 2000; Morton and Symonds, 2002; Gailey *et al.,* 2007). Longer-term displacement is possible, however, which may lead to changes in the abundance or distribution patterns of the affected species in the affected region if habituation to the sound does not occur (*e.g.,* Blackwell *et al.,* 2004; Bejder *et al.,* 2006; Teilmann *et al.,* 2006).

A flight response is a dramatic change in normal movement, with directed, rapid movement away from the perceived location of a sound source. The flight response differs from other avoidance responses in its intensity (*e.g.,* directed movement and travel rate). Relatively little information exists on the flight responses of marine mammals to anthropogenic signals, although observations of flight responses to the presence of predators have been made (Connor and Heithaus, 1996; Bowers *et al.,* 2018). The result of a flight response could range from brief, temporary exertion and displacement from the area where the signal provokes flight to, in extreme cases, marine mammal strandings (England *et al.,* 2001). However, it should be noted that response to a perceived predator does not necessarily invoke flight (Ford and Reeves, 2008), and whether individuals are solitary or in groups may influence the response.

Behavioral disturbance can also affect marine mammals in more subtle ways. Increased vigilance may incur costs through attentional diversion (*i.e.,* when a response requires heightened vigilance, it may come at the expense of reduced attention to other critical behaviors, such as foraging or resting). These effects have generally not been demonstrated in marine mammals, but studies of fishes and terrestrial animals have shown that increased vigilance may substantially reduce feeding rates (*e.g.,* Beauchamp and Livoreil, 1997; Fritz *et al.,* 2002; Purser and Radford, 2011). In addition, chronic disturbance can cause population declines through reductions in fitness (*e.g.,* declines in body condition) and subsequent reductions in reproductive success, survival, or both (*e.g.,* Harrington and Veitch, 1992; Daan *et al.,* 1996; Bradshaw *et al.,* 1998). However, Ridgway *et al.* (2006) reported that increased vigilance in bottlenose dolphins exposed to sound over a 5-day period did not result in sleep deprivation or stress.

Many animals perform vital functions, such as feeding, resting, traveling, and socializing, on a diel cycle (24-hour cycle). Disruption of such functions resulting from reactions to stressors, such as sound exposure, is more likely to be significant if it lasts more than one diel cycle or recurs on subsequent days (Southall *et al.,* 2007). Consequently, a behavioral response lasting less than one day and not recurring on subsequent days is not considered particularly severe unless it could directly affect reproduction or survival (Southall *et al.,* 2007). Note that there is a difference between multi-day substantive (*i.e.,* meaningful) behavioral reactions and multi-day anthropogenic activities. For example, just because an activity lasts multiple days does not necessarily mean that individual animals are exposed to activity-related stressors for multiple days, or, further, that they are exposed in a manner that results in sustained, multi-day, substantive behavioral responses.

Physiological Stress Responses

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

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

The primary distinction between stress (which is adaptive and does not normally place an animal at risk) and ''distress'' is the cost of the response. During a stress response, an animal uses its glycogen stores, which can be quickly replenished once the stress is alleviated. In such circumstances, the cost of the stress response would not pose serious fitness consequences. However, when an animal does not have sufficient energy reserves to satisfy the energetic costs of a stress response,

energy resources must be diverted from other functions. This state of distress would last until the animal replenishes its energy reserves to a sufficient level to restore normal function.

Relationships between these physiological mechanisms, animal behavior, and the costs of stress responses are well-studied through controlled experiments and for both laboratory and free-ranging animals (*e.g.,* Holberton *et al.,* 1996; Hood *et al.,* 1998; Jessop *et al.,* 2003; Krausman *et al.,* 2004; Lankford *et al.,* 2005; Ayres *et al.,* 2012; Yang *et al.,* 2022). Stress responses from exposure to anthropogenic sounds or other stressors, and their effects on marine mammals, have also been reviewed (Fair and Becker, 2000; Romano *et al.,* 2002b) and, more rarely, studied in wild populations (*e.g.,* Romano *et al.,* 2002a). For example, Rolland *et al.* (2012) found that noise reduction from reduced ship traffic in the Bay of Fundy was associated with decreased stress in North Atlantic right whales (*Eubalaena glacialis*). In addition, Lemos *et al.* (2022) observed a correlation between higher levels of fecal glucocorticoid metabolite concentrations (indicative of a stress response) and vessel traffic in gray whales. Yang *et al.* (2022) studied behavioral and physiological responses in captive bottlenose dolphins exposed to playbacks of ''pile-driving-like'' impulsive sounds, finding significant changes in cortisol and other physiological indicators, but only minor behavioral changes. These and other studies lead to a reasonable expectation that some marine mammals would experience physiological stress responses upon exposure to acoustic stressors, and that some of these responses may be classified as ''distress.'' In addition, any animal experiencing TTS would likely also exhibit stress responses (NRC, 2005); however, distress is unlikely to result from the proposed activities by State Parks based on observations of marine mammals during previous, similar construction projects.

Vocalizations and Auditory Masking

Since many marine mammals rely on sound to find prey, moderate social interactions, and facilitate mating (Tyack, 2008), noise from anthropogenic sound sources can interfere with these functions, but only if the noise spectrum overlaps with the hearing sensitivity of the receiving marine mammal (Southall *et al.,* 2007; Clark *et al.,* 2009; Hatch *et al.,* 2012). Chronic exposure to excessive, though not high-intensity, noise could cause masking at specific frequencies for marine mammals that rely on sound for vital biological functions (Clark *et al.,* 2009). Acoustic masking is when other noises, such as from human sources, interfere 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; Erbe *et al.,* 2016). Therefore, under certain circumstances, marine mammals whose acoustic sensors or environment are severely masked could also be impaired in maximizing their performance fitness in survival and reproduction. 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 (Hotchkin and Parks, 2013).

The frequency range of the potentially masking sound is important in determining any potential behavioral impacts. For example, low-frequency signals may have less effect on high-frequency echolocation sounds produced by odontocetes (toothed whales) but are more likely to affect the detection of mysticete communication calls and other potentially important natural sounds such as those produced by surf and some prey species. The masking of communication signals by anthropogenic noise may be considered a reduction in the communication space of animals (*e.g.,* Clark *et al.,* 2009), and may result in energetic or other costs as animals change their vocalization behavior (*e.g.,* Miller *et al.,* 2000; Foote *et al.,* 2004; Parks *et al.,* 2007; Di Iorio and Clark, 2010; Holt *et al.,* 2009). Masking can be reduced in situations where the signal and noise come from different directions (Richardson *et al.,* 1995), through amplitude modulation of the signal, or through other compensatory behaviors, including modifications of the signal's acoustic properties or the signaling behavior (Hotchkin and Parks, 2013). Masking can be tested directly in captive species (*e.g.,* Erbe, 2008), but in wild populations it must be either modeled or inferred from evidence of masking compensation. Few studies have addressed real-world masking sounds likely to be experienced by marine mammals in the wild (*e.g.,* Branstetter *et al.,* 2013).

Masking occurs in the frequency band the animals use and is more likely to occur in the presence of broadband, relatively continuous noise sources, such as vibratory pile removal or installation. The energy distribution of pile-driving sound spans a broad frequency spectrum and is expected to fall within the audible range of marine mammals present in the project area. Since noises generated from the proposed construction activities are mostly concentrated at low frequencies (<2 kHz), these activities likely have less effect on mid-frequency echolocation sounds produced by odontocetes (toothed whales). However, lower-frequency noises are more likely to affect the detection of communication calls and other potentially important natural sounds, such as surf and prey noise. Low-frequency noise may also affect communication signals when they occur near the noise band, thereby reducing the available communication space for animals (*e.g.,* Clark *et al.,* 2009) and increasing stress levels (*e.g.,* Holt *et al.,* 2009). Unlike TS, masking, which can occur over large temporal and spatial scales, can potentially affect species at the population, community, or even ecosystem levels, in addition to the individual level. Masking affects both senders and receivers of signals and, at higher levels and for longer durations, could have long-term chronic effects on marine mammal species and populations. However, the noise generated by State Parks' proposed activities would occur only intermittently, spanning less than 60 in-water construction days (and less for actual pile-driving days; see tables 2 and 3) in a single year during the 5-year authorization period, and in relatively small areas focused on the proposed construction sites. Thus, while State Parks' proposed activities may mask some acoustic signals relevant to the daily behavior of marine mammals, the short-term duration and limited areas affected make it very unlikely that the fitness of individual marine mammals would be affected.

While in some cases marine mammals have exhibited little to no obviously detectable response to certain common or routine industrialized activities (Cornick *et al.,* 2011; Horsley and Larson, 2023), some animals may, at times, be exposed to received levels of sound above AUD INJ and Level B harassment thresholds during the proposed activities.

Marine mammals vocalize for different purposes and across multiple modes, such as whistling, echolocation

click production, calling, and singing. Changes in vocalization behavior in response to anthropogenic noise can occur across any of these modes and may reflect a need to compete with increased background noise, increased vigilance, or a startle response. For example, in the presence of potentially masking signals, humpback whales and killer whales have been observed to increase the length of their songs (Miller *et al.,* 2000; Fristrup *et al.,* 2003) or vocalizations (Foote *et al.,* 2004), respectively, while North Atlantic right whales have been observed to shift the frequency content of their calls upward while reducing the rate of calling in areas of increased anthropogenic noise (Parks *et al.,* 2007). Fin whales have also been documented to lower the bandwidth, peak frequency, and center frequency of their vocalizations in the presence of increased background noise from large vessels (Castellote *et al.,* 2012). Other alterations to communication signals have also been observed. For example, gray whales, in response to playback experiments that exposed them to vessel noise, have been observed to increase their vocalization rate and produce louder signals during periods of increased outboard engine noise (Dahlheim and Castellote, 2016). Alternatively, in some cases, animals may cease sound production during the production of aversive signals (Bowles *et al.,* 1994; Wisniewska *et al.,* 2018).

Under certain circumstances, marine mammals that experience significant masking may also be impaired in maximizing their performance, survival fitness, and reproductive fitness. Therefore, when the coincident (masking) sound is human-made, it may be considered harassment if it disrupts or alters critical behaviors. It is important to distinguish TTS and PTS, which persist after the sound exposure, from masking, which occurs during the sound exposure. Because masking (without resulting in TS) is not associated with abnormal physiological function, it is not considered a physiological effect but rather a potential behavioral effect (though not necessarily one associated with harassment). Therefore, under certain circumstances, marine mammals whose acoustic sensors or environments are severely masked could also be impaired in maximizing their fitness performance for survival and reproduction.

Airborne Acoustic Effects

Pinnipeds near the project site could be exposed to airborne sounds associated with construction activities, depending on their distance from the activities, potentially leading to behavioral harassment. Airborne noise would primarily be an issue for pinnipeds swimming or hauled out near the project site, within the range of noise levels above the airborne acoustic harassment criteria. However, sightings of Steller sea lions, California sea lions, harbor seals, and northern elephant seals are lower during the late fall and winter months when in-water work would occur (State Parks, 2026). Cetaceans are not expected to be exposed to airborne sounds that would constitute harassment under the MMPA.

We recognize that pinnipeds in the water may be exposed to airborne sounds that could result in behavioral harassment when they lift their heads above the water or when they haul out. Most likely, airborne sound would cause behavioral responses similar to those discussed above for underwater sound. For instance, anthropogenic sound could cause hauled-out pinnipeds to exhibit changes in their normal behavior, such as a reduction in vocalizations, or to flush from haulouts, temporarily abandon the area, and/or move further from the source. However, these animals would previously have been ''taken'' because of exposure to underwater sound above behavioral harassment thresholds, which are, in all cases, larger than those associated with airborne sound. Thus, the behavioral harassment of these animals is already accounted for in these estimates of potential take. Therefore, we do not believe that authorization of additional incidental take resulting from airborne sound for pinnipeds is warranted, and airborne sound is not discussed further here.

Potential Effects on Marine Mammal Habitat

State Parks' proposed project activities could have localized, temporary impacts on marine mammal habitat, including prey, due to increased in-water noise levels. Increased noise levels may affect the acoustic habitat and adversely affect marine mammal prey in the vicinity of the project areas (see discussion below). Elevated levels of underwater noise would ensonify the project areas where both fishes and mammals occur and could affect foraging success. Additionally, marine mammals may avoid the area during the proposed construction activities; however, any displacement due to noise is expected to be temporary and not to result in long-term effects on individuals or populations.

The total area likely impacted by State Parks' proposed activities is relatively small compared to the available habitat in Puget Sound and beyond. Avoidance by potential prey (*i.e.,* fish) of the immediate areas due to increased noise is possible. The duration of fish and marine mammal avoidance of this area after construction stops is unknown, but a rapid return to normal recruitment, distribution, and behavior is anticipated. Any behavioral avoidance by fish or marine mammals of either disturbed area would still leave significant foraging habitat nearby.

The proposed projects would occur within the same footprint as the existing marine infrastructure at each of the four State Parks. Most marine mammals do not generally use the relatively shallow areas within the footprint of each project area. Although temporary, intermittent, and short-term habitat alteration may result from increased noise levels during the proposed construction activities, the potential effects on marine mammal habitat would be limited to temporary displacement from pile removal and installation noise, and effects on prey species would be similarly limited in time and space.

Water Quality

A temporary, localized reduction in water quality would occur due to in-water construction activities. Most of this effect would occur during the installation and removal of piles when the bottom sediments are disturbed. The installation and removal of piles would disturb the bottom sediments and may temporarily increase suspended sediment in the project area. During pile extraction, sediment attached to the pile moves vertically through the water column until gravity causes it to slough off. The small resulting sediment plume is expected to settle out of the water column within a few hours. Studies of the effects of turbid water on fish (marine mammal prey) suggest that suspended sediment concentrations can reach thousands of milligrams per liter before an acute toxic reaction is expected (Burton, 1993). Where necessary, a silt curtain will be used to meet water-quality requirements based on results from water-quality monitoring conducted throughout the in-water pile work.

Impacts on water quality from rock-socket/DTH drilling are expected to be similar to those described for pile driving. Impacts on water quality would be localized and temporary, with negligible impacts on marine mammal habitat. Drilling would have negligible impacts on water quality from sediment resuspension because the system would operate within a casing set into the bedrock. The drill would collect excavated material inside the apparatus,

which would then be lifted to the surface and placed onto a barge for subsequent disposal. Additionally, the contractor would deploy a silt curtain around the pile to contain turbidity from rock-socket or DTH drilling, as necessary.

Effects on turbidity and sedimentation are expected to be short-term, minor, and localized. Following completion of sediment-disturbing activities, suspended sediments in the water column should dissipate and return to background levels quickly in all construction scenarios. Although turbidity in the water column can reduce dissolved oxygen levels and irritate the gills of prey fish in the proposed project areas, turbidity plumes associated with the project would be temporary and localized. Additionally, fish in the proposed project areas would be able to move away from areas where plumes may form. Therefore, it is expected that the impacts on prey fish species from turbidity, and therefore on marine mammals, would be minimal and temporary. In general, the areas likely impacted by the proposed construction activities are relatively small compared to the available marine mammal habitat in Puget Sound.

Potential Effects on Prey

Sound may affect marine mammals by altering the abundance, behavior, or distribution of prey species (*e.g.,* crustaceans, cephalopods, fishes, zooplankton). Marine mammal prey varies by species, season, and location, and for some, it is not well documented. Studies regarding the effects of noise on known marine mammal prey are described here.

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

Fish react to 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 their physiological state, 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 fishes (*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.,* Peña *et al.,* 2013; Wardle *et al.,* 2001; Jorgenson and Gyselman, 2009; Cott *et al.,* 2012). More commonly, though, the impacts of noise on fishes are temporary.

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

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

Zooplankton is a food source for several marine mammal species, as well as a food source for fish that are then preyed upon by marine mammals. Population effects on zooplankton could indirectly affect marine mammals. Data are limited on the effects of underwater sound on zooplankton species, particularly construction-related sound (Erbe *et al.,* 2019). Popper and Hastings (2009) reviewed information on the effects of human-generated sound and concluded that no substantive data are available on whether sound levels from pile driving, seismic activity, or other human-made sources would have physiological effects on invertebrates. Any such effects would be limited to the area very near (1 to 5 m) the sound source and would result in no population effects because of the relatively small area affected at any one time and the reproductive strategy of most zooplankton species (short generation, high fecundity, and very high natural mortality). No adverse impact on zooplankton populations is expected from the specified activities, due in part to their high reproductive capacity and naturally high levels of predation and mortality. Any mortality or impacts would be negligible.

The greatest potential impact on marine mammal prey during construction would occur during impact pile driving and rock-socket/DTH drilling. While vibratory pile driving may elicit behavioral responses in fishes, such as temporary avoidance of the area, it is unlikely to cause injuries to fishes or have persistent effects on local fish populations. However, in-water construction activities would only occur during daylight hours, allowing fish to forage and transit the project area in the evening. Moreover, construction would have minimal permanent and temporary impacts on benthic invertebrate species, which are also a marine mammal prey source.

Potential Effects on Foraging Habitat

State Parks' proposed MFRP projects are not expected to result in any habitat-related effects that could cause significant or long-term negative consequences for individual marine mammals or their populations, since installation and removal of in-water piles would be temporary and intermittent. The total seafloor area affected by pile installation and removal is relatively small compared to the available foraging habitat just outside the project areas, extending into Puget Sound and beyond. Additionally, any behavioral avoidance by fish of the disturbed area would still leave significantly large areas of fish and

marine mammal foraging habitat throughout the rest of Puget Sound. As described in the preceding, the potential for project construction to affect the availability of prey for marine mammals or to meaningfully impact the quality of physical or acoustic habitat is insignificant. Therefore, the impacts of the MFRP projects are not likely to adversely affect marine mammal foraging habitat in the proposed project areas.

In summary, given the relatively small areas being affected, as well as the temporary and mostly transitory nature of the proposed construction activities, any adverse effects from State Parks' activities on prey habitat or prey populations are expected to be minor and temporary. The most likely impact on fishes at the project sites would be temporary avoidance of the area. Any behavioral avoidance by fish in the disturbed areas would still leave significantly large areas of fish and marine mammal foraging habitat in the nearby vicinity. Thus, we preliminarily conclude that the impacts of the specified activities are not likely to have more than short-term adverse effects on any prey habitat or populations of prey species. Further, any impact on marine mammal habitat is not expected to result in significant or long-term consequences for individual marine mammals or to contribute to adverse impacts on their populations.

Estimated Take of Marine Mammals

This section provides an estimate of the number of incidental takes proposed for authorization under the regulations, which would 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 predominantly be by Level B harassment, as the use of acoustic sources (*i.e.,* vibratory, impact, and rock-socket/DTH drilling) can potentially disrupt behavioral patterns in individual marine mammals. There is also potential for AUD INJ (Level A harassment) to occur for two species—the harbor porpoise and the harbor seal. However, the proposed mitigation and monitoring measures are expected to minimize the severity of the taking to the extent practicable.

As previously described, no M/SI is anticipated or proposed to be authorized for these MFRP projects. 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 that there is some reasonable potential for marine mammals to be behaviorally harassed or incur some degree of AUD INJ; (2) the area or volume of water that would 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. 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 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 AUD INJ of some degree (equated to Level A harassment).

Level B Harassment

Though significantly driven by the received level, the onset of behavioral disturbance from anthropogenic noise exposure is also informed to varying degrees by other factors. These factors are related to the source or exposure context (*e.g.,* frequency, predictability, duty cycle, exposure duration, signal-to-noise ratio, distance to the source) and the environment (*e.g.,* bathymetry, other noises in the area, predators in the area). Therefore, the receiving animal's hearing, motivation, experience, demography, life stage, and depth can be difficult to predict (*e.g.,* Southall *et al.,* 2007; Southall *et al.,* 2021; Ellison *et al.,* 2012). Based on available science and the practical need to use a threshold based on a predictable, measurable metric for most activities, NMFS typically uses a generalized acoustic threshold based on the 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 sound pressure levels (RMS SPL) of 120 dB (referenced to 1 micropascal (re 1 µPa)) for continuous (*e.g.,* vibratory pile driving, rock-socket/DTH 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, Level B harassment estimates are based on these behavioral harassment thresholds, potentially including TTS, as TTS is likely to occur at distances from the source that are less than those at which behavioral harassment may occur. TTS of a sufficient degree can manifest as behavioral harassment and reduced hearing sensitivity, and the potential reduction in opportunities to detect important signals (conspecific communication, predators, or prey) may result in behavior patterns that would not otherwise occur.

State Parks' proposed activities include the use of continuous (vibratory pile driving and rock-socket/DTH drilling) and impulsive (impact pile driving and rock-socket/DTH drilling) sources; therefore, the RMS SPL thresholds of 120 and 160 dB re 1 µPa are applicable.

Level A Harassment

NMFS' Updated Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 3.0) (NMFS, 2024) identifies dual criteria to assess AUD INJ (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). It includes updated thresholds and updated weighting functions for each hearing group, provided in table 5. The references, analysis, and methodology used to develop the criteria are described in NMFS' 2024 Updated Technical Guidance, available at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance-other-acoustic-tools.*

Table 5 -- Thresholds Identifying the Onset of Auditory Injury

Hearing Group	AUD INJ Onset Acoustic Thresholds* (Received Level)	
	Impulsive	Non-impulsive
Low-Frequency (LF) Cetaceans	*Cell 1* $L_{pk,flat}$: 222 dB $L_{E,LF,24h}$: 183 dB	*Cell 2* $L_{E,LF,24h}$: 197 dB
High-Frequency (HF) Cetaceans	*Cell 3* $L_{pk,flat}$: 230 dB $L_{E,HF,24h}$: 193 dB	*Cell 4* $L_{E,HF,24h}$: 201 dB
Very High-Frequency (VHF) Cetaceans	*Cell 5* $L_{pk,flat}$: 202 dB $L_{E,VHF,24h}$: 159 dB	*Cell 6* $L_{E,VHF,24h}$: 181 dB
Phocid Pinnipeds (PW) (Underwater)	*Cell 7* $L_{pk,flat}$: 223 dB $L_{E,PW,24h}$: 183 dB	*Cell 8* $L_{E,PW,24h}$: 195 dB
Otariid Pinnipeds (OW) (Underwater)	*Cell 9* $L_{pk,flat}$: 230 dB $L_{E,OW,24h}$: 185 dB	*Cell 10* $L_{E,OW,24h}$: 199 dB

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

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 1 µPa^{2}s. In this table, criteria are abbreviated to better reflect International Organization for Standardization (ISO) standards (ISO, 2017). The subscript "flat" is being included to indicate that peak sound pressures are flat weighted or unweighted within the generalized hearing range of marine mammals underwater (*i.e.*, 7 Hz to 165 kHz). The subscript associated with cumulative sound exposure level criteria 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 criteria could be exceeded in multiple ways (*e.g.*, through varying exposure levels, durations, and duty cycles). When possible, applicants should indicate the conditions under which these criteria would be exceeded.

Ensonified Area

Here, we describe the operational and environmental parameters of the activities used to estimate the area ensonified above acoustic thresholds, including source levels and the transmission-loss coefficient.

The sound field in the project area consists of existing background noise and additional construction noise from the proposed project. Marine mammals are expected to be affected by sound generated by the primary components of the project (*i.e.,* vibratory, impact, and rock-socket/DTH drilling). The source levels assumed for both removal and installation activities are based on reviews of measurements of piles of the same or similar types and dimensions available in scientific literature and from similar coastal construction projects and are presented in table 6. The maximum (underwater) area ensonified is determined by the topography of the project areas within North Puget Sound, including intersecting landmasses that would reduce the overall area of potential impact.

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, bottom composition, and topography. The general formula for underwater TL is:

$$TL = B \times Log_{10}\,(R_1/R_2)$$

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

This formula neglects loss due to scattering and absorption, which is assumed to be zero here. The degree to which underwater sound propagates away from a sound source depends on various factors, most notably water bathymetry and the presence or absence of reflective or absorptive conditions, including in-water structures and sediments. Spherical spreading occurs in a perfectly unobstructed (free field) environment not limited by depth or water surface, resulting in a 6 dB reduction in sound level for each doubling of distance from the source (20*log[range]). Cylindrical spreading occurs in an environment in which sound propagation is bounded by the water surface and sea bottom, resulting in a reduction of 3 dB in sound level for each doubling of distance from the source (10*log[range]). A practical spreading value of 15 is often used under conditions such as at the project sites. In these environments, sound waves repeatedly reflect off the surface and bottom, reflecting an expected propagation environment between

spherical and cylindrical spreading-loss conditions. Practical spreading loss is assumed here.

The intensity of pile-driving sounds is strongly influenced by factors such as pile type, hammer type, and the physical environment in which the work is performed. To calculate the distances to the Level A harassment and the Level B harassment sound thresholds for the methods and piles being used in this project, NMFS used acoustic monitoring data from other locations to develop proxy source levels for the various pile types, sizes, and methods (table 6). Generally, we choose source levels from similar pile types from locations (*e.g.,* geology, bathymetry) similar to the project.

Table 6 -- Underwater proxy sound source levels and references

Pile Driving Method	Pile Diameter (inches)		Distance (m)[1]	Peak	RMS	SELss	Location / Source
	Actual	Proxy					
Continuous							
Vibratory hammer removal (timber)	12–16	N/A	10	N/A	153	N/A	Based on five measured project averages[2]
Vibratory hammer installation (steel)	16, 18	24	10	N/A	162	N/A	Friday Harbor Terminal, WA (Laughlin, 2010a; WSDOT, 2020)
Rock drilling (max)[3] (steel)	16, 18	18	1	N/A	183	N/A	Santa Rosa Island, CA (Dazey *et al.*, 2012)
Impulsive							
Impact hammer installation (steel)[4]	16, 18	18	12	195	169	166	Wahkiakum Ferry Terminal, WA (Laughlin, 2006 *in* WSDOT, 2020)

[1] Hydrophone distance in meters (m) from the source.

[2] NOAA Fisheries analyzed the within- and between-project averages from the following five citations: Caltrans (2020), Greenbusch (2018), Greenbusch (2024), Laughlin (2011), and U.S. Navy (2016).

[3] Since the rock-drilling method will not be decided until the project goes out to bid, either rock-socket drilling or DTH drilling might be used. Therefore, State Parks decided to use the "maximum" rock-socket drilling source level (183 dB RMS) vs. the average rock-socket drilling source level (154 dB RMS) (both from Dazey *et al.*, 2012) vs. the DTH source-level guidance of 167 dB RMS (Heyvaert and Reyff, 2021) to determine the isopleths for this installation method, ensuring coverage for both rock-socket drilling and DTH drilling.

[4] A bubble curtain would be used for attenuation during all impact installations. The Wahkiakum Ferry Terminal project reported attenuated values; therefore, no additional attenuation is applied here.

rms = root mean square; dB peak = peak sound level; SS SEL = single strike sound exposure level

The ensonified area associated with Level A harassment is more technically challenging to predict because it requires considering 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 assumptions in the methods underlying this optional tool, we anticipate that the resulting isopleth estimates are likely to be overestimates to some degree, which may lead to an overestimate of potential take by Level A harassment.

However, this optional tool provides a practical alternative for estimating isopleth distances when more sophisticated modeling methods are unavailable or impractical. For stationary sources such as pile driving, the optional User Spreadsheet tool predicts the distance at which, if a marine mammal remained at that distance for the duration of the activity, it would be expected to incur AUD INJ. The inputs used in the optional User Spreadsheet tool (table 7) and the calculated Level A and Level B

harassment isopleths (table 8) are reported below.

BILLING CODE 3510–22–P

Table 7 -- NMFS user spreadsheet input

	Vibratory Pile Removal	Vibratory Pile Installation	Impact Pile Driving	Rock Drilling (max)
Equipment Type	12–16-inch timber pile	16, 18-in steel pile (24-inch steel proxy)	16, 18-in steel pile	16-in steel pile
Spreadsheet Tab Used	A.1) Vibratory	A.1) Vibratory	E.1) Impact	A.1) Vibratory
Source Level (dB re: 1 µPa)	153 RMS	162 RMS	166 SEL 169 RMS 195 peak	183 RMS
Weighting Factor Adjustment (kHz)	2.5	2.5	2	2.5
Duration to drive a single pile	15 minutes	45 minutes	--	120 minutes
Number of strikes per pile	--	--	400 strikes	--
Number of piles per day	10	8	8	4
Propagation (xLogR)	15	15	15	15
Distance of sound pressure level measurement (m)	10	10	12	1

Table 8 -- Calculated Level A harassment and Level B harassment isopleths (m) and ensonified areas (km^2)

Pile size/type	Level A harassment zone (m/km^2)					Level B harassment zone (m/km^2) (all hearing groups)
	LFC	HFC	VHFC	Phocids	Otariids	
Reid Harbor						
Vib removal 14" timber	10 [0.00]	10 [0.00]	10 [0.00]	10 [0.00]	10 [0.00]	1,585 [0.79]
Vib install 16" steel	36 [0.00]	14 [0.00]	29 [0.00]	46 [0.01]	15 [0.00]	6,310 [1.39]
Impact 16" steel	191 [0.06]	24 [0.00]	295 [0.15]	169 [0.05]	63 [0.01]	48 [0.01]
Rock drilling (max) 16" steel	108 [0.03]	42 [0.01]	88 [0.02]	139 [0.04]	47 [0]	15,849 [2.53]
Prevost Harbor						
Vib removal 14" timber	10 [0.00]	10 [0.00]	10 [0.00]	10 [0.00]	10 [0.00]	1,585 [0.89]
Vib install 16" steel	36 [0.00]	14 [0.00]	29 [0.00]	46 [0.01]	15 [0.00]	6,310 [3.79]
Impact 16" steel	191 [0.07]	24 [0.00]	295 [0.14]	169 [0.06]	63 [0.01]	48 [0.01]
Rock drilling (max) 16" steel	108 [0.03]	42 [0.01]	88 [0.02]	139 [0.05]	47 [0.00]	15,849 [4.85]
Fossil Bay						
Vib removal 16" timber	10 [0.00]	10 [0.00]	10 [0.00]	10 [0.00]	10 [0.00]	1,585 [0.71]
Vib install 16" steel	36 [0.00]	14 [0.00]	29 [0.00]	46 [0.01]	15 [0.00]	6,310 [9.58]
Impact 16" steel	191 [0.09]	24 [0.00]	295 [0.15]	169 [0.07]	63 [0.01]	48 [0.01]
Rock drilling (max) 16" steel	108 [0.03]	42 [0.01]	88 [0.02]	139 [0.05]	47 [0.00]	15,849 [36.38]
Olga Pier						
Vib removal 16" timber	10 [0.00]	10 [0.00]	10 [0.00]	10 [0.00]	10 [0.00]	1,585 [2.46]
Vib install 16" steel	36 [0.00]	14 [0.00]	29 [0.00]	46 [0.01]	15 [0.00]	6,310 [21.24]
Impact 16" steel	191 [0.08]	24 [0.00]	295 [0.16]	169 [0.06]	63 [0.01]	48 [0.01]
Rock drilling (max) 16" steel	108 [0.03]	42 [0.01]	88 [0.02]	139 [0.05]	47 [0.00]	15,849 [43.08]
Bowman Bay						
Vib removal 12" (18" proxy) timber	10 [0.00]	10 [0.00]	10 [0.00]	10 [0.00]	10 [0.00]	1,585 [1.06]
Rosario Pier						
Vib removal 14" timber	10 [0.00]	10 [0.00]	10 [0.00]	10 [0.00]	10 [0.00]	1,585 [1.36]

Note: For all Level A harassment isopleths <10 m, a 10 m physical interaction radius has been applied. Standard rounding has been applied. The ensonified area (km^2) is in brackets.

BILLING CODE 3510–22–C

Marine Mammal Occurrence

In this section, we present information about the occurrence of marine mammals to inform take calculations. For clarity, this information is summarized in tables 9 and 10, which include the density, frequency, likelihood of occurrence, and group size for each marine mammal species for which take is requested. The available data on marine mammal density near the project area includes site-specific and nearby survey information reported by the Navy. Specifically, to calculate take, State Parks used (and we concurred with) density data obtained from the U.S. Navy's Marine Species Density Technical Report, particularly the ''Inland Waters'' and ''Strait of Juan de Fuca and San Juan Islands'' sections (U.S. Department of the Navy, 2019). State Parks also considered the frequency and likelihood of occurrence information based on historical sightings data and seasonal patterns within and around the project areas, derived from a 5-year review of sightings reported by the Orca Network.

To accurately describe species' presence near the action area, marine mammals were categorized as either rare (few confirmed sightings), infrequent (confirmed but irregular sightings), likely (confirmed and consistent sightings throughout the year), or seasonal (confirmed and regular sightings during specific seasons).

BILLING CODE 3510–22–P

Table 9 -- Density, frequency, and likelihood of occurrence of marine mammal species

Species	Density	Project Locations			
		Stuart Island MSP (Reid & Prevost Harbors)	Sucia Island MSP (Fossil Bay)	Olga State Park (Olga Pier)	Deception Pass MSP (Bowman Bay & Rosario Pier)
Minke whale	0.010	Seasonal, Infrequent	Seasonal, Infrequent	Seasonal, Infrequent	Seasonal, Infrequent
Gray whale	0.008	Seasonal, Likely	Seasonal, Likely	Seasonal, Likely	Seasonal, Likely
Transient killer whale	0.004	Seasonal, Likely	Seasonal, Likely	Seasonal, Likely	Seasonal, Likely
Pacific white-sided dolphin	0.110	Rare	Rare	Rare	Rare
Dall's porpoise	0.079	Rare	Rare	Rare	Rare
Harbor porpoise	2.160	Seasonal, Likely	Seasonal, Likely	Seasonal, Likely	Seasonal, Likely
Northern elephant seal	0.003	Seasonal, Rare	Seasonal, Rare	Seasonal, Rare	Seasonal
Harbor seal	0.760	Likely	Likely	Likely	Likely
Steller sea lion	0.003	Seasonal, Likely	Seasonal, Likely	Seasonal, Likely	Seasonal, Likely
California sea lion	0.025	Seasonal, Infrequent	Seasonal, Infrequent	Seasonal, Infrequent	Seasonal, Infrequent

Notes: Rare = Few confirmed sightings; Infrequent = Confirmed, but irregular sightings; Likely = Confirmed and regular sightings of the species in the area year-round; and Seasonal = Confirmed and regular sightings of the species in the area on a seasonal basis. The likelihood of occurrence information is based on a 5-year review of Orca Network sightings. Density data is from the "Inland Waters" and "Strait of Juan de Fuca and San Juan Islands" sections of the U.S. Navy's Marine Species Density Technical Report (U.S. Department of the Navy, 2019).

Table 10 -- Group size and geographic region of marine mammal occurrence

Species	Group Size	Geographic Region	Source / Additional Information
Minke whale	1-3	Salish Sea	Orca Network
Gray whale	1-2	Salish Sea	Orca Network
Transient killer whale	4-6	Salish Sea - 4; Puget Sound - 6	Houghton *et al.*, 2015; Houghton, 2012; pers. comm. in the U.S. Navy's Marine Structure Maintenance LOA Application (2017)
Pacific white-sided dolphin	10-200	Strait of Georgia	The Whale Trail; one group of 100-200 increasingly seen in the Strait of Georgia
Dall's porpoise	1-3; up to 25	Salish Sea	U.S. Navy's Marine Structure Maintenance LOA Application (2017)
Harbor porpoise	1.9	San Juan Islands	Raum-Suryan and Harvey, 2012; Anderson *et al.*, 2023
Northern elephant seal	2-10	Puget Sound	Jeffries, 2012; pers. comm. in the U.S. Navy's Marine Structure Maintenance LOA Application (2017); no haulouts in the San Juan Islands
Harbor seal	1-500 at haulouts	Puget Sound	The Whale Trail; inland waters are not breeding grounds; adult males are usually solitary
Steller sea lion	1-2 to <100 at haulouts	Salish Sea	Jeffries, 2012; pers. comm. in the U.S. Navy's Marine Structure Maintenance LOA Application (2017)
California sea lion	1	Salish Sea	Jeffries *et al.*, 2000

BILLING CODE 3510–22–C

Take Estimation

In this section, we describe how the information provided above is synthesized to produce a quantitative estimate of the take that could occur and is proposed for authorization. NMFS carefully considered all information and analyses the applicant presented, as well as information in recent IHAs and monitoring reports for projects elsewhere in Puget Sound.

The number of marine mammals that may be exposed to noise exceeding harassment thresholds was determined by calculating the ensonified area for each source, pile type, and pile size within each marine mammal hearing group at each of the six project locations.

The potential for Level A and Level B harassment exposures was calculated by using the following equation:

Exposure estimate = density × ensonified area (km^2) × days of pile removal/installation (per activity and at each location)

Standard rounding was applied at the end to all calculations.

As shown in table 11, State Parks calculated exposure estimates for Level A and Level B harassment for all 10 species for each year of the MFRP, and NMFS agrees with these estimates (see tables 13–16 from State Parks' IHA application). Not all animals passing through any of the six project areas are expected to be exposed to noise levels equivalent to Level A or Level B harassment. When considering species density within the San Juan Islands and Deception Pass, multiplied by the Level A harassment ensonified area, and further multiplied by the number of in-water days for each potential pile driving or removal activity at each site, the calculated Level A harassment exposures were determined to be zero for all species except the harbor porpoise (four Level A harassment exposures across all 5 years), which has the highest density of any species that are likely to occur in any of the project areas. Level B harassment exposures were similarly calculated for all 10 species and are included in table 11.

Table 11 -- Calculated Level A and Level B harassment exposure estimates by species and by year

Common name	Stock	Calculated Level A Harassment Exposures					Calculated Level B Harassment Exposures				
		Yr 1	Yr 2	Yrs 3 or 4[1]	Yr 5	Total	Yr 1	Yr 2	Yrs 3 or 4[1]	Yr 5	Total
Minke whale	Eastern N. Pacific	0	0	0	0	0	0	2	0	4	6
Gray whale	Eastern N. Pacific	0	0	0	0	0	0	2	0	3	5
Killer whale	Transient	0	0	0	0	0	0	1	0	1	2
Pacific white-sided dolphin	CA/OR/WA	0	0	0	0	0	4	29	0	33	66
Dall's porpoise	CA/OR/WA	0	0	0	0	0	3	21	0	25	49
Harbor porpoise	WA Inland Waters	1	2	0	1	4	79	525	6	620	1,230
Northern elephant seal	California Breeding	0	0	0	0	0	0	1	0	1	2
Harbor seal	WA Northern Inland Waters	0	0	0	0	0	29	187	3	219	438
Steller sea lion	Eastern U.S.	0	0	0	0	0	0	0	0	1	1
California sea lion	U.S.	0	0	0	0	0	0	6	0	8	14

[1]Because the timing of construction is uncertain, estimated exposures would occur either during years 3 or 4 of the project.

Using the calculated Level A and Level B harassment exposure estimates as a basis (table 11), State Parks then considered the size of the animals, the species' frequency and likelihood of occurrence in the project areas (table 9), and the monitoring zones for each project location. Additionally, State Parks considered the proximity of pinniped haulouts to certain sites, the potential for large group sizes of certain species (table 10), and the cryptic nature of both harbor porpoises and harbor seals, which affects their detectability. Based on these factors, State Parks modified their take requests for each year of the MFRP (tables 12 and 13). For example, State Parks increased its request for the number of Level A takes for harbor porpoises and added a request for Level A takes for harbor seals (see table 12), although no takes were originally calculated (see table 11). State Parks also considered the aforementioned factors and decided, in some instances, to increase its request for Level B takes.

Based on the best available science, NMFS generally finds that State Parks' estimates of the types and amounts of take for each species and each project site are a reasonable representation of the amount of take that could occur from the six proposed projects. Table 13 below summarizes the number of takes by Level A harassment and/or Level B harassment, and the maximum annual proposed authorized takes as a percentage of stock abundance.

Table 12 -- Proposed authorized incidental takes by Level A harassment and Level B harassment by species and by year

Common name	Stock	Proposed Level A Harassment Authorized Takes					Proposed Level B Harassment Authorized Takes				
		Yr 1	Yr 2	Yrs 3 or 4[1]	Yr 5	Total	Yr 1	Yr 2	Yrs 3 or 4[1]	Yr 5	Total
Minke whale	Eastern N. Pacific	0	0	0	0	0	1	2	0	3	6
Gray whale	Eastern N. Pacific	0	0	0	0	0	1	2	0	3	6
Killer whale	Transient	0	0	0	0	0	0	30	0	30	60
Pacific white-sided dolphin	CA/OR/WA	0	0	0	0	0	20	50	0	50	120
Dall's porpoise	CA/OR/WA	0	0	0	0	0	20	50	0	50	120
Harbor porpoise	WA Inland Waters	5	10	0	10	25	250	550	10	650	1,460
Northern elephant seal	California Breeding	0	0	0	0	0	20	5	5	5	35
Harbor seal	WA Northern Inland Waters	5	10	0	5	20	150	250	10	300	710
Steller sea lion	Eastern U.S.	0	0	0	0	0	0	0	0	10	10
California sea lion	U.S.	0	0	0	0	0	10	10	0	15	35

[1]Because the timing of construction is uncertain, estimated exposures would occur either during years 3 or 4 of the project.

Table 13 -- Total proposed authorized incidental takes by Level A harassment and Level B harassment for the 5-year effective period of this LOA, and as a maximum annual percentage of stock abundance

Species	Stock	Total Level A	Total Level B	Total Level A + Level B	Maximum Annual Percent of Stock Abundance
Minke whale	Eastern N. Pacific	0	6	6	0.00
Gray whale	Eastern N. Pacific	0	6	6	0.00
Killer whale	Transient	0	60	60	0.09
Pacific white-sided dolphin	CA/OR/WA	0	120	120	0.00
Dall's porpoise	CA/OR/WA	0	120	120	0.00
Harbor porpoise	WA Inland Waters	25	1,460	1,485	0.06
Northern elephant seal	California Breeding	0	35	35	0.00
Harbor seal	WA Northern Inland Waters	20	710	730	0.02
Steller sea lion	Eastern U.S.	0	10	10	0.00
California sea lion	U.S.	0	35	35	0.00

Proposed Mitigation

In order to promulgate a rulemaking under section 101(a)(5)(A) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to the activity, and other means of effecting the least practicable impact on the species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of the species or stock for taking for certain subsistence uses (latter not applicable for this action). NMFS regulations require applicants for incidental take authorizations to include information about the availability and feasibility (economic and technological) of equipment, methods, and the 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 on 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 would be effective if implemented (probability of accomplishing the mitigating result if implemented as planned), the likelihood of effective implementation (probability implemented as planned); and,

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

The mitigation requirements described in the following were proposed by State Parks in their adequate and complete application or are the result of subsequent coordination between NMFS and State Parks. State Parks has agreed that all the mitigation measures are practicable. As required by the MMPA, NMFS concurred that these measures are sufficient to achieve the least practicable adverse impact on the affected marine mammal species or stocks and their habitat. NMFS describes these below as proposed mitigation requirements and has included them in the proposed regulations.

In addition to the measures described later in this section, State Parks would follow these general mitigation measures:

- A copy of any issued LOA must be in the possession of State Parks, its designees, and work crew personnel operating under the authority of this LOA.
- Authorized take, by Level A harassment and Level B harassment only, would be limited to the species and numbers listed in table 13.
- The taking by serious injury or death of any marine mammal species listed in table 13 or the taking of any other marine mammal species would be prohibited and may result in the modification, suspension, or revocation of the incidental take regulation and associated LOA, if issued. Any taking exceeding the authorized amounts listed in table 13 would be prohibited and may result in the modification, suspension, or revocation of the incidental take regulation and associated LOA, if issued.
- State Parks must ensure that construction supervisors and crews, the monitoring team, and relevant State Parks staff are trained prior to the start of activities subject to the LOA, so that responsibilities, communication procedures, monitoring protocols, and operational procedures are clearly understood. New personnel joining during the project must be trained prior to commencing work.

Additionally, the following mitigation measures apply to State Parks' in-water construction activities:

Establishment of Shutdown Zones

State Parks would establish shutdown zones with radial distances as identified in table 14 for all in-water construction 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) to minimize potential instances of AUD INJ and more severe behavioral disturbances by delaying the start of an activity if marine mammals are near the activity.

If a marine mammal is observed entering or within the shutdown zones indicated in table 14, pile driving activity must be delayed or halted. If pile driving is delayed or halted due to the presence of a marine mammal, the activity may not commence or resume until either the animal has voluntarily left the area and been visually confirmed beyond the shutdown zone or 15 minutes have passed without re-detection of the animal.

Pile-driving supervisors and crews, Protected Species Observers (PSOs), and relevant State Parks staff must avoid direct physical interaction with marine mammals during construction activities. If a marine mammal comes within 10 m of such activity, operations must cease, and vessels must reduce speed to the minimum level required to maintain steerage and safe working conditions, as necessary to avoid direct physical interaction.

BILLING CODE 3510–22–P

Table 14 -- Proposed shutdown zones and Level B harassment zones

Site, Activity, Pile Size/Type	Minimum Level A Shutdown Zones (m)					Level B Harassment Zones (m) (all hearing groups)
	LFC Minke, Gray	**HFC** Transient, PWSD	**VHFC** Dall's, Harbor porpoise	**PW** NOES, Harbor seal	**OW** Steller, CASL	
Reid Harbor						
Vib removal 12"–16" timber	10	10	10	10	10	1,590
Vib install 16", 18" steel	40	20	30	50	20	6,310
Impact 16", 18" steel	200	30	300	170	70	50
Rock drilling (max) 16", 18" steel	110	50	90	140	50	15,850
Prevost Harbor						
Vib removal 12"–16" timber	10	10	10	10	10	1,590
Vib install 16", 18" steel	40	20	30	50	20	6,310
Impact 16", 18" steel	200	30	300	170	70	50
Rock drilling (max) 16", 18" steel	110	50	90	140	50	15,850
Fossil Bay						
Vib removal 12"–16" timber	10	10	10	10	10	1,590
Vib install 16", 18" steel	40	20	30	50	20	6,310
Impact 16", 18" steel	200	30	300	170	70	50
Rock drilling (max) 16", 18" steel	110	50	90	140	50	15,850
Olga Pier						
Vib removal 12"–16" timber	10	10	10	10	10	1,590
Vib install 16", 18" steel	40	20	30	50	20	6,310
Impact 16", 18" steel	200	30	300	170	70	50
Rock drilling (max) 16", 18" steel	110	50	90	140	50	15,850
Bowman Bay						
Vib removal 12" timber pile	10	10	10	10	10	1,590
Rosario Pier						
Vib removal 14" timber pile	10	10	10	10	10	1,590

Note: LFC = low-frequency cetacean; HFC = high-frequency cetacean; VHFC = very high-frequency cetacean; PW = phocid (in-water); OW = otariid (in-water); Transient = Transient killer whale; PWSD = Pacific white-sided dolphin; NOES = Northern elephant seal; CASL = California sea lion.

BILLING CODE 3510–22–C

Pre- and Post-Activity Marine Mammal Monitoring

State Parks would employ PSOs and establish monitoring locations as described in the Monitoring Plans and LOA. Monitoring of pile-driving activities (conducted only during daylight hours) would take place from 30 minutes prior to the initiation of pile

driving activity (*i.e.,* pre-start clearance monitoring) through 30 minutes post-completion of pile driving activity. Additionally, monitoring would be conducted for 30 minutes whenever a break in the specified activity (*i.e.,* vibratory pile driving/removal, impact pile driving, rock-socket drilling, or DTH drilling) occurs for 30 minutes or longer. Pre-start clearance monitoring would be conducted during periods of sufficient visibility for the lead PSO to determine that the shutdown zones indicated in table 14 are clear of marine mammals.

Soft Start

State Parks would use soft-start techniques when using impact pile driving. Soft start requires contractors to provide an initial set of three strikes at reduced energy, followed by a 30-second waiting period, then two subsequent sets of reduced energy strikes. A soft start would be implemented at the start of each day's impact pile driving and at any time following its cessation for a period of 30 minutes or longer. Soft-start procedures provide additional protection for marine mammals by giving them a warning and/or a chance to leave the area before the hammer operates at full capacity.

Noise Attenuation System

State Parks would use a bubble curtain during impact pile driving. The bubble curtain would be operated as necessary to achieve optimal performance. At a minimum, the bubble curtain would distribute air bubbles around 100 percent of the piling circumference for the full depth of the water column, the lowest bubble ring would be in contact with the substrate for the full circumference of the ring, and the weights attached to the bottom ring would ensure 100 percent substrate contact. No parts of the ring or other objects would prevent full substrate contact. In addition, air flow to the bubblers would be balanced around the circumference of the pile.

In summary, based on our evaluation of State Parks' proposed mitigation 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 promulgate a rulemaking for an activity, section 101(a)(5)(A) 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 would 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 to both compliance and ensuring 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.

The monitoring and reporting requirements described in the following were proposed by State Parks in its adequate and complete application and/or are the result of subsequent coordination between NMFS and State Parks. State Parks has agreed that all the requirements are practicable. NMFS describes these below as proposed requirements and has included them in the proposed regulations.

Visual Monitoring

State Parks would submit a Marine Mammal Monitoring and Mitigation Plan (4MP; Plan) to NMFS for approval at least 90 calendar days before the start of construction and, if approved, abide by the Plan. Monitoring must be conducted by qualified, NMFS-approved PSOs, in accordance with the following conditions:

- PSOs would be independent from State Parks 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 ITA or letter of concurrence;
- Other PSOs may substitute relevant experience, education (a degree in biological science or a related field), or training for prior experience performing the duties of a PSO during construction activity pursuant to an ITA issued by NMFS;
- Where a team of three or more PSOs is required, a lead observer or monitoring coordinator would be designated. The lead observer would have prior experience performing the duties of a PSO during construction activity pursuant to an ITA or Letter of Concurrence issued by NMFS; and
- PSOs would be approved by NMFS prior to beginning any activity subject to the LOA.

State Parks would establish monitoring locations as described in State Parks' 4MP (see Appendix C of State Parks' application and the monitoring plans for each of the six project locations), in accordance with the following conditions:

- For all pile-driving activities, a minimum of one PSO would be assigned to each active vibratory pile removal and impact pile-driving location to monitor the shutdown zones;
- Three PSOs would be assigned to each active vibratory pile-driving location;
- Four PSOs would be assigned to each active rock-socket drilling and DTH drilling location;
- PSOs would record all observations of marine mammals, regardless of distance from the pile being driven, as well as the additional data indicated in any issued LOA; and
- PSOs would contact the Orca Network by phone or via social media (*e.g.,* its Facebook page) before any pile-driving activities to receive a daily update on killer whale and large cetacean sightings.

Reporting

State Parks would be required to submit an annual draft summary report

on all construction activities and marine mammal monitoring results to NMFS within 90 calendar days following the end of monitoring for all in-water construction, or 90 calendar days prior to a requested date of issuance of any future incidental take authorization for projects at the same location, whichever comes first. The draft comprehensive 5-year summary report would also be submitted to NMFS within 90 calendar days of the end of year 5 of the project. The reports must detail the monitoring protocol and summarize the data recorded during monitoring, including an overall description of construction work completed, a narrative regarding marine mammal sightings, and associated raw PSO data sheets (in electronic spreadsheet format). Specifically, the report must include at a minimum:

- Dates and times (beginning and end) of all marine mammal monitoring;
- Activities occurring during each daily observation period, including: (a) the number and type of piles that were driven or removed and the method (*i.e.,* impact, vibratory, rock-socket drilling, and DTH drilling); and (b) the total duration of driving time for each pile and/or number of strikes for each pile;
- PSO locations during marine mammal monitoring; and
- Environmental conditions during monitoring periods (at the beginning and end of PSO shift and whenever conditions change significantly), including Beaufort sea state and any other relevant weather conditions, including cloud cover, fog, sun glare, and overall visibility to the horizon, and estimated observable distance.

Upon observation of a marine mammal, the following minimum information must be reported:

- Name of PSO who sighted the animal(s) and PSO location and activity at the time of the sighting;
- Time of the 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 bearing of each observed marine mammal relative to the pile being driven or removed for each sighting;
- Estimated number of animals (min/max/best estimate);
- Estimated number of animals by cohort (*e.g.,* adults, juveniles, neonates, group composition);
- Animal's closest point of approach and estimated time spent within the estimated harassment zone(s);
- 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 estimated harassment zones, by species; and
- Summary information about implementation of any mitigation (*e.g.,* shutdowns and delays), a description of specified actions that ensued, and resulting changes in the behavior of the animal(s), if any.

If no comments are received from NMFS within 30 calendar days after the submission of the draft summary report, the draft report will constitute the final report. If State Parks receives comments from NMFS, a final summary report addressing NMFS' comments will be submitted within 30 calendar days after receipt of the comments. The reports must contain the data as specified in the issued LOA.

Reporting Injured or Dead Marine Mammals

In the event that personnel involved in State Parks' activities discover an injured or dead marine mammal, State Parks would report the incident to the NMFS Office of Protected Resources and to the NMFS West Coast regional stranding network as soon as feasible. If the specified activity clearly caused the death or injury, State Parks would immediately cease the specified activities until NMFS is able to review the circumstances of the incident. State Parks would not resume their activities until notified by NMFS. The report would include the following information:

- Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);
- Species identification (if known) or description of the animal(s) involved;
- Condition of the animal(s) (including carcass condition if the animal is dead);
- Observed behaviors of the animal(s), if alive;
- Photographs or video footage of the animal(s) (if equipment is available); and
- General circumstances under which the animal was discovered.

Negligible Impact Analysis and Determination

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

To avoid repetition, the discussion of our analysis applies to all the species listed in table 13, given that the anticipated effects of these activities on these different marine mammal stocks are expected to be similar. There is little information about the nature or severity of the impacts, or the size, status, or structure of any of these species or stocks that would lead to a different analysis for this activity.

NMFS has identified key factors that may be used to assess the level of analysis required to determine whether potential impacts associated with a specified activity are 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 on the species or stock, and the status of the species or stock. The potential effects of the specified activities on all the species listed in table 13 are discussed below.

Pile driving associated with State Parks' MFRP, as outlined previously, has the potential to disturb or displace marine mammals. Specifically, the

specified activities may result in take, in the form of Level B harassment and, for harbor porpoises and harbor seals, Level A harassment, from underwater pile-driving sounds. Potential takes could occur if marine mammals are present in zones ensonified above the thresholds for Level A harassment or Level B harassment, identified above, during these activities.

No serious injury or mortality is expected over the 5-year LOA period, even in the absence of required mitigation measures, given the nature of the activities. Further, no take by Level A harassment is anticipated for 11 marine mammal species due to the rarity of the species near the project area and/or the application of proposed mitigation measures, such as shutdown zones that encompass the Level A harassment zones for these species (see Proposed Mitigation section).

Level A harassment takes have been proposed for two species (harbor porpoise and harbor seal) that may occur in the project area. These takes account for the possibility that an animal could enter and remain within the area between a Level A harassment zone and the shutdown zone for long enough to be taken by Level A harassment. Additionally, in some cases, this would account for the possibility that an animal could enter a shutdown zone without detection, given the various obstructions along the shoreline, and remain in the Level A harassment zone long enough to be taken by Level A harassment before being observed and a shutdown occurring. That said, any take by Level A harassment is expected to arise from, at most, a small degree of AUD INJ (*i.e.,* minor degradation of hearing capabilities within regions of hearing that align most completely with the energy produced by impact pile driving, 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 to incur any more than a small degree of AUD INJ.

Additionally, the amount of take by Level A harassment proposed for authorization is low. As stated above, for 11 marine mammal species, NMFS anticipates no take by Level A harassment over the duration of State Parks' planned activities; NMFS expects no more than 25 takes by Level A harassment for the harbor porpoise and 20 takes by Level A harassment for harbor seals. However, in both species, if hearing impairment occurs, the affected animal is most likely to lose only a few dB in hearing sensitivity. Due to the small degree anticipated, any AUD INJ potentially incurred would not be expected to affect the reproductive success or survival of any individual, much less result in adverse impacts on the species or stock.

Additionally, some individuals that are behaviorally harassed could also simultaneously incur some small degree of TTS for a short duration of time. However, because the hearing sensitivity of those that incur TTS is expected to fully recover within minutes to hours, it is unlikely that the brief hearing impairment would impact their long-term ability to forage and communicate with conspecifics. Therefore, it would not likely impact the reproduction or survival of any marine mammal, nor would it likely impact the recruitment or survival rates of the species or stock.

Effects on individuals taken by Level B harassment in the form of behavioral disruption are expected to be mild, short-term, and temporary. Based on reports in the literature as well as monitoring of other similar activities, effects would likely be limited to reactions such as avoidance, increased swimming speeds, increased surface time, or decreased foraging (if such activity were occurring) (*e.g.,* Thorson and Reyff, 2006). Most likely, individuals would move away from the sound source and temporarily avoid the area where pile driving is occurring. We expect that any avoidance of the project areas by marine mammals will be temporary and that any marine mammals that avoid the project areas during construction will not be permanently displaced. Short-term avoidance of the project areas and the energetic impacts of interrupted foraging or other important behaviors are unlikely to affect the reproduction or survival of individual marine mammals, and the effects of behavioral disturbance on individuals are not likely to accrue in a manner that would affect the rates of recruitment or survival of any affected stock.

The potential for harassment is minimized by implementing the proposed mitigation measures. During all impact driving, soft-start procedures and monitoring of established shutdown zones shall be required, significantly reducing the possibility of injury. Given sufficient notice through soft start (for impact driving), marine mammals are expected to move away from an irritating sound source before it becomes potentially injurious. To reduce in-water noise, vibratory pile driving would be the primary installation method for the project, and impact hammers would be used only to seat pile tips into fractured bedrock ahead of hammering or drilling operations or if the material is too dense to penetrate with a vibratory hammer.

The project is also not expected to have significant adverse effects on the habitats of affected marine mammals. The project activities would not modify existing marine mammal habitat for a significant amount of time. The activities may cause a low level of turbidity in the water column and some fish may 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.

There is a BIA for feeding gray whales that overlaps with the project area, but it is active from February to June (Calambokidis *et al.,* 2024), which overlaps very minimally with the planned annual project periods (August 1 to February 15). This indicates that the projects' impact on gray whales would be minimal or nonexistent and therefore would not affect their reproduction or survival.

Finally, it is unlikely that minor noise effects in small, localized areas of habitat would significantly affect the reproduction or survival of individual species, let alone the annual recruitment or survival rates of these stocks. Taken together, we believe that these factors, along with available evidence from similar activities, indicate that the potential effects of the specified activities would be only minor and short-term for individuals. The specified activities are not expected to impact recruitment or survival rates and therefore will not cause population-level impacts.

In summary, as discussed above, the following factors mainly support our initial determination that the impacts from these MFRP activities are unlikely to adversely affect any species or stocks through effects on annual recruitment or survival rates:

- No serious injury or mortality is anticipated or proposed for authorization;
- No take by Level A harassment is anticipated or proposed for 8 of the 10 species;
- Take by Level A harassment for two species would be very small amounts and be of low severity;
- Proposed takes by Level B harassment would be primarily in the

form of behavioral disturbance, leading to avoidance of the project areas around where pile driving is occurring, with some low-level TTS that may limit the detection of acoustic cues for relatively brief amounts of time in relatively confined footprints affecting their populations;

- The lack of anticipated significant or long-term negative effects on marine mammal habitat;
- 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 likely to cause significant or long-term effects on individuals or lead to adverse impacts on their populations;
- The ensonified areas are small relative to the overall habitat ranges of all species and stocks, and overlap with known areas of important habitat is minimal; and
- State Parks would implement mitigation measures, including visual monitoring and shutdown zones, to minimize the number of marine mammals exposed to injurious levels of sound.

Based on the analysis contained herein of the likely effects of the specified MFRP activities 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 activities 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 section 101(a)(5)(A) and (D) of the MMPA for specified activities other than military readiness activities. The MMPA does not define small numbers, so, in practice, when estimated numbers are available, NMFS compares the maximum number of individuals taken in any year to the most appropriate abundance estimate for the relevant species or stock to determine whether an authorization is limited to small numbers of marine mammals. When the predicted maximum annual number of individuals to be taken is fewer than one-third of the species or stock abundance, the take is considered a small number. Additionally, other qualitative factors may be considered in the analysis, such as the temporal or spatial scale of the activities.

Table 13 shows the number of animals that could be exposed to the received noise levels that could cause Level A and/or Level B harassment for the proposed MFRP project in North Puget Sound. We propose to authorize the incidental take of 10 marine mammal species (10 stocks) over the 5-year project period. The maximum annual number of takes proposed for authorization, which occurs in year 5 of the LOA, is less than 1 percent across all 10 species.

Based on the analysis contained herein of the proposed activities (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 when issuing incidental take authorizations, NMFS consults internally whenever we propose to authorize the take of ESA-listed species.

No incidental take of ESA-listed species is proposed for authorization or expected to result from the proposed MFRP projects, nor will the proposed action destroy or adversely modify any designated critical habitat. Therefore, NMFS has determined that formal consultation under section 7 of the ESA is not required for this action.

Proposed Regulations

As a result of these preliminary determinations, NMFS proposes to promulgate regulations that allow for the authorization of take, by Level A harassment and Level B harassment, incidental to in-water construction activities in North Puget Sound, WA, associated with State Parks' MFRP for a 5-year period from September 1, 2026, through August 31, 2031, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated. A draft of the proposed LOA can be found at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-construction-activities.*

Request for Information

NMFS requests that interested persons submit comments, information, and suggestions regarding State Parks' request and the proposed regulations (see **ADDRESSES**). All comments will be reviewed and evaluated as we prepare a final rule and make final determinations on whether to issue the requested authorization. This proposed rule and referenced documents provide all environmental information relating to our proposed action for public review.

Classification

Executive Order 12866

The Office of Management and Budget has determined that this proposed rule is not significant for purposes of Executive Order 12866.

Regulatory Flexibility Act (RFA)

Pursuant to section 605(b) of the RFA (5 U.S.C. 601 *et seq.*), the Senior Lead Counsel for Regulation of the Department of Commerce has certified to the Chief Counsel for Advocacy of the Small Business Administration that this proposed rule, if adopted, would not have a significant economic impact on a substantial number of small entities. State Parks is a state governmental program focused on improving state parks throughout Washington. State Parks is the sole entity subject to the requirements of the proposed rule, and it is not a small governmental jurisdiction, small organization, or small business, as defined by the RFA, because it is a department of the state government. Because of this certification, a regulatory flexibility analysis is not required, and none has been prepared.

Paperwork Reduction Act

This proposed rule contains a collection-of-information requirement subject to the provisions of the Paperwork Reduction Act (PRA). Notwithstanding any other provision of law, no person is required to respond to, nor shall a person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA unless that collection of information displays a currently valid OMB control number. These requirements have been approved by OMB under control number 0648–

0151 and include applications for regulations, subsequent LOAs, and reports.

List of Subjects

Acoustics, Administrative practice and procedure, Construction, Marine mammals, Mitigation and monitoring requirements, Reporting requirements, Wildlife.

Dated: August 4, 2026.

Samuel D. Rauch III,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

For reasons set forth in the preamble, NMFS proposes to amend 50 CFR part 217 as follows:

PART 217—REGULATIONS GOVERNING THE TAKE OF MARINE MAMMALS INCIDENTAL TO SPECIFIED ACTIVITIES

■ 1. The authority citation for part 217 continues to read as follows:

Authority: 16 U.S.C. 1361 *et seq.,* unless otherwise noted.

■ 2. Add Subpart AAA, consisting of §§ 217.520 through 217.528, to read as follows:

Subpart AAA—Taking Marine Mammals Incidental to the Washington State Parks and Recreation Commission's Marine Facilities Replacement Program in North Puget Sound, Washington

Sec.

Subpart AAA—Taking Marine Mammals Incidental to the Washington State Parks and Recreation Commission's Marine Facilities Replacement Program in North Puget Sound, Washington

§ 217.520 Specified activity and specified geographical region.

(a) The incidental taking of marine mammals by the Washington State Parks and Recreation Commission's (State Parks) Marine Facilities Replacement Program (MFRP) may be authorized in a letter of authorization (LOA) only if it occurs at or around the specified state parks in North Puget Sound, WA, incidental to the specified activities outlined in paragraph (b) of this section. Requirements imposed on State Parks in this subpart must be implemented by those persons it authorizes or funds to conduct activities on its behalf.

(b) The specified activities are in-water construction activities associated with the MFRP at six marine facilities at four state parks in North Puget Sound, WA. This includes Reid and Prevost Harbors at Stuart Island Marine State Park, Fossil Bay at Sucia Island Marine State Park, Bowman Bay and Rosario Pier at Deception Pass State Park, and Olga Pier at Olga State Park.

§ 217.521 Effective dates.

Regulations in this subpart are effective from September 1, 2026, until August 31, 2031.

§ 217.522 Permissible methods of taking.

Under an LOA issued pursuant to § 216.106 of this chapter, State Parks and those persons it authorizes or funds to conduct activities on its behalf may incidentally, but not intentionally, take marine mammals within the specified geographical region by harassment associated with the specified activities, provided the activity is in compliance with all terms, conditions, and requirements of the regulations in this subpart and the applicable LOA.

§ 217.523 Prohibitions.

(a) Except for the takings permitted in § 217.522 and authorized by an LOA issued under § 216.106 of this chapter, it is unlawful for any person to do any of the following in connection with the specified activities:

(1) Violate or fail to comply with the terms, conditions, and requirements of this subpart or an LOA issued under this subpart;

(2) Take any marine mammal not specified in such LOA;

(3) Take any marine mammal specified in such LOA in any manner other than as specified;

(4) Take a marine mammal specified in such LOA after NMFS determines such taking results in more than a negligible impact on the species or stocks of such marine mammal; or

(5) Take a marine mammal specified in such LOA after NMFS determines such taking results in an unmitigable adverse impact on the species or stock of such marine mammal for taking for subsistence uses.

(b) [Reserved]

§ 217.524 Mitigation requirements.

(a) When conducting the specified activities identified in § 217.520(b), the mitigation measures contained in this section and any LOA issued under this subpart must be implemented.

(1) A copy of any issued LOA must be in the possession of State Parks, its designees, and work crew personnel operating under the authority of this LOA.

(2) State Parks must ensure that construction supervisors and crews, the monitoring team, and relevant State Parks staff are trained prior to the start of activities subject to the LOA, so that responsibilities, communication procedures, monitoring protocols, and operational procedures are clearly understood. New personnel joining during the project must be trained prior to commencing work.

(3) State Parks must employ Protected Species Observers (PSOs) and establish monitoring locations as described in any issued LOA and the relevant Marine Mammal Monitoring Plan (Monitoring Plan). State Parks must monitor the project area to the maximum extent possible based on the required number of PSOs, the required monitoring locations, and environmental conditions.

(4) Monitoring must take place from 30 minutes prior to initiation of pile driving activity (*i.e.,* pre-start clearance monitoring) through 30 minutes post-completion of pile-driving activity.

(5) Pre-start clearance monitoring must be conducted during periods of visibility sufficient for the lead PSO to determine that the shutdown zones indicated in the LOA are clear of marine mammals. Pile driving may commence following 30 minutes of observation when the determination is made that the shutdown zones are clear of marine mammals.

(6) If a marine mammal is observed entering or within the shutdown zones indicated in the LOA, pile driving activity must be delayed or halted. Pile driving must be commenced or resumed as described in any issued LOA.

(7) If pile driving is delayed or halted due to the presence of a marine mammal, the activity may not commence or resume until either the animal has voluntarily exited and been visually confirmed beyond the shutdown zone indicated in the LOA or 15 minutes have passed without re-detection of the animal.

(8) State Parks must use soft start techniques when impact pile driving. Soft start requires contractors to provide an initial set of three strikes at reduced energy, followed by a 30-second waiting period, then two subsequent sets of reduced energy strikes. A soft start must 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.

(9) State Parks must use a bubble curtain during impact pile driving. The bubble curtain must be operated as necessary to achieve optimal performance. At a minimum, State Parks must adhere to the following performance standards:

(i) The bubble curtain must distribute air bubbles around 100 percent of the piling circumference for the full depth of the water column.

(ii) The lowest bubble ring must be in contact with the substrate for the full circumference of the ring, and the weights attached to the bottom ring shall ensure 100 percent substrate contact. No parts of the ring or other objects shall prevent full substrate contact.

(iii) Air flow to the bubblers must be balanced around the circumference of the pile.

(10) Pile driving activity must be halted (as described in any issued LOA) upon observation of either a species for which incidental take is not authorized or a species for which incidental take has been authorized, but the authorized number of takes has been met, entering or within the harassment zone (as shown in the LOA).

(11) State Parks, construction supervisors and crews, PSOs, and relevant State Parks staff must avoid direct physical interaction with marine mammals during construction activity. If a marine mammal comes within 10 meters of such activity, operations must cease, and vessels must reduce speed to the minimum level required to maintain steerage and safe working conditions, as necessary to avoid direct physical interaction.

(b) [Reserved]

§ 217.525 Requirements for monitoring and reporting.

(a) State Parks must submit a Monitoring Plan to NMFS for approval at least 90 calendar days before the start of construction and abide by the Plan, if approved.

(b) Monitoring must be conducted by qualified, NMFS-approved PSOs, in accordance with the following conditions:

(1) PSOs must be independent from State Parks and have no other assigned tasks during monitoring duties.

(2) At least one PSO must have prior experience performing the duties of a PSO during construction activity pursuant to a NMFS-issued incidental take authorization or letter of concurrence.

(3) Other PSOs may substitute relevant experience, education (a degree in biological science or a related field), or training for prior experience performing the duties of a PSO during construction activity pursuant to an incidental take authorization issued by NMFS.

(4) Where a team of three or more PSOs is required, a lead observer or monitoring coordinator must be designated. The lead observer must have prior experience performing the duties of a PSO during construction activity pursuant to an incidental take authorization or Letter of Concurrence issued by NMFS.

(5) PSOs must be approved by NMFS prior to beginning any activity subject to the LOA.

(c) State Parks must establish monitoring locations as described in the Monitoring Plan. For all pile-driving activities, a minimum of one PSO must be assigned to each active vibratory pile removal and impact pile-driving location to monitor the shutdown zones; three PSOs must be assigned to each active vibratory pile-driving location; and four PSOs must be assigned to each active rock-socket drilling and DTH drilling location.

(d) PSOs must record all observations of marine mammals, regardless of distance from the pile being driven, as well as the additional data indicated in any issued LOA.

(e) PSOs must contact the Orca Network before any pile-driving activities to get a daily update on the latest killer whale and large cetacean sightings.

(f) State Parks must submit a draft annual summary monitoring report on all monitoring conducted during each project year within 90 calendar days of the completion of marine mammal monitoring, or 90 calendar days prior to a requested date of issuance of any future incidental take authorization for projects at the same location, whichever comes first. A draft comprehensive 5-year summary report must also be submitted to NMFS within 90 calendar days of the end of year 5 of the project. The reports must detail the monitoring protocol and summarize the data recorded during monitoring, including an overall description of construction work completed, a narrative regarding marine mammal sightings, and associated raw PSO data sheets (in electronic spreadsheet format). Specifically, the report must include at a minimum:

(1) Dates and times (beginning and end) of all marine mammal monitoring;

(2) Activities occurring during each daily observation period, including: (a) the number and type of piles that were driven or removed and the method (*i.e.,* impact, vibratory, rock-socket drilling, and DTH drilling); and (b) the total duration of driving time for each pile and/or number of strikes for each pile;

(3) PSO locations during marine mammal monitoring; and

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

Upon observation of a marine mammal, the following minimum information must be reported:

(1) Name of PSO who sighted the animal(s) and PSO location and activity at the time of the sighting;

(2) Time of the sighting;

(3) Identification of the animal(s) (*e.g.,* genus/species, lowest possible taxonomic level, or unidentified), PSO confidence in identification, and the composition of the group if there is a mix of species;

(4) Distance and bearing of each observed marine mammal relative to the pile being driven or removed for each sighting;

(5) Estimated number of animals (min/max/best estimate);

(6) Estimated number of animals by cohort (*e.g.,* adults, juveniles, neonates, group composition);

(7) Animal's closest point of approach and estimated time spent within the estimated harassment zone(s);

(8) Description of any marine mammal behavioral observations (*e.g.,* observed behaviors such as feeding or traveling), including an assessment of behavioral responses thought to have resulted from the activity (*e.g.,* no response or changes in behavioral state such as ceasing feeding, changing direction, flushing, or breaching);

(9) Number of marine mammals detected within the estimated harassment zones, by species; and

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

If no comments are received from NMFS within 30 calendar days after submission of the draft summary report, the draft report will constitute the final report. If State Parks receives comments from NMFS, a final summary report addressing NMFS' comments must be submitted within 30 calendar days after receipt of the comments. The reports must contain the data as specified in the issued LOA.

(g) State Parks must submit all PSO data electronically in a format that can

be queried, such as a spreadsheet or database (*i.e.,* digital images of data sheets are not sufficient).

(h) Reporting injured or dead marine mammals:

(1) In the event that personnel involved in the construction activities discover an injured or dead marine mammal, State Parks must report the incident to the NMFS Office of Protected Resources (OPR) and to the NMFS West Coast regional stranding coordinator (1–866–767–6114) as soon as feasible. If the death or injury was clearly caused by the specified activity, State Parks must immediately cease the specified activities until NMFS OPR 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 LOA. State Parks must not resume their activities until notified by NMFS.

(2) The report must include the following information:

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

(ii) Species identification (if known) or description of the animal(s) involved;

(iii) Condition of the animal(s) (including carcass condition if the animal is dead);

(iv) Observed behaviors of the animal(s), if alive;

(v) If available, photographs or video footage of the animal(s); and

(vi) General circumstances under which the animal was discovered.

(3) [Reserved]

§ 217.526 Letters of Authorization.

(a) To incidentally take marine mammals pursuant to these regulations, State Parks must apply for and obtain an LOA.

(b) An LOA, unless suspended or revoked, may be effective for a period of time not to exceed the effective dates of this subpart.

(c) If an LOA expires prior to the end of the effective dates of this subpart, State Parks may apply for and obtain a renewal of the LOA.

(d) In the event of projected changes to the activity or to mitigation and monitoring measures required by an LOA, State Parks must apply for and obtain a modification of the LOA as described in § 217.527.

(e) The LOA must set forth the following information:

(1) Permissible methods of incidental taking;

(2) Means of effecting the least practicable adverse impact (*i.e.,* mitigation) on the species, its habitat, and on the availability of the species for subsistence uses; and

(3) Requirements for monitoring and reporting.

(f) Issuance of the LOA must be based on a determination that the level of taking will be consistent with the findings made for the total taking allowable under this subpart.

(g) Notice of issuance or denial of an LOA must be published in the **Federal Register** within 30 days of a determination.

§ 217.527 Modifications of Letters of Authorization.

(a) An LOA issued under § 216.106 of this chapter and § 217.526 for the specified activities may be modified upon request by State Parks, provided that:

(1) The specified activity and mitigation, monitoring, and reporting measures, as well as the anticipated impacts, are the same as those described and analyzed for this subpart; and

(2) NMFS determines that the mitigation, monitoring, and reporting measures required by the previous LOA were implemented.

(b) For LOA modification by State Parks that includes changes to the specified activity or the mitigation, monitoring, or reporting measures that do not change the findings made for the regulations in this subpart or result in no more than a minor change in the total estimated number of takes (or distribution by species or years), NMFS may publish a notice of proposed LOA in the **Federal Register**, including the associated analysis of the change and solicit public comment before issuing the LOA.

(c) An LOA issued under § 216.106 of this chapter and § 217.526 for the specified activity may be modified by NMFS under the following circumstances:

(1) NMFS may modify the existing mitigation, monitoring, or reporting measures, after consulting with State Parks regarding the practicability of the modifications, if doing so creates a reasonable likelihood of more effectively accomplishing the goals of the mitigation and monitoring measures.

(i) Possible sources of data that could contribute to the decision to modify the mitigation, monitoring, or reporting measures in an LOA include, but are not limited to:

(A) Results from State Parks' monitoring;

(B) Results from other marine mammal and/or sound research or studies; and

(C) Any information that reveals marine mammals may have been taken in a manner, extent, or number not authorized by this subpart or subsequent LOAs; and

(ii) If, through adaptive management, the modifications to the mitigation, monitoring, or reporting measures are substantial, NMFS shall publish a notice of proposed LOA in the **Federal Register** and solicit public comment.

(2) If NMFS determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in an LOA issued pursuant to § 216.106 of this chapter and § 217.526, an LOA may be modified without prior notice or opportunity for public comment. Notification will be published in the **Federal Register** within 30 days of the action.

§ 217.528 [Reserved]

[FR Doc. 2026–16329 Filed 8–10–26; 8:45 am]

BILLING CODE 3510–22–P