



# MARINE MAMMAL COMMISSION

20 May 2015

Ms. Jolie Harrison, Chief  
Permits and Conservation Division  
Office of Protected Resources  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910-3225

Dear Ms. Harrison:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the application submitted by the California Department of Transportation (CALTRANS) seeking authorization under section 101(a)(5)(D) of the Marine Mammal Protection Act (the MMPA) to take small numbers of marine mammals by harassment. The taking would be incidental to dismantling activities associated with replacement of the east span of the San Francisco-Oakland Bay Bridge in California. The incidental harassment authorization would be valid for a one-year period. The Commission also has reviewed the National Marine Fisheries Service's (NMFS) 28 April 2015 notice (80 Fed. Reg. 23774) announcing receipt of the application and proposing to issue the authorization, subject to certain conditions. Since 2002 the Commission has commented on multiple incidental harassment authorization requests related to replacement of the bridge.

## Background

Although dismantling activities began in 2014, those activities likely will continue for approximately two more years. The requested incidental harassment authorization would be valid for one year only, with CALTRANS seeking renewal for subsequent years. Activities would include the installation of up to 200 temporary falsework piles to support various superstructures and trestles. Those piles would include 14-in H-piles and 18- to 36-in steel pipe piles. CALTRANS would install H-piles using an impact hammer. Both vibratory and impact hammers could be used to install pipe piles depending on the substrate. In addition, CALTRANS would remove various bridge superstructures including trusses, road decks, and steel and concrete support towers. The concrete foundation of the bridge would be removed using various mechanical means including saw cutting, flame cutting, mechanical splitting, drilling, pulverizing, and/or hydrocutting. CALTRANS would conduct all in-water activities on approximately 128 days during daylight hours only.

NMFS preliminarily has determined that, at most, the proposed activities temporarily would modify the behavior of small numbers of harbor seals, California sea lions, harbor porpoises, and gray whales. NMFS anticipates that any impact on the affected species and stocks would be negligible. NMFS also does not anticipate any take of marine mammals by death or serious injury and believes that the potential for disturbance will be at the least practicable level because of the proposed mitigation measures. The mitigation, monitoring, and reporting measures include—

- using sound attenuation devices for impact pile driving of pipe piles, but not during pile proofing or impact driving of H-piles;
- limiting impact driving of pipe piles to a maximum of 20 piles per day and limiting proofing of the pipe piles to a maximum of 2 piles per day—each pile would be driven with no more than 20 blows during a one-minute period;
- conducting in-situ source level and sound propagation measurements to verify and adjust the respective Level A and B harassment zones for pile driving and dismantling activities, as necessary;
- using delay procedures for all monitored activities and shut-down procedures during dismantling activities only;
- using ramp-up procedures before vibratory and impact pile driving of each pile;
- using a NMFS-approved protected species observer to monitor the (1) Level A harassment zones 30 minutes prior to, during, and 30 minutes after activities during at least (a) 100 percent of unattenuated impact driving of H-piles, (b) 100 percent of attenuated impact driving of pipe piles, and (c) 100 percent of dismantling activities and (2) Level B harassment zones 30 minutes prior to, during, and 30 minutes after activities during at least (a) 100 percent of unattenuated impact driving of H-piles, (b) 20 percent of attenuated impact driving of pipe piles, (c) 20 percent of vibratory pile driving, and (d) 20 percent of dismantling activities;
- reporting injured and dead marine mammals to NMFS and the local stranding network using NMFS's phased approach and suspending activities, if appropriate; and
- submitting weekly monitoring reports and a final report.

### **Mitigation and monitoring measures**

The proposed authorization would require monitoring by protected species observers to implement delay procedures for all in-water sound-producing activities and shut-down procedures for dismantling activities and to validate take estimates and document marine mammal responses to a portion of the activities. Specifically, the authorization would require monitoring of the Level A harassment zone, if applicable, during 100 percent of dismantling activities and the Level B harassment zone during 20 percent of dismantling activities. In addition, it would require monitoring of the Level A and B harassment zones for (1) 100 percent of unattenuated impact driving of H-piles, (2) at least 20 percent of attenuated impact driving of pipe piles, and (3) at least 20 percent of vibratory pile driving. Previous incidental harassment authorizations for this bridge project required CALTRANS to monitor the Level A harassment zone for all in-water pile-driving activities (76 Fed. Reg. 7156) and to estimate the number of marine mammals harassed during pile-driving activities. However, it is unclear whether those previous authorizations required CALTRANS to monitor the entire extent of the Level B harassment zone.

NMFS indicated in the issuance of the recent incidental harassment authorizations (78 Fed. Reg. 2371, 79 Fed. Reg. 2422) that the extent of proposed work made it infeasible and costly for CALTRANS to implement marine mammal monitoring for Level A and B harassment zones at all times, particularly since the Level B harassment zone for vibratory pile driving extends to a radius of 2 km. For a number of reasons, the Commission believes that protected species observers should be monitoring the construction during all in-water sound-producing activities (i.e., vibratory and impact

pile driving and dismantling activities). Marine mammal responses to dismantling activities have yet to be studied and responses to vibratory pile driving are not as well studied as impact pile driving.

In addition, the numbers and species of marine mammals taken during the proposed activities may not be determined accurately if monitoring occurs only for a portion of the activities. For example, monitoring during the last authorization occurred on 42 days, which accounted for 95 percent of the in-water activities at one site and 30 percent at the other site (CALTRANS 2015). Although one California sea lion and one harbor porpoise were observed within the Level B harassment zone prior to pile driving, neither California sea lions nor harbor porpoises were reported to be taken during the activities. If monitoring only occurs during a minimum of 20 percent of the activities, the numbers of marine mammals taken (specifically California sea lions and harbor porpoises) known to occur in the project area likely are underestimated. Therefore, monitoring during all in-water sound-producing activities is the only way for CALTRANS and NMFS to be confident that the numbers of marine mammals taken are within the limits authorized and the least practicable impact occurs. For these reasons, the Commission recommends that NMFS require CALTRANS to implement full-time monitoring of Level A and B harassment zones during all in-water sound-producing activities (i.e., pile-driving and dismantling activities).

### **Description of proposed activities**

In the *Federal Register* notice, NMFS indicated that there has been no change in the scope of work for the project from what was outlined in CALTRANS's 13 April 2013 incidental harassment authorization application, the *Federal Register* notice for that proposed incidental harassment authorization (78 Fed. Reg. 60852), and the *Federal Register* notice for issuance of that authorization (79 Fed. Reg. 2421). Accordingly, NMFS did not include a detailed description of the proposed activities in the current notice and instead referred the reader to the previous documents for this information. The Commission notes, however, that those referenced documents also do not include detailed descriptions since NMFS took the same approach in its 2013 notice. Specifically, it directed the reader to CALTRANS's 23 April 2012 incidental harassment application, the *Federal Register* notice for that proposed incidental harassment authorization (77 Fed. Reg. 50473), and the *Federal Register* notice for issuance of that authorization (78 Fed. Reg. 2371). Although NMFS indicated that the proposed activities have not changed, the current *Federal Register* notice indicated 200 steel piles would be installed but did not include the type or size of those piles, nor did it indicate how those piles would be installed and which ones, if any, would be removed. Those details differ from what was included in the previous applications and *Federal Register* notices.

The Commission notes that each authorization under section 101(a)(5)(D) is a separate undertaking and should contain sufficient information to allow for meaningful public review and comment. The Commission recommended in 2013 that NMFS include in each proposed incidental harassment authorization it publishes in the *Federal Register* a detailed description of the proposed activities rather than referring to previous documents. NMFS agreed and stated that it would provide such detailed descriptions in the *Federal Register* notices for proposed incidental harassment authorizations moving forward (see 79 Fed. Reg. 2422). However, NMFS's current notice included no such description. To ensure the transparency of the process, the Commission again recommends that NMFS include in each proposed incidental harassment authorization that the Service publishes in the *Federal Register* a detailed description of the proposed activities rather than referring to previous documents.

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The Commission hopes you find its letter useful. Please contact me if you have questions regarding the MMC's recommendations and rationale.

Sincerely,



Rebecca J. Lent, Ph.D.  
Executive Director

### **Reference**

CALTRANS. 2015. San Francisco–Oakland Bay Bridge East Span Seismic Safety Project: Marine mammal monitoring annual report for pile driving and mechanical demolition January 8, 2014 –January 7, 2015. State of California Department of Transportation. 22 pages.