



INCIDENTAL HARASSMENT AUTHORIZATION

The Ketchikan Dock Company (KDC) 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 pile driving and removal in Ketchikan, Alaska, when adhering to the following terms and conditions.

1. This Incidental Harassment Authorization (IHA) is valid from October 1, 2018, to September 30, 2019.
2. This IHA is valid only for impact pile driving, vibratory pile driving, vibratory pile removal, and socket/anchor drilling activities associated with the construction of the Ketchikan Berth IV Expansion Project in Ketchikan, Alaska.
3. General Conditions
 - (a) A copy of this IHA must be in the possession of KDC, its designees, and work crew personnel operating under the authority of this IHA.
 - (b) The species authorized for taking are the minke whale (*Balaenoptera acutorostrata*), humpback whale (*Megaptera novaeangliae*), killer whale (*Orcinus orca*), Dall's porpoise (*Phocoenoides dalli*), harbor porpoise (*Phocoena phocoena*), Steller sea lion (*Eumetopias jubatus*), Pacific White-Sided Dolphin (*Lagenorhynchus obliquidens*), and harbor seal (*Phoca vitulina*).
 - (c) The taking, by Level B harassment and small numbers of Level A harassment, is limited to the species listed in condition 3(b). See Table 1 (attached) for numbers of take authorized.
 - (d) The taking by serious injury or death of any of the species listed in condition 3(b) of the Authorization or any taking of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this IHA.
 - (e) The KDC shall conduct briefings between construction supervisors and crews and marine the mammal monitoring team prior to the start of all pile driving, pile removal, and drilling, and when new personnel join the work, in order to explain responsibilities, communication procedures, marine mammal monitoring protocol, and operational procedures.
 - (f) Pile driving and drilling activities authorized under this IHA may only occur during daylight hours.

4. Mitigation Measures

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



- (a) For all pile driving, drilling, and in-water heavy machinery work, KDC shall implement a shutdown zone around the pile or work zone. If a marine mammal comes within or approaches the shutdown zone, such operations shall cease. See Table 2 (attached) for minimum radial distances required for shutdown zones.
- (b) After a shutdown occurs, impact pile driving, vibratory piling driving/removal, and/or drilling can only begin after the animal is observed leaving the shutdown zone or has not been observed for 15 minutes.
- (c) KDC shall use a softening material (*e.g.*, high-density polyethylene (HDPE) or ultra-high-molecular-weight polyethylene (UHMW)) on all templates to eliminate steel on steel noise generation.
- (d) KDC shall use a soft-start procedure for impact pile driving. During a soft start, KDC shall be required to provide an initial set of three strikes from the impact hammer at 40 percent energy, followed by a one minute waiting period, then two subsequent 3–strike sets. This soft-start shall be applied prior to beginning pile driving activities each day or when impact pile driving hammers have been idle for more than 30 minutes.
- (e) KDC shall drive all piles with a vibratory hammer until a desired depth is achieved or to refusal prior to using an impact hammer.
- (f) If a species enters or approaches the Level B zone and that species is either not authorized for take or its authorized takes are met, pile driving and removal activities must shut down immediately using delay and shut-down procedures.
- (g) KDC shall establish monitoring locations as described below.

5. Monitoring

KDC is required to conduct marine mammal monitoring during all pile driving/removal and drilling activities. Monitoring and reporting shall be conducted in accordance with the following:

- (a) KDC shall monitor the Level B harassment zones and shutdown zones during all pile driving/removal and drilling activities.
- (b) If waters exceed a sea-state which restricts the observers' ability to make observations within the marine mammal shutdown zone, pile installation/removal and drilling shall cease. Pile driving and/or drilling shall not be initiated or continue until the entire largest shutdown zone for the activity is visible.
- (c) Prior to the start of daily in-water construction activity, or whenever a break in pile driving/removal and/or drilling of 30 minutes or longer occurs, the PSOs

shall observe the shutdown and monitoring zones for a period of 30 minutes before construction activities can begin.

- (d) If the shutdown zones has been observed to be clear of marine mammals for 30 minutes, in-water construction can commence and work can continue even if visibility becomes impaired within the Level B harassment zone.
- (e) When a marine mammal is present in the Level B harassment zone, piling and drilling activities may begin and or continue and Level B harassment take shall be recorded.
- (f) If the entire Level B harassment zone is not visible while work continues, takes shall be recorded and extrapolated based upon the amount of total observed takes and the percentage of the Level B harassment zone that was not visible.
- (g) Monitoring shall be conducted by qualified PSOs, with minimum qualifications as described previously in the *Monitoring and Reporting* section of the proposed *Federal Notice*. PSO requirements include.
 - (i) Two to Four observers shall be on site to actively observe the shutdown and disturbance zones during all pile driving, removal, and drilling:
 - 1. Two land-based PSOs shall monitor during all impact pile driving.
 - 2. Three land-based PSOs shall monitoring during 24-inch and 30-inch vibratory pile installation/removal.
 - 3. Four land-based PSOs shall monitor during vibratory pile driving/removal of 36-inch and 48-inch diameter piles and all socket/anchor drilling activities.
 - (ii) Observers shall use their naked eye with the aid of binoculars, and/or a spotting scope during all pile driving and extraction activities;
 - (iii) Monitoring location(s) shall include the following characteristics:
 - 1. One PSO shall be stationed at Berth IV and shall be able to view across Tongass Narrows south and west to Gravina Island.
 - 2. A second and third PSOs shall be located in increments along the road systems at locations that provide the best vantage points for viewing Tongass Narrows west and east of Berth IV. These locations shall vary depending on type of pile driving.
 - 3. The fourth PSO shall be located on the road system near Mountain Point and shall be able to view Tongass Narrows to the northwest and Revillagigedo Channel to the southeast.

4. The PSOs shall have an unobstructed view of all water within the shutdown zone and as much of the Level B harassment zone as possible for pile driving/removal and/or drilling.
- (h) Marine mammal location shall be determined using a rangefinder and a GPS or compass.
- (i) Post-construction monitoring shall be conducted for 30 minutes beyond the cessation of piling and drilling activities at end of day.

6. Reporting

KDC is required to:

- (a) Submit a draft report on all monitoring conducted under the IHA within 90 calendar days of the completion of marine mammal monitoring. This report shall detail the monitoring protocol, summarize the data recorded during monitoring, and estimate the number of marine mammals that may have been harassed, including the total number extrapolated from observed animals across the entirety of relevant monitoring zones. 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 following:
 - (i) Date and time a monitored activity begins or ends;
 - (ii) Construction activities occurring during each observation period;
 - (iii) Record of implementation of shutdowns, including the distance of animals to the pile and description of specific actions that ensued and resulting behavior of the animal, if any;
 - (iv) Deviation from initial proposal in pile numbers, pile types, average driving times, etc.;
 - (v) Weather parameters (*e.g.*, percent cover, visibility);
 - (vi) Water conditions (*e.g.*, sea state, tide state);
 - (vii) Species, numbers, and, if possible, sex and age class of marine mammals;
 - (viii) Description of any observable marine mammal behavior patterns;
 - (ix) Distance from pile driving activities to marine mammals and distance from the marine mammals to the observation point;
 - (x) Locations of all marine mammal observations; and
 - (xi) Other human activity in the area.
- (b) Reporting injured or dead marine mammals:

- (i) In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a manner prohibited by this IHA, such as serious injury, or mortality, KDC shall immediately cease the specified activities and report the incident to the Office of Protected Resources (301-427-8401), NMFS, and the Alaska Regional Stranding Coordinator (907-271-1332), NMFS. The report must include the following information.
- (c) Reporting injured or dead marine mammals:
- (i) In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a manner prohibited by this IHA, such as an injury (Level A harassment), serious injury, or mortality, KDC shall immediately cease the specified activities and report the incident to the Office of Protected Resources (301-427-8401), NMFS, and the Alaska Regional Stranding Coordinator (877-925-7773), NMFS. The report must include the following information:
 - 1. Time and date of the incident;
 - 2. Description of the incident;
 - 3. Environmental conditions (e.g., wind speed and direction, Beaufort sea state, cloud cover, and visibility);
 - 4. Description of all marine mammal observations and active sound source use in the 24 hours preceding the incident;
 - 5. Species identification or description of the animal(s) involved;
 - 6. Fate of the animal(s); and
 - 7. Photographs or video footage of the animal(s).

Activities shall not resume until NMFS is able to review the circumstances of the prohibited take. NMFS shall work with KDC to determine what measures are necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. KDC may not resume their activities until notified by NMFS.

- (ii) In the event that KDC discovers an injured or dead marine mammal, and the lead observer determines that the cause of the injury or death is unknown and the death is relatively recent (*e.g.*, in less than a moderate state of decomposition), KDC shall immediately report the incident to the Office of Protected Resources, NMFS, and the Alaska Stranding Coordinator, NMFS. The report must include the same information identified in 6(b)(i) of this IHA. Activities may continue while NMFS reviews the circumstances of the incident. NMFS shall work with KDC to determine whether additional mitigation measures or modifications to the activities are appropriate.

- (iii) In the event that KDC discovers an injured or dead marine mammal, and the lead observer determines that the injury or death is not associated with or related to the activities authorized in the IHA (e.g., previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), KDC shall report the incident to the Office of Protected Resources, NMFS, and the Alaska Stranding Coordinator, NMFS, within 24 hours of the discovery. KDC shall provide photographs or video footage or other documentation of the stranded animal sighting to NMFS.

- 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.



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

JUL 27 2018

Date

Attachments

Table 1 Authorized take numbers, by species.

Species	Stock	Level A	Level B
Humpback Whale	Central North Pacific	0	24
Minke Whale	Alaska	0	3
Killer Whale	Alaska Resident	0	40
	Northern Resident	0	40
	West Coast Transient	0	40
Pacific White-Sided Dolphin	North Pacific	0	92
Dall's Porpoise	Alaska	0	60
Harbor Porpoise	Southeast Alaska	10	20
Harbor Seal	Clarence Strait	18	174
Steller Sea Lion	Eastern U.S	0	290

Table 2 Shutdown Zones.

Source	Shutdown Zones (meters)				
	Low-Frequency Cetaceans (humpback whale, minke whale)	Mid-Frequency Cetaceans (killer whale, Pacific-white sided dolphin)	High-Frequency Cetaceans (Dall's porpoise, harbor porpoise)	Phocid (harbor seal)	Otariid (sea lion)
In-Water Construction Activities*					
In Water Heavy Construction (<i>i.e.</i> , Barge movements, pile positioning, deadpulling, and sound attenuation)	10	10	10	10	10
Vibratory Pile Driving					
24-inch steel removal (2 piles) (~1 hour on 1 day)	25	25	25	25	25
30-inch steel removal (6 piles) (~1 hour per day on 2 days)	25	25	25	25	25
36-inch steel removal (4 piles) (~1 hour on 1 day)	25	25	50	25	25
30-inch steel temporary installation (16 piles) (~2 hours per day on 4 days)	25	25	25	25	25
30-inch steel permanent installation (1 pile) (~2 hours on 1 day)	25	25	25	25	25

48-inch steel permanent installation (17 piles) (~2 hours per day on 9 days)	50	25	50	25	25
Impact Pile Driving					
48-inch steel permanent installation (17 piles) (~15 minutes per day on 6 days)	500	25	600	270	25
Socketing Pile Installation(Drilling)					
30-inch steel permanent installation (1 pile) (3 hours per day on 1 day)	50	25	50	25	25
Anchor Pile Installation (Drilling)					
30-inch steel permanent installation (7.5 hours per day)	80	25	80	50	25