



## INCIDENTAL HARASSMENT AUTHORIZATION

The Washington State Department of Transportation (WSDOT) is hereby authorized under section 101(a)(5)(D) of the Marine Mammal Protection Act (MMPA; 16 U.S.C. 1371(a)(5)(D)) to harass marine mammals incidental to conducting in-water construction work for the Seattle Multimodal Project at Colman Dock in Seattle, Washington State, when adhering to the following terms and conditions.

1. This Incidental Harassment Authorization (IHA) is valid from September 10, 2020, to September 9, 2021.
2. This IHA is valid only for construction activities associated with Seattle Multimodal Project at Colman Dock in Seattle, Washington State.
3. General Conditions
  - (a) A copy of this IHA must be in the possession of WSDOT, its designees, work crew personnel, and Protected Species Observers (PSOs) operating under the authority of this IHA.
  - (b) The species authorized for taking are gray whale (*Eschrichtius robustus*), humpback whale (*Megaptera novaeangliae*), minke whale (*Balaenoptera acutorostrata*), West Coast transient killer whale (*Orcinus orca*), bottlenose dolphin (*Tursiops truncatus*), harbor porpoise (*Phocoena phocoena*), Dall's porpoise (*P. dalli*), harbor seal (*Phoca vitulina*), northern elephant seal (*Mirounga angustirostris*), California sea lion (*Zalophus californianus*), and Steller sea lion (*Eumetopias jubatus*).
  - (c) The taking, by Level A and Level B harassment, is limited to the species listed in condition 3(b). Table 1 provides the authorized number of takes per species and stock.
  - (d) The taking, by serious injury or death of any of species listed in condition 3(b) of this IHA is prohibited.
  - (e) The taking, by Level A harassment, Level B harassment, serious injury, or death, of marine mammal species not identified in condition 3(b) is prohibited.
4. Mitigation Measures

The holder of this IHA is required to implement the following mitigation measures:

- (a) In-water pile driving activities must occur only during daylight hours.
- (b) For in-water construction, heavy machinery activities other than pile driving, if a marine mammal comes within 10 m, WSDOT must cease operations and reduce vessel speed to the minimum level required to maintain steerage and safe working conditions.
- (c) WSDOT is required to conduct briefings for construction supervisors and crews, the monitoring team, and WSDOT staff prior to the start of all pile driving activity, and when new personnel join the work, in order to explain responsibilities, communication procedures, the marine mammal monitoring protocol, and operational procedures.
- (d) WSDOT is required to employ PSOs per the Marine Mammal Monitoring Plan, dated May 12, 2020, and Monitoring Measures described in section 5 of this IHA.
- (e) Marine mammal monitoring must take place from 30 minutes prior to initiation of pile driving activity through 30 minutes post-completion of pile driving activity. Pile driving may commence when observers have declared the shutdown zone clear of marine mammals. In the event of a delay or shutdown of activity resulting from marine mammals in the shutdown zone (Table 2), their behavior must be monitored and documented until they leave of their own volition, at which point the activity may begin.
- (f) If a marine mammal is entering or is observed within an established shutdown zone (Table 2), pile driving must be halted or delayed. Pile driving 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 subsequent detections.
- (g) Should environmental conditions deteriorate such that marine mammals within the entire shutdown zone would not be visible (e.g., fog, heavy rain), pile driving and removal must be delayed until the PSO is confident marine mammals within the shutdown zone could be detected.
- (h) WSDOT 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 thirty-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 thirty minutes or longer.

- (i) WSDOT is required to employ a bubble curtain during all impact pile driving and operate it in a manner consistent with the following performance standards:
  - 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 for the full circumference of the ring, and the weights attached to the bottom ring shall ensure 100 percent mudline contact. No parts of the ring or other objects shall prevent full mudline contact.
  - iii. Air flow to the bubblers must be balanced around the circumference of the pile.
- (j) If a species for which authorization has not been granted, or a species for which authorization has been granted but the authorized takes are met, is observed approaching or within the monitoring zone (Table 3), pile driving and removal activities must shut down immediately using delay and shut-down procedures. Activities must not resume until the animal has been confirmed to have left the area or the observation time period has elapsed.
- (k) Specific measures for Southern Resident killer whale (SRKW):
  - i. WSDOT must implement shutdown measures if SRKWs are sighted within the vicinity of the project area and are approaching the Level B harassment zone listed in Table 2 during in-water construction activities.
  - ii. If a killer whale approaches the Level B harassment zone during pile driving or removal, and it is unknown whether it is a SRKW or a transient killer whale, it must be assumed to be a SRKW and WSDOT must implement the shutdown measure identified in 4(j)(i).
  - iii. If a SRKW enters the Level B harassment zone undetected, in-water pile driving or pile removal must be suspended until the SRKW whale exits the Level B harassment zone.

## 5. Monitoring Measures

The holder of this IHA is required to abide by the following marine mammal monitoring measures:

- (a) Marine mammal monitoring must be conducted in accordance with the Marine Mammal Monitoring Plan, dated May 12, 2020.

- (b) Marine mammal monitoring during pile driving and removal must be conducted by NMFS-approved PSOs in a manner consistent with the following:
  - i. Independent PSOs (*i.e.*, not construction personnel) who have no other assigned tasks during monitoring periods must be used.
  - ii. Other PSOs may substitute education (degree in biological science or related field) or training for experience.
  - iii. Where a team of three or more PSOs are required, a lead observer or monitoring coordinator must be designated. The lead observer must have prior experience working as a marine mammal observer during construction.
  - iv. WSDOT must submit PSO CVs for approval by NMFS prior to the onset of pile driving.
- (c) Southern Resident killer whale related monitoring measures
  - i. WSDOT must coordinate with Local Marine Mammal Research Network and obtaining marine mammal sightings and acoustic detection data to monitoring the Southern Resident killer whale.
  - ii. Prior to the start of pile driving, WSDOT must contact the Orca Network and/or Center for Whale Research to get real-time information on the presence or absence of whales.

## 6. Reporting

The holder of this IHA is required to:

- (a) Submit a draft report on all monitoring conducted under the IHA within ninety calendar days of the completion of marine mammal monitoring or sixty days prior to the issuance of any subsequent IHA for this project, whichever comes first. A final report shall be prepared and submitted within thirty days following resolution of comments on the draft report from NMFS. This report must contain the informational elements described in the Marine Mammal Monitoring Plan, dated May 12, 2020, including, but not limited to:
  - i. Dates and times (begin and end) of all marine mammal monitoring.
  - ii. Construction activities occurring during each daily observation period, including how many and what type of piles were driven or removed and by what method (*i.e.*, impact or vibratory).

- iii. Weather parameters and water conditions during each monitoring period (e.g., wind speed, percent cover, visibility, sea state).
  - iv. The number of marine mammals observed, by species, relative to the pile location and if pile driving or removal was occurring at time of sighting.
  - v. Age and sex class, if possible, of all marine mammals observed.
  - vi. PSO locations during marine mammal monitoring.
  - vii. Distances and bearings of each marine mammal observed to the pile being driven or removed for each sighting (if pile driving or removal was occurring at time of sighting).
  - viii. Description of any marine mammal behavior patterns during observation, including direction of travel.
  - ix. Number of individuals of each species (differentiated by month as appropriate) detected within the monitoring zone.
  - x. 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.
  - xi. Description of attempts to distinguish between the number of individual animals taken and the number of incidences of take, such as ability to track groups or individuals.
- (b) Submit all PSO datasheets and/or raw sighting data (in a separate file from the Final Report referenced immediately above).
- (c) Reporting Injured or Dead Marine Mammals

In the event that personnel involved in the construction activities discover an injured or dead marine mammal, the IHA-holder shall report the incident to the Office of Protected Resources (OPR) (301-427-8401), NMFS and to the West Coast Region (WCR) regional stranding coordinator (1-866-767-6114) as soon as feasible. If the death or injury was clearly caused by the specified activity, the IHA-holder must immediately cease the specified activities until NMFS is able to review the circumstances of the incident and determine what, if any, additional measures are appropriate to ensure compliance with the terms of the IHA. The IHA-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 withdrawn if the holder fails to abide by the conditions prescribed herein, or if NMFS determines the authorized taking is having more than a negligible impact on the species or stock of affected marine mammals.
8. Renewals - On a case-by-case basis, NMFS may issue a one-time one-year Renewal IHA following notice to the public providing an additional 15 days for public comments when (1) up to another year of identical or nearly identical, or nearly identical, activities as described in the Specified Activities section of this notice is planned or (2) the activities as described in the Specified Activities section of this notice would not be completed by the time the IHA expires and a Renewal would allow for completion of the activities beyond that described in the Dates and Duration section of this notice, provided all of the following conditions are met:
- (a) A request for renewal is received no later than 60 days prior to the needed Renewal IHA effective date (recognizing that the Renewal IHA expiration date cannot extend beyond one year from expiration of the initial IHA).
  - (b) The request for renewal must include the following:
    - i. An explanation that the activities to be conducted under the requested Renewal IHA are identical to the activities analyzed under the initial IHA, are a subset of the activities, or include changes so minor (e.g., reduction in pile size) that the changes do not affect the previous analyses, mitigation and monitoring requirements, or take estimates (with the exception of reducing the type or amount of take).
    - ii. A preliminary monitoring report showing the results of the required monitoring to date and an explanation showing that the monitoring results do not indicate impacts of a scale or nature not previously analyzed or authorized.
  - (c) Upon review of the request for Renewal, the status of the affected species or stocks, and any other pertinent information, NMFS determines that there are no more than minor changes in the activities, the mitigation and monitoring measures

will remain the same and appropriate, and the findings in the initial IHA remain valid.

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Donna S. Wieting,  
Director, Office of Protected Resources  
National Marine Fisheries Service

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Date

**Table 1. Authorized Amount of Taking, by Level A and Level B harassment, by species and stock.**

<b>Marine mammals</b>	<b>Level A harassment</b>	<b>Level B harassment</b>
Gray whale	0	7
Humpback whale	0	21
Minke whale	0	7
Killer whale (West Coast transient)	0	70
Bottlenose dolphin	0	49
Harbor porpoise	21	442
Dall's porpoise	0	35
Harbor seal	52	3,155
Northern elephant seal	0	7
California sea lion	0	1,363
Steller sea lion	0	141

**Table 2. Exclusion Zones by Marine Mammal Hearing Group, Pile Size, and Pile Driving Method.**

<b>Pile type, size &amp; pile driving method</b>	<b>Exclusion distance (m)</b>					<b>SRKW (m)</b>
	LF	MF	HF	Phocid	Otariid	
Impact drive 36" steel pile	380	15	450	60	15	750
Vibratory drive 36" steel pile	160	15	230	60	10	8,700
Vibratory drive/removal, 24" steel piles	100	10	150	60	10	8,700
Vibratory remove 14" timber pile; or vibratory removal 12" steel pile	10	10	15	10	10	2,200

\*LF = low-frequency cetacean; MF = mid-frequency cetacean; HF = high-frequency cetacean; PW = phocid; OW = otariids; SRKW = Southern Resident killer whale

**Table 3. Monitoring Zones**

<b>Activity</b>	<b>Monitoring distance (m)</b>
Impact pile driving, 36-inch steel pile	750
Vibratory pile removal, 14-inch timber pile and 12-inch steel pile	2,200
Vibratory pile driving, 24- and 36-inch steel pile; vibratory pile removal, 24-inch steel pile	8,700