

**FINDING OF NO SIGNIFICANT IMPACT
FOR THE ISSUANCE OF A MARINE MAMMAL INCIDENTAL TAKE AUTHORIZATION TO THE
CALIFORNIA DEPARTMENT OF TRANSPORTATION TO TAKE MARINE MAMMALS
BY HARASSMENT INCIDENTAL TO PIER E3 DEMOLITION BY CONTROLLED IMPLOSION
IN SAN FRANCISCO BAY, CALIFORNIA**

NATIONAL MARINE FISHERIES SERVICE

INTRODUCTION

The National Marine Fisheries Service (NMFS), a division of the National Oceanic Atmospheric Administration (NOAA), is proposing to issue an Incidental Harassment Authorization (IHA) to the California Department of Transportation (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). This IHA will be valid from September 1, 2015 through December 31, 2015 and authorizes takes, by Level B harassment, of marine mammals incidental to the proposed Pier E3 demolition project.

NMFS proposed action is a direct outcome of CALTRANS latest IHA request which includes changes to demolition activities initially proposed for Pier E3. CALTRANS proposed changes to Pier E3 demolition involves a brief impulse sound from a controlled, underwater implosion that has the potential to cause marine mammals in the vicinity of the project area to be behaviorally disturbed, therefore, qualifies for a permit from NMFS. NMFS IHA issuance criteria require that the taking of marine mammals authorized by an IHA will 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

CALTRANS proposed Pier E3 demolition project is part of the San Francisco-Oakland Bay Bridge (SFOBB) East Span bridge replacement. The incidental takes of marine mammals as a result of SFOBB replacement activities have been authorized under annual IHAs since 2005. Because the issuance of IHAs for harassment of marine mammals is considered a major federal action under the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*), NMFS issuances of the previous IHAs were analyzed in accordance with NEPA, the Council on Environmental Quality (CEQ) regulations (40 CFR §§ 1500-1508) and NOAA Administrative Order (NAO) 216-6 "Environmental Review Procedures for Implementing the National Environmental Policy Act" in the following documents:

- San Francisco-Oakland Bay Bridge East Span Seismic Safety Project Final Environmental Impact Statement (FEIS) prepared by the Federal Highway Administration (Federal Highway Administration, 2001)

- Environmental Assessment on the Authorization for the Harassment of Marine Mammals Incidental to Construction of the East Span of the San Francisco-Oakland Bridge under Section 101(a)(5) of the Marine Mammal Protection Act (NMFS, 2003).
- Supplemental Environmental Assessment on the Authorization for the Harassment of Marine Mammals to Construction of the East Span of the San Francisco-Oakland Bridge under Section 101(a)(5) of the Marine Mammal Protection Act (NMFS, 2009)

On March 3, 2015, CALTRANS requested another IHA for the potential harassment of small numbers of marine mammals incidental to dismantling Pier E3 using controlled implosion by underwater detonation. Controlled implosion is being proposed as an alternative to the originally-permitted mechanical demolition methods because it is expected to require fewer in-water work days, have fewer effects on aquatic resources of the San Francisco Bay, and require less time to complete. In addition to this request, on April 16, 2015, CALTRANS submitted a revision to the application submitted on March 3rd to include a test implosion prior to commencing the proposed Pier E3 demolition project. CALTRANS is proposing this test implosion to ensure the demolition method is sufficient.

The project's previous NEPA documents provided the required environmental impact analysis associated with NMFS issuance of IHA to CALTRANS for SFOBB East Span bridge replacement activities and the IHAs only authorized takes, by Level B harassment, of small numbers of marine mammals from new construction and demolition activities involving in-water pile driving (by impact and vibratory hammers), pile removal, and other mechanical demolition methods. However, the controlled implosion with underwater detonation was not previously analyzed because it was not a proposed demolition method by CALTRANS at the time these documents were prepared and previous permits were issued. Therefore, NMFS prepared this Supplemental Environmental Assessment (SEA) titled, "*Issuance of Marine Mammal Incidental Take Authorizations 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*". The Final SEA addresses the potential environmental impacts of NMFS's proposed action and alternatives:

- Alternative 1 - Issue an IHA to CALTRANS under the MMPA for Level B harassment of marine mammals for its proposed Pier E3 demolition project via controlled implosion, taking into account the prescribed means of take, mitigation measures, and monitoring requirements required in the proposed Authorization.
- No Action Alternative – Do not issue an Authorization to CALTRANS, in which case, for the purposes of this Final SEA, NMFS assumes that CALTRANS would forego the proposed Pier E3 demolition project via controlled implosion.

ANALYSIS

NAO 216-6 contains criteria for determining the significance of the impacts of a proposed action. In addition, CEQ regulations at 40 C.F.R. § 1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity." Each criterion listed is relevant to making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria. These include:

- 1) **Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in Fishery Management Plans (FMP)?**

Response: The proposed action (i.e., issuing an IHA to CALTRANS as described in Alternative 1 of the SEA) cannot reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat (EFH). The footprint of the action area is very small in relation to fish habitat. The controlled implosion to demolish Pier E3 would be conducted at the foundation of the original SFOBB. Therefore, no additional natural habitat would be affected.

Fish that are located in the water column, in close proximity to the source of the controlled implosion could be injured, killed, or disturbed by the impulsive sound and could leave the area temporarily. However, most fish species experience a large number of natural mortalities, especially during early life-stages, and any small level of mortality caused by the CALTRANS' one time controlled implosion will likely be insignificant to the population as a whole. Finally, the CALTRANS' controlled implosion would be a two-time event: a test implosion approximately 3 – 4 days before the demolition using much smaller charges, and an implosion to demolish Pier E3. Both events would last approximately 5 seconds. These two brief detonation events are not expected to cause substantial damage to essential fish habitat.

2) Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

Response: The proposed action cannot be expected to have a substantial impact on biodiversity and/or ecosystem functions in the vicinity of the proposed Pier E3 controlled implosion at SFOBB because NMFS does not expect the issuance of an IHA to CALTRANS to significantly (1) affect the susceptibility of any of the animals found in the vicinity of the project area to predation, (2) alter dietary preferences or foraging behavior, (3) change distribution or abundance of predators or prey, or (4) disturb the behaviors of marine mammals.

The impacts of the action on marine mammals are only related to disturbance of marine mammals from brief implosive sounds from the implosion. The shockwave and noise from the implosion would be reduced by a Blast Attenuation System installed around the pier structure. NMFS considers the disturbances from two brief implosions (separated by 3 – 4 day) to be localized. NMFS expects that these acoustic disturbances would not result in substantial impact to marine mammals or to their role in the ecosystem.

3) Can the proposed action reasonably be expected to have a substantial adverse impact on public health or safety?

Response: The proposed action cannot reasonably be expected to have a substantial adverse impact on public health or safety because the authorized activity does not pose a risk to public health or human safety. The proposed controlled implosion would be carried by civil engineers contracted by CALTRANS who are experienced in such activities. In addition, CALTRANS has prepared a Blasting Plan that includes safety measures for the Pier E3 demolition by controlled implosion.

4) Can the proposed action reasonably be expected to adversely affect endangered or threatened species, their critical habitat, marine mammals, or other non-target species?

Response: The proposed action cannot reasonably be expected to adversely affect endangered or threatened species, their critical habitat, marine mammals, or other non-target species because the potential impacts associated with the proposed construction activities to marine mammals and other affected species range from negligible and minor to none. In addition, no Endangered Species Act-

listed marine mammals under NMFS jurisdiction is expected to be present in the vicinity of CALTRANS SFOBB construction site, including the proposed Pier E3 controlled implosion area.

5) Are significant social or economic impacts interrelated with natural or physical environmental effects?

Response: NMFS does not expect the issuance of an IHA to CALTRANS to result in significant social or economic impacts interrelated with natural or physical environmental effects. Effects of the SFOBB Pier E3 controlled implosion would be limited to the localized harassment of the marine mammals authorized by the permits. Authorization of the proposed implosion could result in a low level of economic benefit to construction companies performing the work. However, such impacts would likely be negligible and on a regional or local level.

The activities authorized would not substantially impact use of the environment or use of natural or depletable resources, such as might be expected from large scale construction or resource extraction activities. Further, issuance of an IHA would not result in inequitable distributions of environmental burdens or access to environmental goods.

NMFS has determined that issuance of an IHA would not adversely affect low-income or minority populations. There would be no impact of the activity on the availability of the species or stocks of marine mammals for subsistence uses, as there are no subsistence uses that take place in the areas affected.

6) Are the effects on the quality of the human environment likely to be highly controversial?

Response: The effects of issuing an IHA to CALTRANS as described in Alternative 1 of the SEA on the quality of the human environment are not likely to be highly controversial because: (1) there is no substantial dispute regarding the size, nature, or effect of the proposed action; (2) there is no known scientific controversy over the potential impacts of the proposed action; and (3) all comments received during the public comment period supported the issuance of the IHA.

To allow other agencies and the public the opportunity to review and comment on the actions, NMFS published a notice of receipt of the CALTRANS application and proposed IHA in the *Federal Register* on July 24, 2015 (80 FR 44060). During the public comment period, NMFS received one comment letter from the Marine Mammal Commission (Commission). The Commission concurs with NMFS preliminary finding and recommends that NMFS issue the requested incidental harassment authorization, subject to inclusion of the proposed mitigation, monitoring, and reporting measures.

7) Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, essential fish habitat, or ecologically critical areas?

Response: The proposed action cannot reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, essential fish habitat, or ecologically critical areas because none of these are found in the project areas. Similarly, as described in the response to question 1 above, no substantial impacts to EFH, designated critical habitat (DCH) or ecologically critical areas are expected as the SFOBB project (including Pier E3 controlled implosion) would have a limited footprint. The natural processes in the environment are expected to fully recover from any impacts resulting from the construction activities.

8) Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

Response: The action of issuing an IHA to the CALTRANS for the incidental take, by Level B harassment only, of small numbers of marine mammals is not expected to have significant effects on the human environment that would be unique or involve unknown risks because this type of construction work (including structure removal using confined under water detonation such as implosion) has been performed routinely.

While NMFS' judgments on impact thresholds for marine mammals in the vicinity of the project area are based on limited data, the risks are known and would involve the temporary, minimal harassment of marine mammals. No deaths or injuries to animals have been documented due to past coastal construction activities using confined underwater detonations. The most common response to the impulse noise from confined detonation is for marine mammals to exhibit brief startle response and behavioral modification, or depart the implosion area temporarily.

The controlled implosion to demolish Pier E3 is well planned to minimize any impacts to the biological and physical environment of the areas by implementing mitigation and monitoring protocols which ensure the least practicable adverse impact on the affected species or stocks of marine mammals.

9) Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?

Response: The proposed action is not related to other actions with individually insignificant, but cumulatively significant impacts. While the stocks of marine mammals to which the animals in the vicinity of the SFOBB East Span bridge replacement project site have the potential to be impacted by other human activities in San Francisco Bay (i.e., shipping and boating activities and urban development) described in the cumulative impacts analysis in the FEIS prepared by the Federal Highway Administration (FHWA), these activities are generally separated both geographically or temporally from the proposed actions in the project site and are not occurring simultaneously on the same individuals of the population within the action area at the same time.

The short-term stresses (separately and cumulatively when added to other stresses the marine mammals in the vicinity of SFOBB Pier E3 controlled implosion project site face in the environment) resulting from the brief controlled implosion would be expected to be minimal. Thus, NMFS concluded that the impacts of issuing an IHA to the CALTRANS for the incidental take, by Level B harassment only, of small numbers of marine mammals are expected to be no more than minor and short-term.

10) Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or cause loss or destruction of significant scientific, cultural or historical resources?

Response: The issuance of an IHA is not expected to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or cause loss or destruction of significant scientific, cultural or historical resources either because such resources do not exist within the project area or are not expected to be adversely affected. In particular, the original SFOBB, which was damaged during the 1989 earthquake, is not considered a significant scientific, cultural or historical resource, nor is it listed in the National Register of Historic Places.

11) Can the proposed action reasonably be expected to result in the introduction or spread of a non-indigenous species?

Response: The issuance of an IHA cannot reasonably be expected to lead to the introduction or spread of any non-indigenous species into the environment because the activities associated with the Pier E3 controlled implosion is the demolishing of a pier structure. No transportation of organisms would be involved in CALTRANS' proposed project.

12) Is the proposed action likely to establish a precedent for future actions with significant effects or does it represent a decision in principle about a future consideration?

Response: The issuance of an IHA is not expected to set a precedent for future actions with significant effects nor represent a decision in principle regarding future considerations. The issuance of an IHA to take marine mammals incidental to structure removal or construction by underwater detonation (such as bridge implosion) in the coastal environment is a routine process under the MMPA. To ensure compliance with statutory and regulatory standards, NMFS' actions under section 101(a)(5)(D) of the MMPA must be considered individually and be based on the best available information, which is continuously evolving. Issuance of an IHA to a specific individual or organization for a given activity does not guarantee or imply that NMFS will authorize others to conduct similar activities. Subsequent requests for incidental take authorizations would be evaluated upon their own merits relative to the criteria established in the MMPA, ESA, and NMFS implementing regulations on a case-by-case basis.

The project has no unique aspects that would suggest it would be a precedent for any future actions. For these reasons, the issuance of an IHA to the CALTRANS to conduct controlled implosion to demolish Pier E3 of the original SFOBB is not precedent setting.

13) Can the proposed action reasonably be expected to violate any Federal, State, or local law or requirements imposed for the protection of the environment?

Response: The issuance of an IHA would not violate any federal, state, or local laws for environmental protection. The CALTRANS has fulfilled its responsibilities under MMPA for this action and the IHA currently contains language stating that the applicant is required to obtain any state and local permits necessary to carry out the action which would remain in effect upon issuance of the proposed amendment.

14) Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

Response: The issuance of an IHA is not expected to result in any significant cumulative adverse effects that could have a substantial effect on target or non-target species because the minor and short-term stresses (separately and cumulatively when added to other stresses experienced by the marine mammals in the vicinity of the SFOBB construction site) resulting from the SFOBB Pier E3 controlled implosion would be expected to be minimal.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting Supplemental Environmental Assessment titled, "*Issuance of Marine Mammal Incidental Take Authorizations 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*" prepared by NMFS, it is hereby determined that the issuance of an IHA for the take, by harassment, of small numbers of marine mammals incidental to the CALTRANS' SFOBB Pier E3 demolition by controlled implosion in San Francisco Bay, will not significantly impact the quality of the human environment.

In addition, all beneficial and adverse impacts of the action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an Environmental Impact Statement for this action is not necessary. The SEA, thereby, provides a supporting analysis for this FONSI.

Parry GAYAUOZ

SEP 03 2015

for

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Date