

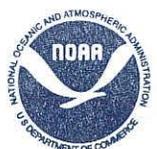


UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

INCIDENTAL HARASSMENT AUTHORIZATION

The U.S. Army Corps of Engineers (Corps) 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 Sand Island Pile Dike System Test Piles Project near the Mouth of the Columbia River.

1. This Incidental Harassment Authorization (IHA) is valid from September 15, 2020 through September 14, 2021.
2. This IHA is valid only for pile installation and removal associated with the Sand Island Pile Dike Test Piles Project.
3. General Conditions
 - (a) A copy of this IHA must be in the possession of the Corps, its designees, work crew personnel, and Protected Species Observers (PSOs) operating under the authority of this IHA.
 - (b) The species authorized for taking are harbor porpoise (*Phocoena phocoena*), Steller sea lion (*Eumetopias jubatus*), California sea lion (*Zalophus californianus*), and harbor seal (*Phoca vitulina*).
 - (c) The taking, by Level A and B harassment only, is limited to the species listed in condition 3(b). Table 1 provides the authorized number of takes per species and stock. The taking by serious injury or death of any of the species listed in condition 3(b) or any taking of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this IHA. Any taking exceeding the authorized amounts listed in Table 1 is prohibited and may result in the modification, suspension, or revocation of this IHA.
 - (d) The Corps is required to conduct briefings for construction supervisors and crews, the monitoring team, and staff prior to the start of all pile removal and installation activity, and when new personnel join the work, in order to explain responsibilities, communication procedures, the marine mammal monitoring protocol, and operational procedures.
 - (e) Pile installation and removal activities authorized under this IHA may only occur during daylight hours.



4. Mitigation Measures

The holder of this IHA is required to implement the following mitigation measures:

- (a) For in-water construction, heavy machinery activities other than pile removal and installation (*e.g.*, use of barge-mounted excavators, or dredging), if a marine mammal comes within 25 meters, the Corps is required to cease operations and reduce vessel speed to the minimum level required to maintain steerage and safe working conditions.
- (b) The Corps is required to employ a minimum of two PSOs during all pile installation and removal activities.
- (c) Marine mammal monitoring must take place from 30 minutes prior to initiation of pile removal and installation activity through 30 minutes post-completion. Pile removal and installation 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 (Table 2), their behavior must be monitored and documented until they leave of their own volition, at which point activities may begin again.
- (d) The established Level A harassment zone for harbor seals must extend to 475 meters during impact driving.
- (e) If a marine mammal is entering or is observed within an established shutdown zone (Table 2), pile removal and installation must be halted or delayed. Pile removal and installation 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 subsequent detections.
- (f) The Corps 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 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 thirty minutes or longer.
- (g) If a species for which authorization has not been granted, or a species for which authorization has been granted but the authorized takes are met, is observed approaching or within the Level B harassment monitoring zone (Table 3), pile removal and installation activities must shut down immediately using delay and shut-down procedures. Activities must not resume until the animal has been confirmed to have left the area or the 15 minute observation time period has elapsed.

5. Monitoring Measures

The holder of this IHA is required to abide by the following marine mammal monitoring measures:

- (a) Marine mammal monitoring during pile removal and installation activities must be conducted by qualified NMFS-approved PSOs in a manner consistent with the following:
 - i. Independent PSOs (*i.e.*, not construction personnel) who have no other assigned tasks during monitoring periods must be used.
 - ii. At least one observer must have prior experience working as an observer.
 - iii. Other PSOs may substitute education (degree in biological science or related field) or training for experience.
 - iv. Where a team of three or more observers are required, one observer should be designated as lead observer or monitoring coordinator. The lead observer must have prior experience working as an observer.
 - v. The Corps must submit PSO CVs for approval by NMFS prior to the onset of pile driving.
- (b) PSOs must have the following additional qualifications:
 - i. Ability to conduct field observations and collect data according to assigned protocols.
 - ii. Experience or training in the field identification of marine mammals, including the identification of behaviors.
 - iii. Sufficient training, orientation, or experience with the construction operation to provide for personal safety during observations.
 - iv. Writing skills sufficient to prepare a report of observations including but not limited to the number and species of marine mammals observed; dates and times when in-water construction activities were conducted; dates, times, and reason for implementation of mitigation (or why mitigation was not implemented when required); and marine mammal behavior.

- v. Ability to communicate orally, by radio or in person, with project personnel to provide real-time information on marine mammals observed in the area as necessary.
- (c) Two PSOs, one stationed near the construction site and one in a boat, must be used to monitor the area during all pile installation and removal activities and shall be placed at the best vantage point(s) practicable to monitor for marine mammals and implement shutdown/delay procedures.
- (d) PSOs are required to scan the waters using binoculars, and/or spotting scopes, and must use a handheld GPS or range-finder device to verify the distance to each sighting from the project site.
- (e) If waters exceed a sea-state which restricts the land or vessel-based observers' ability to make observations within the marine mammal shutdown zone, pile removal and installation shall cease. Pile removal and installation activities shall not be initiated or continue until the entire largest shutdown zone for the activity is visible.
- (f) If the Level B harassment zone has been observed for 30 minutes and non-permitted species are not present within the zone, pile driving activities (soft start procedures required during impact driving) can commence and work can continue even if visibility becomes impaired within the Level B harassment zone. When a marine mammal permitted for take by Level B harassment is present in the Level B harassment zone, activities may begin and take must be recorded.
- (g) If the entire Level B harassment zone is not visible at the start of construction, pile removal and installation activities can begin. If work ceases for more than 30 minutes, the pre-activity monitoring of the Level B harassment, Level A harassment and shutdown zones must commence.
- (h) PSOs are required to work in shifts lasting no longer than 4 hours with at least a 1-hour break between shifts, and must not perform duties as a PSO for more than 12 hours in a 24-hr period.

6. Reporting

The holder of this IHA 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. A final report shall be prepared and submitted within thirty days following resolution of comments on the draft report from NMFS. This report must contain the

informational elements described in the Marine Mammal Monitoring Plan including, but not limited to:

- i. Dates and times (begin and end) of all marine mammal monitoring.
- ii. Construction activities occurring during each daily observation period, including how many and what type of piles were removed or driven and by what method (*i.e.*, impact, vibratory, drilling).
- iii. Weather parameters and water conditions during each monitoring period (*e.g.*, wind speed, percent cover, visibility, sea state).
- iv. The number of marine mammals observed, by species, relative to the pile location and if pile removal or installation was occurring at time of sighting.
- v. Age and sex class, if possible, of all marine mammals observed.
- vi. PSO locations during marine mammal monitoring.
- vii. Distances and bearings of each marine mammal observed to the pile being removed or driven for each sighting (if pile removal or installation was occurring at time of sighting).
- viii. Description of any marine mammal behavior patterns during observation, including direction of travel.
- ix. Number of individuals of each species (differentiated by month as appropriate) detected within the monitoring zone, and estimates of number of marine mammals taken, by species.
- x. Level B harassment exposures recorded by PSOs must be extrapolated based upon the number of observed takes and the percentage of the Level B harassment zone that was not visible.
- xi. Detailed information about any implementation of any mitigation triggered (*e.g.*, shutdowns and delays), a description of specific actions that ensued, and resulting behavior of the animal, if any.
- xii. 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.
- xiii. Marine mammal PSO observational datasheets or raw data.
- xiv. Description of other human activity in the area.

(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 serious injury, or mortality, the Corps must immediately cease the specified activities and report the incident to the NMFS Office of Protected Resources (301-427-8401) and West Coast Regional Stranding Coordinator (206-526-4747). 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 and active sound source use 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 must not resume until NMFS is able to review the circumstances of the prohibited take. NMFS will work with the Corps to determine what measures are necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. The Corps may not resume their activities until notified by NMFS.

ii. In the event the Corps 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), CBS must immediately report the incident to the NMFS Office of Protected Resources and the West Coast Regional Stranding Coordinator. 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 the Corps to determine whether additional mitigation measures or modifications to the activities are appropriate.

- iii. In the event that the Corps 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 specified activities (*e.g.*, previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), the Corps must report the incident to the Office of Protected Resources, NMFS, and the West Coast Regional Stranding Coordinator, NMFS, within 24 hours of the discovery.
7. This Authorization may be modified, suspended or withdrawn if the holder fails to abide by the conditions prescribed herein, or if NMFS determines the authorized taking is having more than a negligible impact on the species or stock of affected marine mammals.
8. Renewals - On a case-by-case basis, NMFS may issue a one-year IHA renewal with an additional 15 days for public comments when (1) another year of identical or nearly identical activities as described in the Specified Activities section of this notice is planned or (2) the activities as described in the Specified Activities section of this notice would not be completed by the time the IHA expires and a second IHA would allow for completion of the activities beyond that described in the Dates and Duration section of this notice, provided all of the following conditions are met:
 - (a) A request for renewal is received no later than 60 days prior to expiration of the current IHA.
 - (b) The request for renewal must include the following:
 - i. An explanation that the activities to be conducted under the requested Renewal are identical to the activities analyzed under the initial 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 because only a subset of the initially analyzed activities remain to be completed under the Renewal).
 - 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 in the initial IHA remain valid.



DEC 16 2019



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

Date

Table 1. Authorized Take by Level A and Level B Harassment.

Species	Level A Take	Level B Take
Harbor porpoise	20	42
California Sea Lion	--	3,119
Stellar Sea Lion	--	3,563
Harbor Seal	76	2,337

Table 2. Shutdown Zone during Project Activities (meters).

Activity	LF Cetacean	MF Cetacean	HF Cetacean	Phocid Pinniped	Otariid Pinniped
24" Steel Pipe Pile Impact Installation	890	35	1050	100	35
24" Steel Pipe Vibratory Installation	25	25	25	25	25
24" Steel Pipe Vibratory Removal	25	25	25	25	25
24" Timber Pile Removal Vibratory	25	25	25	25	25

Table 3. Level B Harassment Monitoring Zones during Project Activities.

Activity	Distance (m)
24" Steel Pipe Pile Impact Installation	1,000
24" Steel Pipe Vibratory Installation	5,420
24" Steel Pipe Vibratory Removal	5,420
24" Timber Pile Removal Vibratory	1,360