



INCIDENTAL HARASSMENT AUTHORIZATION

The U.S. Navy (Navy), Naval Base Kitsap Bangor, Washington, 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 Pier Maintenance Project at Bremerton, WA.

1. This Incidental Harassment Authorization (IHA) is valid from December 1, 2013 through March 1, 2014.
2. This IHA is valid only for pile driving activities associated with the Pier Maintenance Project at Naval Base Kitsap Bangor, Washington.
3. General Conditions
 - (a) A copy of this IHA must be in the possession of the Navy, its designees, and work crew personnel operating under the authority of this IHA.
 - (b) The species authorized for taking are the harbor seal (*Phoca vitulina richardii*) and the California sea lion (*Zalophus californianus californianus*).
 - (c) The taking, by Level B harassment only, is limited to the species listed in condition 3(b). See Table 1 (attached) for numbers of take authorized.
 - (d) The taking by injury (Level A harassment), serious injury, or death of any of the species listed in item 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 Navy shall conduct briefings between construction supervisors and crews, marine mammal monitoring team, acoustic monitoring team, and Navy staff prior to the start of all pile driving activity, and when new personnel join the work, in order to explain responsibilities, communication procedures, marine mammal monitoring protocol, and operational procedures.

4. Mitigation Measures

In order to ensure the least practicable impact on the species listed in condition 3(b), the holder of this Authorization is required to implement the following mitigation measures:

- (a) The Navy shall implement shutdown zones sufficient to encompass the estimated distances to the 190 dB rms (re 1 μ Pa) threshold for pinnipeds, in order to prevent unauthorized Level A harassment. The minimum shutdown zone for all pile driving shall be of 10 m radius. If a marine mammal comes within these zones, operations shall cease.

- (b) The Navy shall establish monitoring locations as described below. Please also refer to the Marine Mammal Monitoring Plan (Monitoring Plan; attached).
 - (i) For all vibratory pile removal activities, a minimum of four shore-based observers shall be deployed. Two observers shall be located at the pier work site, with one positioned to achieve optimal monitoring of the shutdown zone and the second positioned to achieve optimal monitoring of surrounding waters of Sinclair Inlet. The two additional observers shall be deployed for optimal monitoring of the further extent of the estimated disturbance zone, with one at the eastern extent in the Manette neighborhood of Bremerton, and one at the southern extent near the Annapolis ferry landing in Port Orchard.
 - (ii) For all vibratory pile removal activities, a minimum of one vessel-based observer shall be deployed and shall conduct regular transits through the estimated disturbance zone for the duration of the activity.
 - (iii) For all impact pile driving activities, a minimum of one shore-based observer shall be located at the pier work site.
 - (iv) These observers shall record all observations of marine mammals, regardless of distance from the pile being driven, as well as behavior and potential behavioral reactions of the animals. If any killer whales, grey whales, or Steller sea lions are detected, activity must not begin or must shut down.
 - (v) All observers shall be equipped for communication of marine mammal observations amongst themselves and to other relevant personnel (e.g., those necessary to effect activity delay or shutdown).
- (c) Prior to the start of pile driving on any day, the Navy shall take measures to ensure that no species for which incidental take is not authorized are located within the vicinity of the action area, to include the following:
 - (i) Observers shall scan the floating security barrier to ensure that no Steller sea lions are present.
 - (ii) The Navy shall contact and/or review the latest sightings data from the Orca Network and/or Center for Whale Research, including passive acoustic detections, to determine the location of the nearest marine mammal sightings.
- (d) Monitoring shall take place from 15 minutes prior to initiation of pile driving activity through 30 minutes post-completion of pile driving activity. Pre-activity monitoring shall be conducted for 15 minutes to ensure that the shutdown zone is clear of marine mammals, and 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, animals shall be allowed to remain in the shutdown zone (i.e., must leave of their own volition) and their behavior shall be monitored and documented. Monitoring

shall occur throughout the time required to drive a pile. The shutdown zone must be determined to be clear during periods of good visibility (i.e., the entire shutdown zone and surrounding waters must be visible to the naked eye).

- (e) If a marine mammal approaches or enters the shutdown zone, all pile driving activities at that location shall be halted. If pile driving is halted or delayed due to the presence of a marine mammal, the activity 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 re-detection of the animal.
- (f) Monitoring shall be conducted by qualified observers, as described in the Monitoring Plan. Trained observers shall be placed from the best vantage point(s) practicable to monitor for marine mammals and implement shutdown or delay procedures when applicable through communication with the equipment operator.
- (g) The Navy shall use soft start techniques recommended by NMFS for impact pile driving. The soft start requires contractors to provide an initial set of strikes from the impact hammer at reduced energy, followed by a 30-second waiting period, then two subsequent reduced energy strike sets. Soft start shall 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 30 minutes or longer.
- (h) Pile driving shall only be conducted during daylight hours.

5. Monitoring

The holder of this Authorization is required to conduct marine mammal monitoring during pile driving activity. Monitoring and reporting shall be conducted in accordance with the Monitoring Plan.

- (a) The Navy shall collect sighting data and behavioral responses to pile driving for marine mammal species observed in the region of activity during the period of activity. All observers shall be trained in marine mammal identification and behaviors, and shall have no other construction related tasks while conducting monitoring.
- (b) For all marine mammal monitoring, the information shall be recorded as described in the Monitoring Plan.
- (c) The Navy shall conduct acoustic monitoring sufficient to measure underwater and airborne source levels for vibratory removal of timber piles and impact driving of concrete piles. Minimum requirements include:
 - (i) Measurements shall be taken for a minimum of ten piles of each type.
 - (ii) Each hydrophone (underwater) and microphone (airborne) shall be calibrated prior to the beginning of the project and shall be checked at the beginning of each day of monitoring activity.

- (iii) Environmental data shall be collected including but not limited to: wind speed and direction, wave height, water depth, precipitation, and type and location of in-water construction activities, as well other factors that could contribute to influencing the airborne and underwater sound levels measured (e.g. aircraft, boats).
- (iv) The construction contractor shall supply the Navy and monitoring personnel with an estimate of the substrate condition, hammer model and size, hammer energy settings and any changes to those settings during the piles being monitored.
- (v) Post-analysis of data shall include the average, minimum, and maximum rms values and frequency spectra for each pile monitored. If equipment used is able to accommodate such a requirement, average, minimum, and maximum peak values shall also be provided.

6. Reporting

The holder of this Authorization is required to:

- (a) Submit a draft report on all monitoring conducted under the IHA within 45 days of the completion of marine mammal and acoustic monitoring, or 60 days prior to the issuance of any subsequent IHA for this project, whichever comes first. A final report shall be prepared and submitted within 30 days following resolution of comments on the draft report from NMFS. This report must contain the informational elements described in the Monitoring Plan, at minimum (see attached), and shall also include:
 - (i) Detailed information about any 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.
 - (ii) 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.
 - (iii) A refined take estimate based on the number of marine mammals observed during the course of construction activities.
 - (iv) Results of acoustic monitoring, including the information described in condition 5(c) of this authorization.
- (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 an injury (Level A harassment), serious injury, or mortality, Navy shall immediately cease the specified activities and report the incident to the Chief of the Permits and Conservation Division (301-427-8425), Office of Protected Resources, NMFS, and the Northwest Regional Stranding Coordinator

(206-526-6550), 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 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).

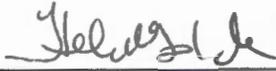
Activities shall not resume until NMFS is able to review the circumstances of the prohibited take. NMFS will work with Navy to determine what measures are necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. Navy may not resume their activities until notified by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

- (ii) In the event that Navy 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), Navy shall immediately report the incident to the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, and the Northwest Regional 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 Navy to determine whether additional mitigation measures or modifications to the activities are appropriate.

- (iii) In the event that Navy 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), Navy shall report the incident to the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, and the Northwest Regional Stranding Coordinator, NMFS, within 24 hours of the discovery. Navy 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 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.

11/14/13
Date _____

Table 1. Authorized take numbers, by species

Species	Authorized Take
Harbor seal	715
California sea lion	2,730