



Incidental Harassment Authorization

Maine Department of Transportation (ME DOT), 16 State House Station, Augusta, ME 04333, is hereby authorized under section 101(a)(5)(D) of the Marine Mammal Protection Act (16 U.S.C. 1371(a)(5)(D)) and 50 CFR 216.107 to take, by Level B harassment only, small numbers of marine mammals incidental to conducting breakwater replacement in Eastport, Maine, contingent upon the following conditions:

- 1 This Authorization is valid from October 1, 2014, through September 30, 2015.
- 2 This Authorization is valid only for activities associated with Eastport breakwater replacement project in Eastport, Maine.
- 3 (a) The species authorized for incidental harassment takings, Level B harassment only, are: Harbor seal (*Phoca vitulina*), gray seal (*Halichoerus grypus*), harbor porpoise (*Phocoena phocoena*), and Atlantic white-sided dolphin (*Lagenorhynchus acutus*). 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	Estimated marine mammal takes
Harbor seal	456
Gray seal	456
Harbor porpoise	456
Atlantic white-sided dolphin	76

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

- Impact, vibratory, and downhole pile driving;
- Pile removal; and
- Underwater sawing.

(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 Greater Atlantic Region Fisheries



Office (GARFO) (978) 281-9200, National Marine Fisheries Service (NMFS) and the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, at (301) 427-8401, or her designee (301-427-8401).

4 The holder of this Authorization must notify the Chief of the Permits and Conservation Division, Office of Protected Resources, 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) Use of 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) Establishment of Level B Harassment Zones of Influence

(i) Before the commencement of in-water pile driving activities, ME DOT shall establish exclusion zones and zones of influence (ZOIs). These sizes of these initial harassment zones are provided in Table 2 below.

Table 2. Initial harassment zones

	Exclusion Zone (m)	Zone of Influence (m)
Impact Pile Driving	30	1,000
Vibratory Pile Driving	30	1,000
Downhole Pile Driving	333	1,000
Underwater Sawing	30	1,000

(2) Once pile driving starts, ME DOT shall conduct hydroacoustic monitoring to measure noise from in-water construction activities. If hydroacoustic monitoring indicates that threshold isopleths are greater than initial zones in Table 2, ME DOT shall contact NMFS within 48 hours and make the necessary adjustments. Likewise, if threshold isopleths are actually less than initially determined distances, downward adjustments may be made to the exclusion zones and/or ZOIs.

(3) Prior to conducting the above hydroacoustic measurements, ME DOT contractor shall submit a monitoring plan to NMFS for review and approval to ensure that the monitoring methodology is appropriate.

(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 1-minute 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 1-minute waiting period, then two subsequent three-strike sets.

(iii) For underwater sawing, contractors shall turn on the saw 3 or 4 times for 2 to 3 seconds each time over the course of 30 seconds.

(iv) The soft-start procedure will be conducted prior to driving each pile if hammering ceases for more than 30 minutes.

(d) Shutdown Measures

(i) If a marine mammal is sighted within or approaching the exclusion zone 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 exclusion zone or if the animal has not been resighted within 30 minutes.

(ii) If a marine mammal is sighted within or on a path toward the exclusion zone during pile driving, pile driving would cease until that animal has moved out of the exclusion zone or 30 minutes has lapsed since the last sighting

(iii) Although it is unlikely, if a marine mammal that is not covered under the IHA is sighted in the vicinity of the project area and is about to enter the ZOI, ME DOT shall implement shutdown measures to ensure that the animal is not exposed to noise levels that could result a take.

7 Monitoring:

(a) Hydroacoustic Monitoring

(i) Hydroacoustic monitoring shall be performed using appropriate method reviewed and approved by NMFS at the initial installation of each pile driving and pile extraction method and underwater sawing to ensure that the harassment isopleths are not extending past the initial distances established and to assess the efficiency of the sound attenuation devices.

(ii) ME DOT shall conduct in-situ hydroacoustic measurements of any concurrent activities (impact, down-hole, and vibratory installation and vibratory

extraction and sawing of the sheet piles) and adjust the individual Level A and B harassment zones accordingly.

(b) Visual Monitoring

(i) Protected Species Observers

ME DOT shall employ two biologically-trained, NMFS-approved protected species observers (PSOs) to conduct marine mammal monitoring for its Eastport breakwater replacement project.

(ii) Visual monitor the exclusion zone (preliminarily set at 30 m) for marine mammals shall be conducted 30 minutes before, during, and 30 minutes after all impact pile driving activities.

(iii) 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.

(iv) PSOs shall provide 100% coverage for marine mammal exclusion zones and conduct monitoring out to the extent of the relevant Level B harassment zones for vibratory pile driving, vibratory sheet pile driving, vibratory sheet pile extraction, and sheet sawing for at least the majority of time spent (> 50%) conducting each of the four activities.

(v) 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 exclusion zone or Level B harassment isopleth and to record species, behaviors, and responses to pile driving.

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 GARFO or NMFS Office of Protected Resources 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 the Chief of the Permits and Conservation Division, Office of Protected Resources,

NMFS, and the GARFO Stranding Coordinators. 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, Beaufort 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).

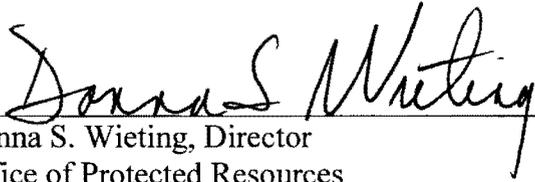
Activities shall not resume until NMFS is able to review the circumstances of the prohibited take. NMFS shall work with ME DOT to determine what is necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. ME DOT may not resume their activities until notified by NMFS 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), GARFO will immediately report the incident to the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, and the GARFO Stranding Coordinators. 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 authorized in the IHA (e.g., previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), ME DOT shall report the incident to the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, and the GARFO Stranding Coordinators, 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 Authorization must be in the possession of each contractor who performs the Eastport breakwater replace work in Eastport, Maine.



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

SEP 24 2014

Date