



LETTER OF AUTHORIZATION

The U.S. Navy (Navy) and its designees are hereby authorized under section 101(a)(5)(A) of the Marine Mammal Protection Act (MMPA; 16 U.S.C. 1371(a)(5)(A)) to incidentally harass marine mammals incidental to the Naval Magazine Indian Island Ammunition Wharf Maintenance and Pile Replacement Project in Puget Sound, Washington, subject to the provisions of the MMPA and Regulations Governing Taking and Importing Marine Mammals Incidental to U.S. Navy Construction at the Naval Magazine Indian Island Ammunition Wharf, Puget Sound, Washington (50 CFR Part 217 Subpart I) (Regulations).

1. This letter of authorization (LOA) is valid from October 1, 2024, until September 30, 2029.
2. This Authorization is valid only for take incidental to the specified Navy in-water construction activities at the Naval Magazine Indian Island Ammunition Wharf in Puget Sound, Washington. Hereafter (unless otherwise specified) the term “in-water construction activities” is used to refer to impact and vibratory pile removal.
3. General Conditions
 - (a) A copy of this LOA must be in the possession of the Holder of the Authorization (Holder or Navy), its designees and work crew personnel operating under the authority of this LOA.
 - (b) The species and/or stocks authorized for taking are listed in Table 1. Authorized take, by Level A and B harassment, is limited to the species and numbers listed in Table 1.
 - (c) The taking by serious injury or death of any of the species listed in Table 1 or any taking of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this LOA. Any taking exceeding the authorized amounts listed in Table 1 is prohibited and may result in the modification, suspension, or revocation of this LOA.
 - (d) The Holder must ensure that construction supervisors and crews, the Protected Species Observer (PSO) team, and relevant Navy staff are trained prior to the start of all activities subject to this 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.
4. Mitigation Requirements



- (a) The Holder must employ PSOs and establish monitoring locations as described in section 5 of this LOA and in the NMFS-approved Marine Mammal Monitoring Plan. PSOs must monitor designated harassment zones (Table 2) to the maximum extent possible based on daily visibility conditions. Trained PSOs must be placed at the best vantage point(s) practicable to monitor for marine mammals and implement shutdown or delay procedures when applicable through communication with the equipment operator.
- (b) For all pile driving activities, land-based PSOs must be stationed at the best vantage points practicable to monitor for marine mammals and implement shutdown/delay procedures. At least one vessel-based PSO must be employed when practicable. Additional PSOs must be added if warranted by site conditions and/or the level of marine mammal activity in the area.
- (c) The Holder 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.
- (d) 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. Pre-activity monitoring must be conducted for 30 minutes to ensure that the shutdown zone is clear of marine mammals, and pile driving may only commence when PSOs have declared the shutdown zone clear of marine mammals.
- (e) In the event of a delay or shutdown of activity resulting from marine mammals in the shutdown zone, animals must be allowed to remain in the shutdown zone (*i.e.*, must leave of their own volition) and their behavior must be monitored and documented. If a marine mammal is observed within the shutdown zone, a soft start cannot proceed until the animal has left the zone or has not been observed for 15 minutes. Monitoring must occur throughout the time required to drive a pile.
- (f) If work ceases for more than 30 minutes, the pre-activity monitoring of the shutdown zones must commence. A determination that the shutdown zone is clear must be made during a period of good visibility.
- (g) If a marine mammal approaches or enters the shutdown zone, all pile driving activities at that location must be halted. If pile driving is halted or delayed due to the presence of a marine mammal, the activity may not commence or resume until

either the animal has voluntarily left and been visually confirmed beyond the shutdown zone or 15 minutes have passed without re-detection of the animal.

- (h) For all pile driving activity, the Holder must implement shutdown zones with radial distances as identified in Table 2. If a marine mammal comes within or approaches the shutdown zone indicated in Table 2, pile driving activity must cease.
- (i) The Navy must shut down in-water activities when cetaceans are observed approaching or within any harassment zone.
- (j) Pile driving activity must be halted upon observation of a species entering or within the harassment zone for 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.
- (k) The Holder must use soft start techniques when impact pile driving. Soft start requires contractors to provide an initial set of strikes at reduced energy, followed by a 30-second waiting period, then two subsequent reduced-energy strike sets.
- (l) 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.
- (m) The Holder must employ bubble curtain systems during impact driving of 36-in steel piles except under conditions where the water depth is less than 0.67 meters (2 feet) in depth. Bubble curtains must meet the following requirements: Bubble curtains must meet the following requirements:
 - i. The bubble curtain must distribute air bubbles around 100 percent of the piling perimeter for the full depth of the water column.
 - ii. The lowest bubble ring must be in contact with the mudline and/or rock bottom for the full circumference of the ring, and the weights attached to the bottom ring shall ensure 100 percent mudline and/or rock bottom contact. No parts of the ring or other objects shall prevent full mudline and/or rock bottom contact.
 - iii. The bubble curtain must be operated such that there is equal balancing of air flow to all bubblers.

5. Monitoring Requirements

- (a) Marine Mammal monitoring must be conducted in accordance with the conditions in this section and the Marine Mammal Monitoring Plan.
- (b) The Holder must submit a Marine Mammal Monitoring Plan to NMFS for approval at least 90 days before the start of construction and abide by the Plan if approved.
- (c) Monitoring must be conducted by qualified PSOs, in accordance with the following conditions:
 - i. PSOs must be independent of the activity contractor (for example, employed by a subcontractor) and have no other assigned tasks during monitoring periods.
 - ii. 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.
 - iii. Other PSOs may substitute other relevant experience, education (degree in biological science or related field), or training for prior experience performing the duties of a PSO during construction activity pursuant to a NMFS-issued incidental take authorization.
 - iv. One PSO must be designated as lead PSO or monitoring coordinator. The lead PSO must have prior experience performing the duties of a PSO during construction activity pursuant to a NMFS-issued incidental take authorization.
 - v. Where a team of three or more PSOs are required, a lead PSO or monitoring coordinator must be designated. The lead PSO must have prior experience performing the duties of a PSO during construction activity pursuant to a NMFS-issued incidental take authorization.
 - vi. PSOs must be approved by NMFS prior to beginning any activity subject to this LOA.
- (d) PSOs must be trained in marine mammal identification and behaviors.
- (e) The Holder must monitor the Level B harassment zones (areas where SPLs are equal to or exceed the 160 dB root-mean-squared (rms) threshold for impact

driving and the 120 dB rms threshold during vibratory pile driving) to the maximum extent practicable and the shutdown zones.

- (f) The Holder must coordinate with the Center for Whale Research, Orca network, and NMFS to avoid noise exposure of southern resident killer whales. The Holder must shut down in-water activities when southern resident killer whales are observed or reported within or approaching any harassment zone.

6. Reporting

- (a) The Holder must submit a draft monitoring report to NMFS within 90 calendar days of the completion of each construction year. A draft comprehensive 5-year summary report must also be submitted to NMFS within 90 days of the end of the project. The reports must detail the monitoring protocol and summarize the data recorded during monitoring. Final annual reports and the final comprehensive report must be prepared and submitted within 30 days following resolution of any NMFS comments on the draft report. If no comments are received from NMFS within 30 days of receipt of the draft report, the report must be considered final. If comments are received, a final report addressing NMFS comments must be submitted within 30 days after receipt of comments.
- (b) All draft and final monitoring reports must be submitted to *PR.ITP.MonitoringReports@noaa.gov* and *ITP.pauline@noaa.gov*.
- (c) The marine mammal report must contain the informational elements described in the Marine Mammal Monitoring Plan and, at minimum, must include:
 - i. Dates and times (begin and end) of all marine mammal monitoring;
 - ii. Construction activities occurring during each daily observation period, including:
 - A. The number and type of piles that were driven or removed and by what method (*i.e.*, impact, vibratory, or drilling); and
 - B. The total duration of driving time for each pile (vibratory driving) and number of strikes for each pile (impact driving).
 - iii. Environmental conditions during monitoring periods (at beginning and end of PSO shift and whenever conditions change significantly), including Beaufort sea state and any other relevant weather conditions including cloud cover, fog, sun glare, and overall visibility to the horizon, and estimated observable distance (if less than the harassment zone distance);

- iv. Upon observation of a marine mammal, the following information:
 - A. Name of PSO who sighted the animal(s) and PSO location, as well as the activity at time of sighting;
 - B. Time of sighting;
 - C. 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;
 - D. Distances and bearing of each marine mammal observed in relation to the pile being driven or drilled for each sighting (if pile driving or drilling was occurring at time of sighting);
 - E. Estimated number of animals (min/max/best estimate);
 - F. Estimated number of animals by cohort (adults, juveniles, neonates, group composition, etc.);
 - G. Animal's closest point of approach and estimated time spent within the harassment zone;
 - H. 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);
 - I. Detailed information about any implementation of any mitigation triggered (*e.g.*, shutdowns and delays), a description of specific actions that ensued, and resulting behavior of the animal, if any;
- (d) The Holder must submit all PSO datasheets and/or raw sighting data with the draft reports referenced in condition 6(a) of this LOA.
- (e) In the event that personnel involved in the construction activities discover an injured or dead marine mammal, the Holder must report the incident to the Office of Protected Resources (OPR), NMFS (*PR.ITP.MonitoringReports@noaa.gov* and *ITP.Pauline@noaa.gov*) and to the West Coast Regional Stranding Coordinator (206-526-4747) as soon as feasible. If the death or injury was clearly caused by the specified activity, the Holder must immediately cease the 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 this LOA. The Holder must not resume their activities until notified by NMFS.

The report must include the following information:

- i. Time, date, and location (latitude/longitude) of the first discovery (and updated location information 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.
7. This Authorization may be modified, suspended or revoked if the Holder fails to abide by the conditions prescribed herein (including, but not limited to, failure to comply with monitoring or reporting requirements), or if NMFS determines: (1) the authorized taking is likely to have or is having more than a negligible impact on the species or stocks of affected marine mammals or (2) the prescribed measures are likely not or are not effecting the least practicable adverse impact on the affected species or stocks and their habitat.

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For Kimberly Damon-Randall,
Director, Office of Protected Resources
National Marine Fisheries Service

Table 1 – Authorized Incidental Take

Common Name	Scientific Name	Stock	Annual Level A Harassment	Annual Level B Harassment
Gray Whale	<i>Eschrichtius robustus</i>	Eastern North Pacific	0	1
Minke Whale	<i>Balaenoptera acutorostrata</i>	California/Oregon/Washington	0	1
Dall's Porpoise	<i>Phocoenoides dalli</i>	California/Oregon/Washington	0	6
Harbor Porpoise	<i>Phocoena phocoena</i>	Washington Inland Waters	0	128
California Sea Lion	<i>Zalophus californianus</i>	United States	0	19
Steller Sea Lion	<i>Eumetopias jubatus</i>	Eastern United States	0	6
Northern Elephant Seal	<i>Mirounga angustirostris</i>	California Breeding	0	2
Pacific Harbor Seal	<i>Phoca vitulina</i>	Washington Northern Inland Waters	27	648

Table 2 -- Shutdown and Harassment Zones

Pile Size and Type	Shutdown Zone (m)			Level B Harassment Zone (m)
	Cetaceans	Harbor Seal	Sea Lion	
24-inch Concrete Impact	90	30	10	90
36-inch Steel Impact	400	200	20	400
36-inch Steel Vibratory	13,600	10	10	13,600
Fender Vibratory	1,000	10	10	1,000