




MEMORANDUM FOR: The Record

FROM: Donna S. Wieting, 
Director, Office of Protected Resources

SUBJECT: Environmental Review for Issuance of an Incidental Harassment Authorization to the California Department of Transportation (CALTRANS)

NOAA Administrative Order (NAO) 216-6A requires all proposed actions to be reviewed with respect to environmental consequences on the human environment. This memorandum addresses the determination that the issuance of an Incidental Harassment Authorization (IHA) to the CALTRANS is adequately assessed in previous Environmental Assessment (EA) and Supplemental Environmental Assessment (SEA) analyses and that the Finding of No Significant Impact (FONSI) prepared by the National Marine Fisheries Service (NMFS) in 2015 adequately addresses the expected impacts such that no further National Environmental Policy Act (NEPA) review is required. The original EA for take of marine mammals incidental to the construction and demolition of the East Span of the San Francisco-Oakland Bay Bridge (SFOBB) was completed on November 4, 2003. Due to project modifications, an SEA was prepared and a FONSI completed on August 5, 2009. In addition, for CALTRANS' demolition of Piers E4 and E5 using controlled implosion, NMFS prepared a SEA and issued another FONSI on September 3, 2015. In 2016, NMFS received another application for an IHA from CALTRANS and reviewed the 2015 SEA/FONSI, determining that the proposed activity and expected impacts remained within what was previously analyzed and that no additional NEPA analysis was warranted. On April 19, 2017, NMFS received another application for an IHA from CALTRANS to take marine mammals incidental to continued demolition of the original east span of the SFOBB utilizing controlled charges to implode 13 piers (Piers E6-E18), which is adequately addressed in previous EA/SEA/FONSIs prepared by NMFS.

Federal Action

NMFS proposes to issue another IHA to CALTRANS pursuant to Section 101(a)(5)(D) of the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. §§ 1631 *et seq.*) and the regulations governing the taking and importing of marine mammals (50 Code of Federal Regulations [CFR] Part 216). The IHA will be valid from September 1, 2017 through August 31, 2018 and authorizes take, by Level B harassment, of the following marine mammal species incidental to the proposed dismantling of the original east span of the SFOBB in the San Francisco Bay utilizing highly controlled charges to implode Piers E6 through E18 (13 piers in total).

- Pacific harbor seal (*Phoca vitulina*)
- California sea lion (*Zalophus californianus*)
- Northern elephant seal (*Mirounga angustirostris*)



- Harbor porpoise (*Phocoena phocoena*)
- Northern fur seal (*Callorhinus ursinus*)
- Bottlenose dolphin (*Tursiops truncatus*).

The MMPA prohibits the incidental taking of marine mammals. The incidental take of a marine mammal falls under three categories: mortality, serious injury or harassment (injury and behavioral effects). Harassment, as defined by the MMPA, is any act of pursuit, torment, or annoyance that has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment) or has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns (Level B harassment). Disruption of behavioral patterns includes, but is not limited to, migration, breathing, nursing, breeding, feeding or sheltering. However, there are exceptions to the prohibition on take under the MMPA that give NMFS the authority to permit the incidental taking of small numbers of marine mammals by harassment upon request from a United States citizen, provided certain determinations are made and statutory and regulatory procedures are met. NMFS' criteria for issuing IHAs requires that the taking of marine mammals have a negligible impact on the species or stock(s) and, where relevant, will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses. In addition, the IHA must set forth, where applicable, the permissible methods of taking, other means of effecting the least practicable adverse impact on the species or stock and its habitat, and requirements pertaining to the monitoring and reporting of such takings.

Background

In 2001, in accordance with the MMPA, CALTRANS requested authorization from NMFS for potential harassment of small numbers of marine mammals incidental to conducting the SFOBB project. NMFS prepared an EA for the take of marine mammals incidental to the construction of the East Span of the SFOBB and made a FONSI on November 4, 2003. On November 10, 2003 NMFS issued an IHA for the SFOBB activities and subsequent IHAs were issued in 2005 and 2007 using the EA/FONSI prepared for the 2003 activity. Due to modification of part of the construction project and the mitigation measures, NMFS reviewed additional information from CALTRANS regarding measurements from pile driving and the use of vibratory pile driving. NMFS prepared a SEA and analyzed potential impacts to marine mammals that would result from the action. A FONSI was signed on August 5, 2009 and another IHA was issued to CALTRANS in 2009 followed by subsequent IHAs in 2010, 2013, 2014, and July 2015. NMFS prepared an additional SEA for the take of marine mammals incidental to CALTRANS' demolition of SFOBB piers by implosion using highly controlled charges. A FONSI was signed for this action on September 3, 2015 and another IHA was issued to CALTRANS in September 2015. The activity and expected impacts of the current IHA application remain within what was previously analyzed in the EAs and SEA. Therefore, no additional environmental analysis is warranted.

A. Applicant's Incidental Take Request(s)

- i. Current Request. On April 5, 2017, CALTRANS submitted an IHA application and marine mammal mitigation and monitoring plan (4MP) for the taking of small numbers of marine mammal species incidental to the aforementioned SFOBB

activities. NMFS determined the application and the 4MP were adequate and complete on May 1, 2017, and published a proposed IHA in the Federal Register (82 FR 26063; June 6, 2017) that included the following information:

- Detailed description of the proposed action and an assessment of the potential impacts on marine mammals and the availability of marine mammals for subsistence uses
 - Proposed mitigation and monitoring measures to avoid and minimize potential adverse impacts to marine mammals and their habitat
 - Proposed reporting requirements
 - Preliminary findings under the MMPA
 - A link to the EA and FONSI for the IHA published in 2016.
- ii. Previous Request(s). On September 15, 2016, NMFS issued an IHA to CALTRANS to take small numbers of marine mammals incidental to activities associated with the dismantling of the original East Span of the SFOBB, specifically vibratory pile driving, vibratory pile extraction/removal, attenuated impact pile driving, pile proof testing, and the use of highly controlled charges to dismantle the E4 and E5 pier marine foundations (81 FR 67313; September 30, 2016). The monitoring report for the 2016 activity under the 2016 IHA indicated that a total of two marine mammal species of various individuals were exposed to Level B noise levels but below the levels of Level A harassment. A summary of the authorized marine mammal and reported takes from exposure to received noise levels above Level B thresholds during CALTRANS' 2016 SFOBB activities is depicted in Table 1 below compared to actual reported takes and estimated Level B take associated with the 2017 IHA for highly controlled charges to implode 13 piers of the original East Span of the SFOBB.

Table 1. Authorized and Actual Level B Take for 2016 and Requested Take Compared to Calculated Take for 2017

| <i>Species</i> | <i>Authorized Level B take in 2016 IHA</i> | <i>Actual Level B take 2016 IHA</i> | <i>Estimated Level B take in proposed 2017 IHA (calculated take*)</i> |
|------------------------|--|-------------------------------------|---|
| Pacific harbor seal | 18 | 3 | 114 (39) |
| California sea lion | 4 | 1 | 30 (0) |
| Northern elephant seal | 3 | 0 | 9 (0) |
| Harbor porpoise | 9 | 0 | 27 (0) |
| Bottlenose dolphin | 4 | 0 | 9 (0) |
| Northern fur seal | 2 | 0 | 9 (0) |
| TOTAL: | 40 | 4 | 198 (39) |

* Calculated takes, based on modeling, only predict 39 takes of harbor seals; however, Caltrans is requesting additional takes due to variability in animal presence and movement.

B. Previous Environmental Assessment

NMFS' issuance of an IHA is considered a major federal action under NEPA, therefore, the Office of Protected Resources (OPR) prepared an EA for the initial incidental take request in accordance with NEPA and the Council on Environmental Quality (CEQ) regulations in 40 CFR §§ 1500-1508. This analysis was supplemented twice, most recently to address highly controlled charges to dismantle, through implosion, piers of the original East Span of the SFOBB¹. The analysis in the SEA addressed the potential impacts to the human environment and natural resources; specifically from NMFS proposed action to authorize takes of marine mammals incidental to CALTRANS' proposed use of highly controlled charges to dismantle, through implosion, piers of the original East Span of the SFOBB. The range of alternatives included the No Action alternative (not issuing an IHA) and the Preferred Alternative (issuing the IHA). NMFS analyzed direct, indirect, and cumulative impacts and based the scope of its proposed action and alternatives on the relevant requirements in section 101(a)(5)(D) of the MMPA. Based on the findings under the MMPA for CALTRANS' proposed activities and the conclusions in the Final SEA, NMFS determined that no significant impacts to the human environment would occur from issuing an IHA and signed a FONSI on September 3, 2015. The 2016 IHA relied on the 2015 NEPA analyses, and these documents are available at www.nmfs.noaa.gov/pr/permits/incidental/research.htm.

Findings and Conclusions

A. Environmental Review

After reviewing and considering (1) the application, (2) the 2015 SEA and FONSI and (3) the 2016 monitoring report, NMFS determined renewing CALTRANS' IHA falls within the scope of the analysis in the 2015 SEA. There are no changes to NMFS' proposed action and alternatives for the issuance of this IHA and although there are minor changes to the nature of the activities and marine mammal species (see below), there are no changes to the affected environment nor will the minor changes to the nature of the activities result in adverse effects to the marine mammal species or stocks. The proposed SFOBB dismantling activities will occur within the same geographic areas analyzed in the original 2003 EA and subsequent 2009 and 2015 SEAs. No new significant circumstances or information relevant to environmental concerns associated with the IHA renewal were identified during the environmental review or the public comment period for the proposed IHA. In addition, monitoring and mitigation requirements have remained the same.

The applicant is proposing to conduct 2017 activities in the same manner as previously analyzed in the 2015 SEA and 2016 IHA, which relied on the 2015 SEA/FONSI, with the exception that there would be no pile driving associated with the 2017 activities (only the use of highly controlled charges to dismantle piers). The 2015 SEA/FONSI were developed for a demonstration project to dismantle one pier, and that analysis was used in the 2016 IHA for dismantling two piers. In the 2017 IHA, this same analysis is applicable to the dismantling of 13 piers (to be dismantled

¹ Final Supplemental Environmental Assessment and Finding of No Significant Impacts for the Issuance of an Incidental Harassment Authorization to the California Department of Transportation to Take Marine Mammals by Harassment Incidental to the Demolition of Pier E3 of the East Span of the Original San Francisco-Oakland Bay Bridge in San Francisco Bay, California

in 4 to 5 implosion events). The potential impacts to marine mammals and the environment is considered the same because of the mitigation measures in place to ensure water quality and avoidance/minimization of impacts to marine mammals.

The marine mammal species for which incidental take is being authorized for the 2017 activities is the same as the previous authorization. No injuries or mortalities are anticipated to occur to marine mammals as a result of CALTRANS' dismantling of SFOBB East Span piers. Animals in the area are expected to incur temporary hearing impairment (i.e., temporary hearing threshold shift [TTS]) or experience behavioral harassment. For marine mammal species that may be affected, the elevated number of estimated takes does not reflect the modeled takes calculated by using the density of the species based on past monitoring from 2000 through 2016 (amounting to 251 days). Using the densities of actual observed animals at the project site, the calculated number of anticipated takes is much lower than the number of takes requested by CALTRANS. CALTRANS requested higher numbers of takes to account for variability in animal occurrences and movements within the Bay. However, we do not consider this difference biologically significant. In addition, based on the 2016 actual take reported, only three harbor seals and one California sea lion were exposed to received levels that would cause Level B harassment, which is 10% of the take authorized that year. Therefore, we expect that actual take in the 2017 season will also be less than what is estimated.

B. MMPA Findings

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant), and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth. NMFS defined "negligible impact" in 50 CFR 216.103 as "...an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

An estimate of the number of Level B harassment takes, alone, is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be "taken" through behavioral harassment, NMFS must consider other factors, such as the likely nature of any responses (their intensity, duration, etc.), the context of any responses (critical reproductive time or location, feeding, migration, etc.), as well as the number and nature of estimated Level A harassment takes, the number of estimated mortalities, effects on habitat, and the status of the species. No injuries or mortalities are anticipated to occur as a result of CALTRANS' dismantling of the original East Span of the SFOBB, and none are authorized.

Any effects on marine mammals are generally expected to be restricted to avoidance of a limited area around CALTRANS' proposed activities and short-term changes in

behavior, falling within the MMPA definition of "Level B harassment." Mitigation measures, such as the installation and deployment of blast attenuation systems and employment of dedicated marine mammal observers monitoring marine mammal exclusion zones will ensure that takes are within the level being analyzed. In all cases, the effects are expected to be short-term, with no lasting biological consequence.

None of the six marine mammal species likely to occur in the proposed SFOBB project area are listed as threatened or endangered under the Endangered Species Act (ESA) or designated as "depleted" under the MMPA. No critical habitat is designated for these species, therefore none will be affected.

In view of the information presented in this document, NMFS determined issuing another IHA to CALTRANS would not result in significant adverse effects, individually or cumulatively, on the human environment. As such, this IHA renewal does not require the preparation of an SEA.