



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

INCIDENTAL HARASSMENT AUTHORIZATION

The City of Juneau (the City) 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 the Statter Harbor Improvement Project in Auke Bay, Alaska, when adhering to the following terms and conditions.

1. This Incidental Harassment Authorization (IHA) is valid from October 1, 2020 to September 30, 2021.
2. This IHA is valid only for in-water construction activities associated with the Statter Harbor Improvement Project in Auke Bay, Alaska.
3. General Conditions
 - (a) A copy of this IHA must be in the possession of the City, its designees, work crew personnel, and Protected Species Observers (PSOs) operating under the authority of this IHA.
 - (b) The species authorized for taking are humpback whale (*Megaptera novaeangliae*), minke whale (*Balaenoptera acutorostrata*), killer whale (*Orcinus orca*), harbor porpoise (*Phocoena phocoena*), Dall's porpoise (*Phocoenoides dalli*), Steller sea lion (*Eumetopias jubatus*), California sea lion (*Zalophus californianus*), and harbor seal (*Phoca vitulina*).
 - (c) The taking, by Level A and B harassment, is limited to the species listed in condition 3(b) and numbers listed in Table 1.
 - (d) The taking by serious injury or death of any of the species listed in condition 3(b) 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.
4. Mitigation Measures

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



- (a) For in-water construction heavy machinery activities other than pile driving (e.g., use of barge-mounted excavators, or dredging), if a marine mammal comes within 10 m, the City must cease operations.
- (b) The City is required to conduct briefings for construction supervisors and crews, the monitoring team, and City 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.
- (c) The City is required to establish and implement monitoring and shutdown zones (as shown in Table 2).
- (d) Marine mammal monitoring must take place from 30 minutes prior to initiation of pile driving/drilling activity through 30 minutes post-completion of pile driving/drilling activity. Pre-activity monitoring must be conducted for 30 minutes to ensure that the shutdown zone is clear of marine mammals, and pile driving/drilling 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, 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.
- (e) If a marine mammal enters or is observed within an established shutdown zone (Table 2), pile driving/drilling 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 of the animal.
- (f) The City 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.
- (g) 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 entering or within the monitoring zone (Table 2), pile driving and removal and drilling activities must shut down immediately using delay and shutdown procedures. Activities must not resume until the animal has been confirmed to have left the area or the 15 minute observation time period has elapsed.

- (h) Work may not begin during nighttime hours, or during periods of low visibility when visual monitoring of marine mammals can be conducted. However, work can continue into the nighttime hours if necessary.

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 in Appendix B of the City's IHA application. At least 2 PSOs are required during pile driving, removal, and drilling activities. If visibility is such that observers are able to make observations beyond the monitoring zone distance, these observations will be recorded and reported.
- (b) Marine mammal monitoring during pile driving, drilling, 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. At least one observer must have prior experience working as an observer.
 - iii. Other PSOs may substitute education (degree in biological science or related field) or training for experience.
 - iv. The City must submit PSO CVs for approval by NMFS prior to the onset of pile driving and drilling.

6. Reporting

The holder of this IHA is required to:

- (a) Submit a report on all marine mammal monitoring conducted under the IHA. A draft report must be submitted 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 must 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, 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, and estimates of number of marine mammals taken, by species (a correction factor may be applied to total take numbers, as appropriate). Reports must include a tally of extrapolations based upon the number of takes observed and the percentage of the Level B harassment zone that was not visible and the percentage of time that activities occur at night.
- 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.
- xii. Copies of PSO data sheets where observations were recorded.

(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, the City must immediately cease the specified activities and report the incident to the NMFS Office of

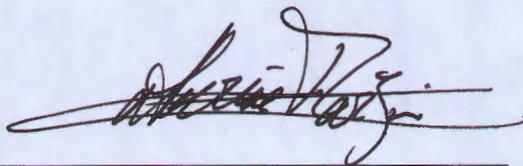
Protected Resources (301-427-8401) and Alaska Region Stranding Coordinator (907-586-7209). The report must include the following information:

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

- ii. In the event the City 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), the City must immediately report the incident to the Office of Protected Resources, NMFS, and the Alaska Region 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 will work with the City to determine whether additional mitigation measures or modifications to the activities are appropriate.
- iii. In the event that the City 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 specified activities (*e.g.*, previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), the City must report the incident to the Office of Protected Resources, NMFS, and the Alaska Region Stranding Coordinator, NMFS, within 24 hours of the discovery.

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 second one-year IHA without additional notice when 1) another year of identical or nearly identical activities as described in the Specified Activities section is planned or 2) the activities would not be completed by the time the IHA expires and a second IHA would allow for completion of the activities beyond that allowed for under this IHA, provided all of the following conditions are met:
 - (a) A request for renewal is received no later than 60 days prior to expiration of the current IHA.
 - (b) The request for renewal must include the following:
 - i. An explanation that the activities to be conducted beyond the initial dates either are identical to the previously analyzed activities or include changes so minor (e.g., reduction in pile size) that the changes do not affect the previous analyses, take estimates, or mitigation and monitoring requirements.
 - 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 remain the same and appropriate, and the original findings remain valid.



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

JAN 07 2007

Date

Table 1. Authorized take numbers by species/stocks.

	Total Level B Harassment Takes	Total Level A Harassment Takes	Total Takes Authorized
Humpback whale*	92	0	92
Steller sea lion eDPS	2,282	0	2,282
Steller sea lion wDPS	501	0	501
Harbor seal	2,806	276	3,082
Dall's porpoise	60	24	84
Harbor porpoise	46	24	70
Killer whale Alaska Resident Northern Resident Gulf of Alaska Transient West Coast Transient	55	0	55
Minke whale	8	0	8
California sea lion	23	0	23

Table 2. Monitoring and shutdown zones for each project activity.

Source	Shutdown Zones (m)					Monitoring Zones (m)
	Low Frequency Cetacean	Mid-frequency Cetacean	High Frequency Ceteacean	Phocid	Otariid	All species
Vibratory Removal	20	10	25	10	10	2,500
Vibratory Installation/ Drilling	80	10	120	50	10	2,500
Impact Driving	185	10	220	25	10	1,000

Table 3 – Level A and Level B Harassment Zones for each project activity.

PTS Isopleth (m)					
Source Type	Low-Frequency Cetaceans	Mid-Frequency Cetaceans	High-Frequency Cetaceans	Phocid Pinnipeds	Otariid Pinnipeds
Vibratory driving	35.8	3.2	52.9	21.8	1.5
Vibratory removal	4.1	0.4	6.0	2.5	0.2
Down the hole drilling	79.5	7.0	117.6	48.3	3.4
Impact driving (SEL/PK)	184.2/ 1.2	6.6/ NA	219.5/ 15.8	98.6/ 1.4	7.2/ NA
Level B Behavioral Harassment Isopleth (m)					
Vibratory driving	5,411.7				
Vibratory removal	2,457.2				
Down the hole drilling	12,022.64				
Impact driving	1,000				