



INCIDENTAL HARASSMENT AUTHORIZATION

The Maine Department of Transportation (ME DOT), 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 vibratory and impact pile driving for the Eastport Breakwater Restoration Project (EBRP) in Eastport, ME when adhering to the following terms and conditions.

1. This Authorization is valid for one year from issuance.
2. This Authorization is valid only for activities associated with the EBRP in Eastport, ME.
3. General Conditions

(a) The species authorized for incidental take, by Level B harassment only, are: harbor seal (*Phoca vitulina*), gray seal (*Halichoerus grypus*), harbor porpoise (*Phocoena phocoena*), Atlantic white-sided dolphin (*Lagenorhynchus acutus*) and minke whale (*Balaenoptera acutorostrata*). The allowed take numbers of these species are shown in Table 1.

Table 1. Species/stocks and numbers of marine mammals allowed under this IHA.

Species	Authorized Level B Harassment takes
Harbor seal	1,600
Gray seal	
Harbor porpoise	390
Atlantic white-sided dolphin	72
Minke whale	16

(b) The authorization for taking by harassment is limited to the following acoustic sources and from the following activities: Impact and vibratory driving activities.

(c) The taking of any marine mammal in a manner prohibited under this Authorization must be reported within 24 hours of the taking to the National Marine Fisheries Service (NMFS) Permits and Conservation Division, Office of Protected Resources at (301) 427-8401 and the NMFS' Greater Atlantic Region Fisheries Office (GARFO) at (978) 282-8478.

4. The holder of this Authorization must notify the NMFS' Permits and Conservation Division, Office of Protected Resources at (301) 427-8401, at least 48 hours prior to the start of activities identified in 3(b) (unless constrained by the date of issuance of this Authorization in which case notification shall be made as soon as possible).

5. Prohibitions

(a) The taking, by incidental harassment only, is limited to the species listed under condition 3(a) above and by the numbers listed in Table 1. The taking by Level A harassment, injury or death of these species or the taking by harassment, injury or death of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this Authorization.

(b) The taking of any marine mammal is prohibited whenever the required protected species observers (PSOs), required by condition 7(a), are not present in conformance with condition 7(a) of this Authorization.

6. Mitigation

(a) Noise Attenuation Devices

When using an impact pile hammer to install piles, sound absorption cushions and/or a bubble curtain shall be used to reduce underwater sound levels and avoid the potential for marine mammal injury.

(b) Shutdown Zones

(i) ME DOT shall implement shutdown zones for pile driving as described in Table 2 below.

(ii) ME DOT shall implement a minimum shutdown zone of 10 m radius around each pile for all construction methods other than pile driving for all marine mammals.

Table 2. Shutdown Zones for Marine Mammals.

Activity	Pinnipeds	Cetaceans
Impact Pile Driving (Level A)	70 m	160 m
Vibratory Pile Driving (Level A)	50 m	120 m

(iii) If a marine mammal is sighted within or approaching the shutdown zones prior to start of impact pile driving, the observer would notify the on-site project lead (or other authorized individual) who would then be required to delay pile driving until the animal has moved out of the shutdown zone or the animal has not been resighted within 15 min (pinnipeds and small cetaceans)/30 min (for large cetaceans).

(iv) If a marine mammal is sighted within or on a path toward the shutdown zone during pile driving, pile driving would cease until that animal has moved out of

the shutdown zone or 15 min (pinnipeds and small cetaceans)/30 min (for large cetaceans) has lapsed since the last sighting.

(v) Shutdown and delay procedures would also be required if a species for which authorization has not been granted or if a species for which authorization has been granted but the authorized number of takes has been met, approaches or is observed within the Level B harassment zone.

(c) Soft Start

(i) For vibratory pile driving, contractors shall initiate noise from the vibratory hammer for 15 seconds at 40-60 percent reduced energy, followed by a one-min waiting period. The procedure shall be repeated two additional times before full energy may be achieved.

(ii) For impact hammering, contractors shall provide an initial set of three strikes from the impact hammer at 40 percent energy, followed by a one-min waiting period, then two subsequent three-strike sets.

(iii) The soft-start procedure shall be conducted prior to driving each pile if hammering ceases for more than 30 min.

(d) Timing Restrictions

(i) Work would occur only during daylight hours, when visual monitoring of marine mammals can be conducted.

7. Monitoring:

(a) Visual Monitoring

(i) Level B Harassment Zones - ME DOT shall monitor Level B Harassment zones as described in Table 3 below. Note: If both types of sheet piles are installed simultaneously, the larger Level B zone (665 m) would be monitored.

Table 3. Level B Harassment Zones for Marine Mammals.

Activity	Pinnipeds	Cetaceans
Impact Pile Driving (Level B)	550 m	
Vibratory Pile Driving (Level B)		
PZC-18 Sheet Piles	400 m	
PZC-26 Sheet Piles	665 m	
16-20 in piles	500 m	
36 in piles	1,260 m	

(ii) Protected Species Observers - ME DOT shall employ two biologically-trained, NMFS-approved protected species observers (PSOs) to conduct marine mammal monitoring for its EBRP.

(iii) Visual monitoring for marine mammals shall be conducted 30 min before, during, and 30 min after during all vibratory and impact pile driving activities.

(iv) PSOs shall be positioned on the pier. One observer would survey inwards toward the pile driving site and the second observer would conduct behavioral monitoring outwards to a distance of 1 km during all impact pile driving.

(v) PSOs shall provide 100-percent coverage for marine mammal shutdown zones and conduct monitoring out to the extent of the relevant Level B harassment zones for vibratory and impact pile driving activities.

(vi) PSOs shall be provided with the equipment necessary to effectively monitor for marine mammals (*e.g.*, high-quality binoculars, compass, and range-finder as well as a digital SLR camera with telephoto lens and video capability) in order to determine if animals have entered into the shutdown zones or Level B harassment zones and to record species, number of animals, behaviors, and responses during vibratory and impact pile driving.

At a minimum, the following information shall be collected on the sighting forms:

- Date and time that monitored activity begins or ends;
- Construction activities occurring during each observation period;
- Weather parameters (*e.g.*, percent cover, visibility);
- Water conditions (*e.g.*, sea state, tide state);
- Species, numbers, and, if possible, sex and age class of marine mammals;
- Description of any observable marine mammal behavior patterns, including bearing and direction of travel and distance from pile driving activity;
- Distance from pile driving activities to marine mammals and distance from the marine mammals to the observation point;
- Locations of all marine mammal observations; and
- Other human activity in the area.

8. Reporting:

(a) ME DOT shall provide NMFS with a draft monitoring report within 90 days of the conclusion of the construction work. 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.

(b) If comments are received from the NMFS' Office of Protected Resources and GARFO on the draft report, a final report shall be submitted to NMFS within 30 days

thereafter. If no comments are received from NMFS, the draft report will be considered to be the final report.

(c) In the unanticipated event that the construction activities clearly cause the take of a marine mammal in a manner prohibited by this Authorization (if issued), such as an injury, serious injury or mortality (*e.g.*, ship-strike, gear interaction, and/or entanglement), ME DOT shall immediately cease all operations and immediately report the incident to NMFS' Permits and Conservation Division, Office of Protected Resources at (301) 427-840 and GARFO Stranding Coordinators at (978) 282-8478. The report must include the following information:

- (i) time, date, and location (latitude/longitude) of the incident;
- (ii) description of the incident;
- (iii) status of all sound source use in the 24 hours preceding the incident;
- (iv) environmental conditions (*e.g.*, wind speed and direction, sea state, cloud cover, visibility, and water depth);
- (v) description of marine mammal observations in the 24 hours preceding the incident;
- (vi) species identification or description of the animal(s) involved;
- (vii) the fate of the animal(s); and
- (viii) photographs or video footage of the animal (if equipment is available).

(d) Activities shall not resume until NMFS is able to review the circumstances of the prohibited take. NMFS shall work with ME DOT to determine what is necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. ME DOT may not resume their activities until notified by NMFS via letter, email, or telephone.

(e) In the event that ME DOT discovers an injured or dead marine mammal, and the lead PSO determines that the cause of the injury or death is unknown and the death is relatively recent (*i.e.*, in less than a moderate state of decomposition as described in the next paragraph), ME DOT will immediately report the incident to NMFS' Permits and Conservation Division, Office of Protected Resources at (301) 427-8401 and the GARFO Stranding Coordinators at (978) 282-8478. The report must include the same information identified above. Activities may continue while NMFS reviews the circumstances of the incident. NMFS will work with ME DOT to determine whether modifications in the activities are appropriate.

(f) In the event that ME DOT discovers an injured or dead marine mammal, and the lead PSO determines that the injury or death is not associated with or related to the activities proposed in the IHA (*e.g.*, previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), ME DOT shall report the incident to NMFS' Permits and Conservation Division, Office of Protected Resources at (301) 427-8401 and the GARFO Stranding Coordinators at (978) 282-8478, within 24 hours of the discovery. ME DOT shall provide photographs or video footage (if available) or other

documentation of the stranded animal sighting to NMFS and the Marine Mammal Stranding Network. ME DOT can continue its operations under such a case.

9. This Authorization may be modified, suspended or withdrawn if the holder fails to abide by the conditions prescribed herein or if the authorized taking is having more than a negligible impact on the species or stock of affected marine mammals, or if there is an unmitigable adverse impact on the availability of such species or stocks for subsistence uses.

10. A copy of this proposed Authorization must be in the possession of each contractor who performs the EBRP in Eastport, ME.

11. This Authorization may be modified, suspended, or withdrawn if the Holder fails to abide by the conditions prescribed herein or if the authorized taking is having more than a negligible impact on the species or stock of affected marine mammals.

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20 January 2017
Date