



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

FEB 10 2015

Mike Gougherty
San Francisco Bay Area
Water Emergency Transportation Authority
Pier 9, Suite 111, The Embarcadero
San Francisco, CA 94111

Dear Ms. Gougherty,

Enclosed is an Incidental Harassment Authorization (IHA) issued pursuant to section 101(a)(5)(D) of the Marine Mammal Protection Act (16 U.S.C. 1361 et seq.), to take small numbers of marine mammals, by Level B harassment, incidental to the San Francisco Bay Area Water Emergency Transportation Authority Central Bay Operations and Maintenance Facility Project. You are required to comply with the conditions contained in the IHA, including all mitigation, monitoring, and reporting requirements. In addition, you must cooperate with any federal, state, or local agency monitoring the impacts of your activities.

If you have any questions concerning the IHA or its requirements, please contact Shane Guan, Office of Protected Resources (NMFS), at 301-427-8401.

Sincerely,

Donna S. Wieting

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

Enclosure



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Incidental Harassment Authorization

San Francisco Bay Area Water Emergency Transportation Authority (WETA), Pier 9, Suite 111, The Embarcadero, San Francisco, California 94111, 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 Central Bay Operations and Maintenance Facility construction project in Alameda, California, contingent upon the following conditions:

- 1 This Authorization is valid from December 1, 2015, through November 30, 2016.
- 2 This Authorization is valid only for activities associated with WETA Central Bay Operations and Maintenance Facility construction project in Alameda, California.
- 3 (a) The species authorized for incidental harassment takings, Level B harassment only, are: Harbor seal (*Phoca vitulina*) and California sea lion (*Zalophus californianus*). 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	260
California sea lion	260

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

- Impact and vibratory pile driving; and
- Pile removal.

(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 West Coast Regional Administrator (206-526-4489), National Marine Fisheries Service (NMFS) and the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, at (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, a pile driving energy attenuator (such as an air bubble curtain system) shall be used for all impact pile driving.

(b) Time Restriction

(i) Work would occur only during daylight hours, when visual monitoring of marine mammals can be conducted.

(ii) All in-water construction shall be limited to the period between August 1 and November 30, 2016.

(c) Establishment of Level B Harassment Zones of Influence

(i) Before the commencement of in-water pile driving activities, WETA shall establish zones of influence (ZOIs). These sizes of modeled ZOIs are provided in Table 2 below.

Table 2. Initial harassment zones

Pile Driving Methods	Pile Material and Size	Distance to 120 dB re 1 μ Pa (rms) (m)	Distance to 160 dB re 1 μ Pa (rms) (m)
Impact pile driving with air bubble curtain	30" epoxy coated steel piles	NA	250
	24" epoxy coated steel piles	NA	185
	18" epoxy coated steel piles	NA	93
Vibratory pile driving	18" plastic fender piles	2,154	NA

(2) By using a pile driving energy attenuator (such as an air bubble curtain system), there will be no acoustic exclusion zone for impact pile driving. There will also be no acoustic exclusion zone for vibratory pile driving. However, a minimum shutdown zone of 10 m shall be established during all pile driving and removal activities, regardless of the estimated zone.

(3) Once the underwater acoustic measurements are conducted during initial test pile driving, WETA shall adjust the sizes of the exclusion zones and ZOIs only if

the measured exclusion zones and ZOIs are larger than modeled zones. Specifically, if impact pile driving hydroacoustic results show that an acoustic exclusion zone exists (> 190 dB) and is larger than 10 m, despite the use of attenuator, an exclusion zone at the 190 dB contour line shall be established.

(c) Soft Start: When initiating pile driving, or when there has been downtime of 30 minutes or more without pile driving, the contractor will initiate the driving with ramp-up procedures described below.

(i) For vibratory hammers, the contractor shall initiate the driving for 15 seconds at reduced energy, followed by a 1 minute waiting period. This procedure shall be repeated two additional times before continuous driving is started. This procedure shall also apply to vibratory pile extraction.

(ii) For impact driving, an initial set of three strikes would be made by the hammer at 40 percent energy, followed by a 1-minute waiting period, then two subsequent three-strike sets at 40 percent energy, with 1-minute waiting periods, before initiating continuous driving.

(d) Shutdown Measures

(i) WETA shall implement shutdown measures for pile driving or pile removal activities if a marine mammal is sighted within or is about to enter the exclusion zone, either the pre-established 10 m zone or the measured exclusion zone, whichever is larger.

(ii) WETA shall discontinue pile driving or pile removal activities if a marine mammal within a ZOI appears disturbed by the work activity. Work may not resume until the animal is seen to leave the ZOI or 30 minutes have passed since the disturbed animal was last sighted.

7 Monitoring:

(a) Visual Monitoring

(i) Protected Species Observers

WETA shall employ NMFS-approved protected species observers (PSOs) to conduct marine mammal monitoring for its construction project.

(ii) The PSOs will observe and collect data on marine mammals in and around the project area for 30 minutes before, during, and for 30 minutes after all pile removal and pile installation work. If a PSO observes a marine mammal within a ZOI that appears to be disturbed by the work activity, the PSO will notify the work crew to initiate shutdown measures.

(iii) Monitoring of marine mammals around the construction site shall be conducted using high-quality binoculars (e.g., Zeiss, 10 x 42 power).

(iv) Marine mammal visual monitoring shall be conducted from the best vantage point available, including the WETA pier, jetty, and adjacent docks within the harbor, to maintain an excellent view of the ZOIs and adjacent areas during the survey period. Monitors would be equipped with radios or cell phones for maintaining contact with work crews.

(b) Data Collection:

Data collection during marine mammal monitoring shall consist of a count of all marine mammals by species, a description of behavior (if possible), location, direction of movement, type of construction that is occurring, time that pile replacement work begins and ends, any acoustic or visual disturbance, and time of the observation. Environmental conditions such as weather, visibility, temperature, tide level, current, and sea state would also be recorded.

8 Reporting:

(a) WETA 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 West Coast Regional Office (WCRO) 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), WETA 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 WCRO 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 WETA to determine what is necessary to

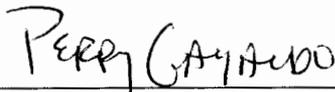
minimize the likelihood of further prohibited take and ensure MMPA compliance. WETA may not resume their activities until notified by NMFS via letter, email, or telephone.

(e) In the event that WETA 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), WCRO will immediately report the incident to the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, and the WCRO 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 WETA to determine whether modifications in the activities are appropriate.

(f) In the event that WETA 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), WETA shall report the incident to the Chief of the Permits and Conservation Division, Office of Protected Resources, NMFS, and the WCRO Stranding Coordinators, within 24 hours of the discovery. WETA shall provide photographs or video footage (if available) or other documentation of the stranded animal sighting to NMFS and the Marine Mammal Stranding Network. WETA 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 WETA Central Bay Operations and Maintenance Facility Project.



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

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Date