



LETTER OF AUTHORIZATION

The U.S. Navy (Navy) and its designees are hereby authorized under section 101(a)(5)(A) of the Marine Mammal Protection Act (MMPA; 16 U.S.C. 1371(a)(5)(A)) to incidentally harass marine mammals incidental to construction at Naval Station Norfolk in Norfolk, Virginia, subject to the provisions of the MMPA and the Regulations Governing Taking and Importing Marine Mammals Incidental to U.S. Navy Construction of the Pier 3 Replacement Project at Naval Station Norfolk at Norfolk, Virginia (50 CFR Part 217 Subpart L) (Regulations).

1. This letter of authorization (LOA) is valid from May 18, 2023 through May 18, 2028.
2. This Authorization is valid only for take incidental to the specified Navy in-water construction activities in Norfolk, Virginia. Hereafter (unless otherwise specified) the term “in-water construction activities” is used to refer to vibratory pile installation and removal, impact pile installation, and drilling.
3. General Conditions
 - (a) A copy of this LOA must be in the possession of the Holder of the Authorization (Holder or Navy), supervisory construction personnel, lead protected species observers (PSOs), and any other relevant designees of the Navy operating under the authority of this LOA at all times that activities subject to this LOA are being conducted.
 - (b) The species and/or stocks authorized for taking are listed in Table 1. Authorized take, by Level A and B harassment, is limited to the species and numbers listed in Table 1.
 - (c) The taking by serious injury or death of any of the species listed in Table 1 or any taking of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this LOA. Any taking exceeding the authorized amounts listed in Table 1 is prohibited and may result in the modification, suspension, or revocation of this LOA.
 - (d) The Holder must ensure that construction supervisors and crews, the monitoring team, and relevant Navy staff are trained prior to the start of all activities subject to this LOA, so that responsibilities, communication procedures, monitoring protocols, and operational procedures are clearly understood. New personnel joining during the project must be trained prior to commencing work.
4. Mitigation Requirements
 - (a) The Holder must employ PSOs and establish monitoring locations as described in section 5 of this LOA and in the NMFS-approved Marine Mammal Monitoring Plan. The Navy must monitor the project area to the maximum extent possible based on the required number of PSOs, required monitoring locations, and environmental conditions.



- (b) Monitoring must take place from 30 minutes prior to initiation of pile driving or drilling activity (*i.e.*, pre-start clearance monitoring) through 30 minutes post-completion of pile driving or drilling activity.
- (c) The Holder, construction supervisors and crews, PSOs, and relevant Navy staff must avoid direct physical interaction with marine mammals during construction activity. If a marine mammal comes within 10 meters of such activity, operations must cease and vessels must reduce speed to the minimum level required to maintain steerage and safe working conditions, as necessary to avoid direct physical interaction.
- (d) Pre-start clearance monitoring must be conducted during periods of visibility sufficient for the lead PSO to determine that the shutdown zones are clear of marine mammals. Pile driving and drilling may commence following 30 minutes of observation when the determination is made that the shutdown zones are clear of marine mammals.
- (e) For all in-water construction activities, the Holder must implement shutdown zones with radial distances as identified in Table 2. If a marine mammal is observed entering or within the shutdown zone, such operations must be delayed or halted.
- (f) If pile driving and/or drilling is delayed or halted due to the presence of a marine mammal, the activity may not commence or resume until either the animal has voluntarily exited and been visually confirmed beyond the shutdown zone or 15 minutes have passed without re-detection of the animal.
- (g) Pile driving activity must be halted upon observation of either a species for which incidental take is not authorized or a species for which incidental take has been authorized but the authorized number of takes has been met, entering or within the harassment zone.
- (h) The Holder 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 30-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 30 minutes or longer.
- (i) Should environmental conditions deteriorate such that marine mammals within the entire shutdown zone would not be visible (*e.g.*, fog, heavy rain, night), the Holder shall delay in-water construction activities until observers are confident marine mammals within the shutdown zone could be detected.

5. Monitoring Requirements



- (a) Marine Mammal monitoring must be conducted in accordance with the conditions in this section and the Marine Mammal Monitoring Plan. The Navy shall submit a Marine Mammal Monitoring Plan to NMFS for approval in advance of construction.
- (b) Monitoring must be conducted by qualified, NMFS-approved PSOs, in accordance with the following conditions:
 - (i) PSOs must be independent of the activity contractor (for example, employed by a subcontractor) and have no other assigned tasks during monitoring periods.
 - (ii) At least one PSO must have prior experience performing the duties of a PSO during construction activity pursuant to a NMFS-issued incidental take authorization.
 - (iii) Other PSOs may substitute other relevant experience, education (degree in biological science or related field), or training for prior experience performing the duties of a PSO during construction activity pursuant to a NMFS-issued incidental take authorization.
 - (iv) One PSO must be designated as lead PSO or monitoring coordinator. The lead PSO must have prior experience performing the duties of a PSO during construction activity pursuant to a NMFS-issued incidental take authorization.
 - (v) PSOs must be approved by NMFS prior to beginning any activity subject to this LOA.
- (c) For all pile driving activities, a minimum of two observers shall be stationed at the active pile driving site, docks, or piers to monitor the harassment and shutdown zones, and as described in the Marine Mammal Monitoring Plan. For shutdown zones exceeding 1000 meters, a minimum of three observers shall be stationed appropriately, as described in the Marine Mammal Monitoring Plan, to monitor the entire shutdown zone.
- (d) The Holder must monitor the harassment zones to the extent practicable and the entire shutdown zones. The Holder must monitor at least a portion of the Level B harassment zone on all pile driving days.
- (e) The Holder must conduct hydroacoustic data collection in accordance with their Marine Mammal Monitoring Plan that must be approved by NMFS in advance of construction.
- (f) The harassment and/or shutdown zones (Table 2) may be modified with NMFS' approval following NMFS' acceptance of an acoustic monitoring report.



6. Reporting

- (a) The Holder must submit a draft monitoring report to NMFS within 90 calendar days of the completion of each construction year. A draft comprehensive 5-year summary report must also be submitted to NMFS within 90 days of the end of the project. The reports must detail the monitoring protocol and summarize the data recorded during monitoring. Final annual reports and the final comprehensive report must be prepared and submitted within 30 days following resolution of any NMFS comments on the draft report. If no comments are received from NMFS within 30 days of receipt of the draft report, the report must be considered final. If comments are received, a final report addressing NMFS comments must be submitted within 30 days after receipt of comments.
- (b) All draft and final monitoring reports must be submitted to *PR.ITP.MonitoringReports@noaa.gov*.
- (c) The marine mammal report must contain the informational elements described in the Marine Mammal Monitoring Plan and, at minimum, must include:
 - (i) Dates and times (begin and end) of all marine mammal monitoring;
 - (ii) Construction activities occurring during each daily observation period, including:
 - A. The number and type of piles that were driven or removed and by what method (*i.e.*, impact, vibratory, or drilling); and
 - B. The total duration of driving time for each pile/hole (vibratory driving, drilling) and number of strikes for each pile (impact driving).
 - (iii) PSO locations during marine mammal monitoring;
 - (iv) Environmental conditions during monitoring periods (at beginning and end of PSO shift and whenever conditions change significantly), including Beaufort sea state and any other relevant weather conditions including cloud cover, fog, sun glare, and overall visibility to the horizon, and estimated observable distance;
 - (v) Upon observation of a marine mammal, the following information:
 - A. Name of PSO who sighted the animal(s) and PSO location, as well as the activity at time of sighting;
 - B. Time of sighting;



- C. Identification of the animal(s) (*e.g.*, genus/species, lowest possible taxonomic level, or unidentified), PSO confidence in identification, and the composition of the group if there is a mix of species;
 - D. Distances and bearing of each marine mammal observed in relation to the pile being driven or drilled for each sighting (if pile driving or drilling was occurring at time of sighting);
 - E. Estimated number of animals (min/max/best estimate);
 - F. Estimated number of animals by cohort (adults, juveniles, neonates, group composition, etc.);
 - G. Animal's closest point of approach and estimated time spent within the harassment zone;
 - H. Description of any marine mammal behavioral observations (*e.g.*, observed behaviors such as feeding or traveling), including an assessment of behavioral responses thought to have resulted from the activity (*e.g.*, no response or changes in behavioral state such as ceasing feeding, changing direction, flushing, or breaching);
 - I. Number of marine mammals detected within the harassment zones, by species; and
 - J. Detailed information about implementation of any mitigation (*e.g.*, shutdowns and delays), a description of specific actions that ensued, and resulting behavior of the animal, if any;
- (d) The Holder must submit all PSO datasheets and/or raw sighting data with the draft reports referenced in condition 6(a) of this LOA.
 - (e) The Holder must report the hydroacoustic data as described in the Marine Mammal Monitoring Plan.
 - (f) In the event that personnel involved in the construction activities discover an injured or dead marine mammal, the Holder must report the incident to the Office of Protected Resources (OPR), NMFS (*PR.ITP.MonitoringReports@noaa.gov*) and to the Greater Atlantic Region New England/Mid-Atlantic Regional Stranding Coordinator (978-282-8478 or 978-281-9291) as soon as feasible. If the death or injury was clearly caused by the specified activity, the Holder must immediately cease the activities until NMFS OPR is able to review the circumstances of the incident and determine what, if any, additional measures are appropriate to ensure compliance with the terms of this LOA. The Holder must not resume their activities until notified by NMFS.

The report must include the following information:



- (i) Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);
 - (ii) Species identification (if known) or description of the animal(s) involved;
 - (iii) Condition of the animal(s) (including carcass condition if the animal is dead);
 - (iv) Observed behaviors of the animal(s), if alive;
 - (v) If available, photographs or video footage of the animal(s); and
 - (vi) General circumstances under which the animal was discovered.
7. This Authorization may be modified, suspended or revoked if the Holder fails to abide by the conditions prescribed herein (including, but not limited to, failure to comply with monitoring or reporting requirements), or if NMFS determines: (1) the authorized taking is likely to have or is having more than a negligible impact on the species or stocks of affected marine mammals or (2) the prescribed measures are likely not or are not effecting the least practicable adverse impact on the affected species or stocks and their habitat.

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Kimberly Damon-Randall,
Director, Office of Protected Resources
National Marine Fisheries Service



Table 1. Authorized Incidental Take

Year	Species	Take		Total
		Level A	Level B	
2	Humpback whale	0	6	6
	BND - Northern Migratory	0	5609	2705
	BND - Southern Migratory			2705
	BND - NC Estuarine			200
	Harbor porpoise	2	4	6
	Harbor seal	57	949	1006
	Gray seal	0	1	1
3	Humpback whale	0	3	3
	BND - Northern Migratory	0	3061	1431
	BND - Southern Migratory			1431
	BND - NC Estuarine			200
	Harbor porpoise	0	3	3
	Harbor seal	7	537	544
	Gray seal	0	1	1
4	Humpback whale	0	7	7
	BND - Northern Migratory	0	13190	6495
	BND - Southern Migratory			6495
	BND - NC Estuarine			200
	Harbor porpoise	2	5	7
	Harbor seal	26	1783	1809
	Gray seal	0	2	2
5	Humpback whale	0	3	3
	BND - Northern Migratory	0	6620	3210
	BND - Southern Migratory			3210
	BND - NC Estuarine			200
	Harbor porpoise	0	3	3
	Harbor seal	0	1115	1115
	Gray seal	0	2	2

Table 2. Pile Driving Shutdown Zone and Monitoring Zones during Project Activities

LOA Year	Pile type, size, and driving method	Shutdown Distance (m) for Humpback Whales	Shutdown Distance (m) for Harbor Porpoise	Shutdown Distance (m) for all other Species	Level B (Behavioral) Harassment Distance (m) All Marine Mammals
Year 2	Impact Install 42-inch steel pipe piles	1,490	500	200	1,000
	Vibratory Install 42-inch steel pipe piles	140	200	70	2,500
	Impact Install 28-inch steel sheet piles	1,790	500	200	2,500
	Vibratory Install 28-inch steel sheet piles	110	150	80	2,500
	Impact Install 13-inch polymeric piles	20	30	30	30
	Vibratory Install 13-inch polymeric piles	20	30	30	2,500
	Impact Install 24-inch precast concrete bearing piles	260	500	200	117
	Impact Install 18-inch precast concrete fender piles	10	10	10	30
Year 3	Pre-drilling	10	10	10	2,500
	Impact Install 24-inch precast concrete fender piles	40	50	30	120
	Impact Install 18-inch steel piles	700	500	200	30
	Impact Install 42-inch steel pipe piles	1,010	500	200	1,000
	Vibratory Install 42-inch steel pipe piles	90	120	50	2,500
	Impact Install 28-inch steel sheet piles	1,790	500	200	2,500
	Vibratory Install 28-inch steel sheet piles	110	150	70	2,500
	Vibratory Extract 18-inch precast concrete fender piles	40	60	30	2,500
Year 4	Pre-drilling	10	10	10	2,500
	Impact Install 24-inch precast concrete bearing piles	120	150	70	120
	Vibratory Extract 14-inch timber piles	70	110	50	2,500
	Impact Install 18-inch precast concrete fender piles	10	10	10	30
	Impact Install 42-inch steel pipe piles	1,010	500	200	1,000
	Vibratory Install 42-inch steel pipe piles	90	120	50	2,500
	Vibratory Extract 24-inch concrete fender piles	50	70	30	2,500
	Impact Install 28-inch steel sheet piles	1,790	500	200	2,500
	Vibratory Install 28-inch steel sheet piles	120	150	70	2,500
	Vibratory Extract 18-inch precast concrete fender piles	40	60	30	2,500
Year 5	Vibratory Extract 16- to 18-inch precast concrete bearing piles	40	60	30	2,500
	Impact Install 24-inch precast concrete bearing piles	120	150	70	120
	Impact Install 18-inch precast concrete fender piles	10	10	10	30
	Pre-drilling	10	10	10	2,500

