

INCIDENTAL HARASSMENT AUTHORIZATION

The U.S. Navy, Navy Base San Diego 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 incidentally harass marine mammals, under the following conditions:

1. This Incidental Harassment Authorization (IHA) is valid for one year from the date of issuance.
2. This IHA authorizes take incidental to construction activities, specifically pile driving and extraction, as specified in the Navy's IHA application associated with Mole Pier Floating Dry Dock project in San Diego Bay, California.
3. General Conditions
 - a. A copy of this IHA must be in the possession of the Holder of the Authorization (Holder), its designees, lead protected species observers (PSOs), and work crew personnel operating under the authority of this IHA.
 - b. The taking, by Level B harassment only, is limited to the species listed in condition 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 IHA.
 - d. The Holder must ensure that construction supervisors and crews, the monitoring team, and relevant Navy personnel and contractors are trained prior to the start of construction activity subject to this IHA, so that responsibilities, communication procedures, monitoring protocols, and operational procedures are clearly understood and fully executable. New personnel joining during the project must be trained prior to commencing work.
4. Mitigation Requirements
 - a. Oversight: The Navy will oversee work conducted by a contractor and ensuring all work complies with all the mitigation measures listed below. Navy representatives on-site will monitor the contractor's performance and require corrective action or stop work, if necessary, to ensure that requirements are met.
 - b. General Vessel and Machinery Stoppage: For in-water activities, including heavy machinery activities other than pile extraction/installation (e.g., barge movements) or when using vessels, if a marine mammal comes within 10 meters, the activity must cease operations and/or reduce vessel speed to the minimum level required to maintain steerage and safe working conditions.
 - c. Pre-Construction Briefing: Prior to the start of all in-water pile installation or extraction activities, briefings will be conducted for construction supervisors and crews, the monitoring team and when new personnel join the work. The briefing will explain responsibilities, communication procedures, the marine mammal protocols,

and operational procedures for stopping/delaying in-water activities.

- d. Soft Start: Soft start must be used for impact pile driving. The soft start procedure 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 30 minutes or longer.
- e. Shutdown Zones: For all pile driving and extraction activities, the Navy shall implement minimum shutdown zones around the pile being worked, based on the minimum radial distances provided in Table 2 (attached). If a marine mammal comes within or approaches the shutdown zone, such operations shall cease.
- f. Stop Work: Activities must cease if a marine mammal species for which take was not authorized, or a species for which authorization was granted but the authorized number of takes have been met, is observed approaching or within the Level A or Level B harassment zones provided in Table 3 (attached). Activities must not resume until the animal is confirmed to have left the area.

5. Monitoring

The holder of this Authorization is required to conduct marine mammal monitoring during pile driving and extraction, including pre-activity and post-activity monitoring as described in the Monitoring Plan (attached). All relevant in-water demolition and construction activities that have the potential to result in Level A or Level B harassment of marine mammals will be monitored, specifically extraction and installation of piles via a vibratory pile extractor or hammer, as well as during the installation of piles using an impact hammer.

In accordance with the Monitoring Plan, the Navy shall establish monitoring locations positioned at the best practicable vantage points, taking into consideration security, safety, and space limitations and conduct monitoring activities consistent with the criteria provided in the Monitoring Plan (attached). Protected Species Observers shall collect and record sightings and behavioral responses to pile driving and removal activity for marine mammal species observed in the vicinity of activity, during the period of activity. All observers shall have no other project-related tasks while recording data to address the following requirements:

- a. Date and time that pile extraction/installation begins or ends;
- b. Construction activities occurring during each observation period;
- c. Weather parameters (e.g., wind, temperature, percent cloud cover, and visibility);
- d. Tide stage and sea state (The Beaufort Sea State Scale will be used to determine sea-state);
- e. Species, numbers, and, if possible, sex and age class of marine mammals;
- f. Marine mammal behavior patterns observed, including bearing and direction of travel, and if possible, the correlation to Sound Pressure Levels;

- g. Distance from pile installation activities to marine mammals and distance of a sighted marine mammal from the observation point;
- h. Locations of all PSOs; and
- i. Other, relevant human activity in the area.
- j. 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. Where a team of three or more PSOs is required, a lead observer or monitoring coordinator must be designated. The lead observer 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 IHA.

4. Reporting

The holder of this Authorization is required to:

- a. Submit a draft report on all monitoring conducted under the IHA 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.
- b. Submit a final report within thirty 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 from activity being conducted.
- ii. Description of specific actions that ensued to execute and subsequently clear the shutdown, and resulting behavior of the animal, if any.
- iii. Qualitative assessment of mitigation effectiveness, and recommendations to improve results for future, similar projects.

5. Sighting of injured or dead marine mammal

In the event that personnel involved in the survey activities covered by the Authorization site an injured or dead marine mammal, the IHA-holder shall report the incident to the Office of Protected Resources (OPR), NMFS (PR.ITP.MonitoringReports@noaa.gov and ITP.Tucker@noaa.gov) and to the California stranding coordinator (justin.viezbicke@noaa.gov) as soon as feasible. The report must include the following information:

- a. Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);
- b. Species identification (if known) or description of the animal(s) involved;
- c. Condition of the animal(s) (including carcass condition if the animal is dead);
- d. Observed behaviors of the animal(s), if alive;
- e. If available, photographs or video footage of the animal(s); and
- f. General circumstances under which the animal was discovered.

6. Modification

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.

7. Renewal

On a case-by-case basis, NMFS may issue a one-time, one-year Renewal IHA following notice to the public providing an additional 15 days for public comments when (1) up to another year of identical, or nearly identical, activities are planned or (2) the specified activities would not be completed by the time this

IHA expires and a Renewal would allow for completion of the activities, provided all of the following conditions are met:

- a. A request for renewal is received no later than 60 days prior to the needed Renewal IHA effective date (the Renewal IHA expiration date cannot extend beyond one year from expiration of this IHA).
- b. The request for renewal must include the following:
 - i. An explanation that the activities to be conducted under the requested Renewal IHA are identical to the activities analyzed for this IHA, are a subset of the activities, or include changes so minor (e.g., reduction in pile size) that the changes do not affect the previous analyses, mitigation and monitoring requirements, or take estimates (with the exception of reducing the type or amount of take).
 - 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 will remain the same and appropriate, and the findings made in support of this IHA remain valid.

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

Date

Attachments: Tables

Table 1. Authorized take numbers, by species

Species	Authorized Take
California sea lion (<i>Zalophus californianus</i>)	118
Bottlenose dolphin (<i>Tursiops truncatus</i>)	59
Harbor Seal (<i>Phoca vitulina</i>)	59

Table 2. Minimum radial distance to shutdown zones

Activity Description	Pile Size/Type & Source Levels	Shutdown Zones (meters)		
		California sea lions	Harbor seals	Coastal bottlenose dolphins
Vibratory Extraction	24-inch octagonal/square concrete (Production) (162 RMS)	10	10	10
	24-inch octagonal concrete (TPP) (162 RMS)	10	10	10
Impact Driving	24-inch octagonal concrete (TPP) (188 Peak, 176 RMS, 166 SEL)	10	30	10
	24-inch octagonal concrete (Production) (188 Peak, 176 RMS, 166 SEL)	10	60	10

Table 3. Level A and Level B Harassment Zones

Calculated extent of Level A and Level B Harassment Zones					
Activity Description	Pile Size/Type & Source Levels ¹	Level A Harassment Zones ² (meters)			Level B Harassment Zones ² (meters)
		California sea lions	Harbor seals	Coastal bottlenose dolphins	All Species
Vibratory	24-inch octagonal/square concrete (Production) (162 RMS)	0.0	6.8	1.0	3,525 x 1,055 ⁵

Extraction ³	24-inch octagonal concrete (TPP) ⁴ (162 RMS)	0.0	2.3	0.3	
Impact Driving ⁶	24-inch octagonal concrete (TPP) ⁴ (188 Peak, 176 RMS, 166 SEL)	0.0	28.0	1.9	375
	24-inch octagonal concrete (Production) (188 Peak, 176 RMS, 166 SEL)	0.0	58.2	3.9	

Notes:

¹ Sound source levels at 10 meters distance. Units for Peak and RMS are dB re 1 μ Pa. The unit for SEL is dB 1 μ Pa²-sec.

² Level A distances are based on a site-specific model for California sea lions (Dall'Osto and Dahl 2019) and a generic Practical Spreading Loss model (NMFS 2018, 2020) for harbor seals and coastal bottlenose dolphins. The Level A harassment criteria are not exceeded for California sea lions based on the site-specific model (Dall'Osto and Dahl 2019). Level B harassment distances are based on the site-specific model (Dall'Osto and Dahl 2019).

³ Assumes 20 minutes of vibratory pile extraction, Weighting Factor Adjustment of 2.5 kHz, with 5 piles/day for Production, and 1 pile/day for the TPP. While vibratory pile installation is not expected additional monitoring protocols for vibratory pile extraction will be implemented if it becomes necessary.

⁴ The TPP Piles will be installed via an impact hammer prior to the production piles, re-struck for testing approximately one week later, and then removed prior to the start of production pile driving.

⁵ The distances represent the maximum north/south and east/west distance from the pile being driven. These distances are represented by the green line in Figure 6-1 of the Navy's application.

⁶ Assumes 600 strikes per pile, 0.01 second single-strike duration, Weighting Factor Adjustment of 2.0 kHz, with 3 piles/day for Production, and 1 pile/day for the TPP.

Abbreviations: RMS = Root Mean Square; SEL = Sound Exposure Level, TPP = Test Pile Program.