



## INCIDENTAL HARASSMENT AUTHORIZATION

The City of Seattle and their designees are hereby authorized under section 101(a)(5)(D) of the Marine Mammal Protection Act (MMPA; 16 U.S.C. 1371(a)(5)(D)) to incidentally harass marine mammals, under the following conditions:

1. This incidental harassment authorization (IHA) is effective through July 31, 2024.
2. This IHA authorizes take incidental to in-water pile driving, as specified in the City’s IHA application, associated with the Pier 58 Reconstruction Project in Seattle, Washington. Hereafter (unless otherwise specified) the term “pile driving” is used to refer to both pile installation and pile removal.
3. General Conditions
  - (a) A copy of this IHA must be in the possession of the Holder of the Authorization (Holder), supervisory construction personnel, lead protected species observers (PSOs), and any other relevant designees of the Holder operating under the authority of this IHA at all times that activities subject to this IHA are being conducted.
  - (b) The species and/or stocks authorized for taking are listed in Table 1. Authorized take, by Level A and Level B harassment only, 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 IHA. Any taking exceeding the authorized amounts listed in Table 1 is prohibited and may result in the modification, suspension, or revocation of this IHA.
  - (d) The Holder must ensure that construction supervisors and crews, the monitoring team, and relevant City staff are trained prior to the start of activities subject to this IHA, 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 IHA. The Holder must monitor the project area to the maximum extent possible based on the required number of PSOs, required monitoring locations, and environmental conditions.



- (b) 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.
- (c) If a marine mammal is observed entering or within the shutdown zones indicated in Table 2, pile driving activity must be delayed or halted. Pile driving must be commenced or resumed as described in condition 4(e) of this IHA.
- (d) Pre-start clearance monitoring must be conducted during periods of visibility sufficient for the lead PSO to determine that the shutdown zones indicated in Table 2 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.
- (e) 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 Table 2 or 15 minutes have passed without re-detection of the animal.
- (f) The Holder 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 reduced-energy strike sets. 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.
- (g) The Holder must use a bubble curtain during impact pile driving. The bubble curtain must be operated as necessary to achieve optimal performance. At a minimum, the Holder 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.
- (h) Pile driving activity must be halted (as described in condition 4(c) of this IHA) 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 Table 2).

- (i) The Holder, construction supervisors and crews, PSOs, and relevant City staff must avoid direct physical interaction with marine mammals during construction activity. If a marine mammal comes within 10 meters of construction activity or a vessel involved with construction 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.
- (j) Specific measures for avoiding take of unauthorized species (e.g., Southern Resident killer whales (SRKW), humpback whales):
  - (i) Prior to the start of pile driving activities each day, and hourly after pile driving has begun, the Holder must contact the Orca Network to obtain the latest sightings information for SRKW and humpback whales.
  - (ii) The City must delay or halt pile driving activities if SRKW or humpback whales are sighted within the vicinity of the project area and are approaching the Level B harassment zones (Table 2) during in-water activities.
  - (iii) If a killer whale approaches the Level B harassment zone during pile driving activities, and it is unknown whether it is a SRKW or transient killer whale (an unidentified killer whale), it must be assumed to be a SRKW and the City must delay or halt pile driving activities as described in condition 4(j)(ii) of this IHA.
  - (iv) If a SRKW, unidentified killer whale, or humpback whale enters the Level B harassment zone undetected, in-water pile driving must be suspended immediately upon detection and must not resume until the animal exits the Level B harassment zone or 15 minutes have passed without re-detection of the animal.

5. Monitoring Requirements

- (a) Marine mammal monitoring must be conducted in accordance with the conditions in this section and this IHA.
- (b) Monitoring must be conducted by qualified, NMFS-approved PSOs, in accordance with the following conditions:
  - (i) PSOs must be independent (i.e., not construction personnel) 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) 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 a NMFS-issued incidental take authorization.
  - (v) PSOs must be approved by NMFS prior to beginning any activity subject to this IHA.
- (c) The Holder must establish the following monitoring locations:
- (i) For vibratory removal of timber and steel H-piles, one PSO must be assigned to monitor the area from the construction site and one PSO must monitor the area from Alki Point.
  - (ii) For vibratory installation and removal of steel pipe piles, PSOs must be stationed at the construction site and Alki Point as above, with an additional PSO stationed in Magnolia on the north side of Elliott Bay and another stationed on the Seattle-Bainbridge ferry.
  - (iii) For impact installation of steel piles, one PSO must be stationed at the construction site to monitor the area.
- (d) PSOs must record all observations of marine mammals, regardless of distance from the in-water specific activities, as well as the additional data indicated in section 6 of this IHA.

## 6. Reporting

- (a) The Holder must submit its draft report(s) on all monitoring conducted under this IHA within 90 calendar days of the completion of monitoring or 60 calendar days prior to the requested issuance of any subsequent IHA for construction activity at the same location, whichever comes first. A final report must be prepared and submitted within 30 calendar days following receipt of any NMFS comments on the draft report. If no comments are received from NMFS within 30 calendar days of receipt of the draft report, the report shall be considered final.
- (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, 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 and the method (e.g., impact, vibratory, steel, timber); and
  - B. Total duration of driving time for each pile (vibratory driving) and number of strikes for each pile (impact driving).
- (iii) PSO locations during marine mammal monitoring;
  - (iv) 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;
  - (v) Upon observation of a marine mammal, the following information:
    - A. Name of PSO who sighted the animal(s) and PSO location and 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. Distance and location of each observed marine mammal relative to the pile being driven for each 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);
  - (vi) Number of marine mammals detected within the harassment zones, by species; and
  - (vii) Detailed information about implementation of any mitigation (e.g., shutdowns and delays), a description of specific actions that ensued, and resulting changes in behavior of the animal(s), if any.

- (d) The Holder must submit all PSO datasheets and/or raw sighting data with the draft report, as specified in condition 6(a) of this IHA.
- (e) Reporting injured or dead marine mammals:


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 network (1-866-767-6114) 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 IHA. 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.

DAMON  
RANDALL.KIMBERLY.BE  
TH.1365821093



Digitally signed by DAMON  
RANDALL.KIMBERLY.BETH.13658  
21093  
Date: 2023.08.10 14:49:51 -04'00'

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

**Table 1. Authorized Incidental Take**

Species	Stock	Proposed take by Level A harassment	Proposed take by Level B harassment
Pacific harbor seal	Washington Northern Inland Waters stock	21	189
Northern elephant seal	California breeding	0	3
California sea lion	U.S.	0	210
Steller sea lion	Eastern U.S.	0	42
Harbor porpoise	Washington Inland Waters	6	120
Dall's porpoise	California/Oregon/Washington	6	30
Long-beaked common dolphin	California	0	21
Common bottlenose dolphin	California/Oregon/Washington Offshore	0	21
Transient killer whale	West Coast Transient	0	18
Gray whale	Eastern North Pacific	0	3
Minke whale	California/Oregon/Washington Stock	0	3

**Table 2. Shutdown and Harassment Zones**

Pile Size, Type, and Method	Minimum Shutdown Zone (m)					Level B Harassment Zone (m)
	LF Cetacean	MF Cetacean	HF Cetacean	Phocid	Otariid	
Timber vibratory removal (Don Armeni)	10	10	10	10	10	453
30-inch steel vibratory installation	60	10	85	35	10	21,710
30-inch steel impact installation	555	20	660	295	25	616
16-inch steel vibratory installation (Don Armeni)	10	10	15	10	10	3,415