



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
PROGRAM PLANNING AND INTEGRATION  
Silver Spring, Maryland 20910

MAR 27 2012

To All Interested Government Agencies and Public Groups:

Under the National Environmental Policy Act (NEPA), an environmental review has been performed on the following action.

**TITLE:** Environmental Assessment on the Issuance of an Incidental Harassment Authorization to the Port of San Francisco to Take Marine Mammals by Harassment Incidental to Pile Driving During the Pier 36/Brannan Street Wharf Project

**LOCATION:** San Francisco Bay, California

**SUMMARY:** NMFS proposes to issue an Incidental Harassment Authorization (IHA) to the Port of San Francisco to allow the take, by Level B harassment, of four marine mammal species, incidental to pile driving activities. Elevated sound levels may result in short-term harassment of marine mammals, including avoidance and behavioral changes.

**RESPONSIBLE OFFICIAL:** James H. Lecky  
Director, Office of Protected Resources  
National Marine Fisheries Service  
1315 East West Highway  
Silver Spring, MD  
301-427-8400

The environmental review process, including preparation of the Environmental Assessment (EA), led us to conclude that this action will not have a significant effect on the human environment. Therefore, an environmental impact statement will not be prepared. A copy of the finding of no significant impact (FONSI), including the supporting EA, is enclosed for your information.

Although NOAA is not soliciting comments on this completed EA/FONSI we will consider any comments submitted that would assist us in preparing future NEPA documents. Please submit any written comments to the responsible official named above.

Sincerely,

Patricia A. Montanio  
NOAA NEPA Coordinator

Enclosure



## ENVIRONMENTAL ASSESSMENT

### Issuance of an Incidental Harassment Authorization to the Port of San Francisco to Take Marine Mammals by Harassment Incidental to Pile Driving During the Pier 36/Brannan Street Wharf Project

March 2012



**LEAD AGENCY:** USDOC, National Oceanic and Atmospheric Administration  
National Marine Fisheries Service, Office of Protected Resources  
1315 East West Highway  
Silver Spring, MD 20910

**RESPONSIBLE OFFICIAL:** James H. Lecky, Director, Office of Protected Resources

**FOR INFORMATION CONTACT:** Office of Protected Resources  
National Marine Fisheries Service  
1315 East West Highway  
Silver Spring, MD 20910  
(301) 427-8400

**LOCATION:** San Francisco, California

**ABSTRACT:** The National Marine Fisheries Service proposes to issue an Incidental Harassment Authorization to the Port of San Francisco for the taking, by Level B harassment, of small numbers of marine mammals, incidental to pile driving during the Pier 36/Brannan Street Wharf Project in San Francisco, California.

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## LIST OF ACRONYMS, ABBREVIATIONS, AND INITIALISMS

BiOp	Biological Opinion
CFR	Code of Federal Regulations
CEQ	President's Council on Environmental Quality
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ft	feet
IHA	Incidental Harassment Authorization
km	kilometer
m	meter
mi	mile
MMPA	Marine Mammal Protection Act
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
NAO	NOAA Administrative Order
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanographic and Atmospheric Administration
OMB	Office of Management Budget
Port	Port of San Francisco
PSO	Protected Species Observer
USACE	United States Army Corps of Engineers, San Francisco District
U.S.C.	United States Code

# 1. CHAPTER 1 – PURPOSE AND NEED FOR ACTION

## 1.1 DESCRIPTION OF PROPOSED ACTION

NMFS has received an application from the United States Army Corps of Engineers, San Francisco District (USACE), on behalf of the Port of San Francisco (Port), for an Incidental Harassment Authorization (IHA) to take marine mammals, by harassment, incidental to pile driving during construction of the Brannan Street Wharf in San Francisco Bay, California. The Port's construction activities, which have the potential to behaviorally disturb marine mammals, warrant an incidental take authorization from the National Marine Fisheries Service (NMFS) under section 101(a)(5)(D) of the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. 1631 *et seq.*).

The proposed action considered in this Environmental Assessment (EA) is NMFS' issuance of a 1-year IHA under section 101(a)(5)(D) of the MMPA, for the taking, by Level B harassment only, of small numbers of marine mammals incidental to pile driving during construction of the Brannan Street Wharf.

This EA, titled "*Issuance of an Incidental Harassment Authorization to the Port of San Francisco to Take Marine Mammals by Harassment Incidental to Pile Driving During Construction of the Brannan Street Wharf*" (hereinafter, EA), addresses the impacts on the human environment that would result from issuance of this IHA for MMPA Level B takes of marine mammals during pile driving, taking into account the mitigation measures required in the IHA.

### 1.1.1 MMPA PURPOSE AND NEED

The MMPA and Endangered Species Act of 1973 (ESA; 16 U.S.C. 1531 *et seq.*) prohibit "takes" of marine mammals and of threatened and endangered species, respectively, with only a few specific exceptions. The applicable exceptions in this case are an exemption for incidental take of marine mammals in section 101(a)(5)(D) of the MMPA and 7(a)(4) of the ESA.

Section 101(a)(5)(D) of the MMPA directs the Secretary of Commerce to authorize, upon request, the incidental, but not intentional, taking of small numbers of marine mammals, by United States citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and a notice of a proposed authorization is provided to the public for review. Section 101(a)(5)(D) of the MMPA also establishes a 45-day time limit for NMFS' review of an application for an IHA followed by a 30-day public notice and comment period on any proposed authorizations for the incidental harassment of small numbers of marine mammals. Within 45 days of the close of the public comment period, NMFS must either issue or deny the IHA.

**Purpose:** The primary purpose of NMFS issuing an IHA to the Port is to provide an exemption from the take prohibitions contained in the MMPA for the take of marine mammals incidental to the Port's pile driving during construction of the Brannan Street Wharf.

**Need:** As noted above this section, the MMPA establishes a general moratorium or prohibition on the take of marine mammals, including take by behavioral harassment. The

MMPA establishes a process by which individuals engaged in specified activities within a specified geographic area may request an IHA. NMFS must authorize the take of small numbers of marine mammals if, among other things, it complies with the process described above this section, makes certain determinations, and requires, where applicable, the implementation of mitigation and monitoring to minimize potential adverse impacts and resulting take. Specifically, NMFS shall grant the IHA if it finds that the taking will have a negligible impact on the species or stock(s), and will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant). The IHA must, where applicable, set forth 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 mitigation, monitoring, and reporting of such takings.

The USACE and the Port have submitted a complete application demonstrating potential eligibility for issuance of an IHA. NMFS now has a corresponding duty to determine whether and how it can fashion an IHA authorizing take by harassment incidental to the activities described in the application. The need for this action is, therefore, established and framed by the MMPA and NMFS' responsibilities under section 101(a)(5)(D) of that Act, its implementing regulations, and other applicable requirements which will influence its decision making, such as section 7 of the ESA which is discussed in more detail below this section.

The foregoing purpose and need guide NMFS in developing alternatives for consideration, including alternative means of mitigating potential adverse effects.

## **1.2 NEPA REQUIREMENTS AND SCOPE OF NEPA ANALYSIS**

This EA focuses primarily on the environmental effects of authorizing MMPA Level B incidental takes of marine mammals during pile driving in San Francisco Bay. The MMPA and its implementing regulations governing issuance of an IHA require that upon receipt of a valid and complete application for an IHA, NMFS must publish a notice of proposed IHA in the *Federal Register* within 45 days. The notice issued for the Port's action summarized the purpose of the requested IHA, included a statement that NMFS would prepare an EA for the proposed action, and invited interested parties to submit written comments concerning the application and NMFS' preliminary analyses and findings including those relevant to consideration in the EA.

NOAA Administrative Order 216-6 (NAO 216-6) established agency procedures for complying with the National Environmental Policy Act (NEPA) and the implementing regulations issued by the President's Council on Environmental Quality (CEQ). Consistent with the intent of NEPA and the clear direction in NAO 216-6 to involve the public in NEPA decision-making, NMFS requested comments on the potential environmental impacts described in the USACE and Port's application and the proposed IHA. Comments received on the proposed IHA were considered during preparation of this EA.

NMFS has prepared this EA to assist in determining whether the direct, indirect, and cumulative impacts related to its issuance of the authorization for incidental take under the MMPA of four marine mammal species are likely to result in significant impacts to the human environment, or whether the analysis contained herein, including documents referenced and incorporated by reference and public comments received on the proposed IHA, supports the issuance of a Finding of No Significant Impact. Given the limited scope of the decision for which NMFS is responsible (i.e. whether or not to issue the authorization including prescribed means of take,

mitigation measures, and monitoring requirements) and that this EA is intended to inform, the scope of analysis is limited to evaluating and disclosing the impacts to living marine resources and their habitat likely to be affected by issuance of an IHA authorizing the take of marine mammals incidental to the Port's pile driving activities. As described more fully below this section, the EA identifies all marine mammals, and species protected under the ESA, that are likely to occur within the action area.

The analysis focuses on the impacts to certain marine mammal species that could potentially result from issuance of the IHA for the take of marine mammals incidental to the proposed pile driving in San Francisco Bay; impacts that would result from the alternatives presented; and the consideration of potential cumulative environmental impacts. Impacts to other marine species and habitat located in the action area were considered unlikely, and thus received less detailed evaluation.

### **1.2.1 NEPA Scoping Summary**

The purpose of scoping is to identify the issues to be addressed and any potentially significant environmental issues related to the proposed action, as well as identify and eliminate from detailed study the environmental issues that are not significant or that have been covered by review in prior NEPA analyses. An additional purpose of the scoping process is to identify the concerns of the affected public and federal agencies, states, and Indian tribes.

Under 50 CFR 216.104(b) of NMFS' implementing regulations for the MMPA, NMFS must, after deeming the application adequate and complete, publish in the *Federal Register* a notice of proposed IHA or receipt of a request for the implementation or re-implementation of regulations governing the incidental taking. Information gathered during the associated comment period is considered by NMFS in ensuring adequacy of preliminary determinations and proposed mitigation measures for IHAs. In accordance, a notice of proposed IHA was published in the *Federal Register* on October 26, 2011 (76 FR 66274) and was made available for public review and comment for 30 days. Comments received on the proposed IHA were used to develop the scope of this EA.

### **1.2.2 PUBLIC INVOLVEMENT**

On October 26, 2011, NMFS published a notice of a proposed IHA in the *Federal Register* (76 FR 66274) and requested comments from the public for 30 days. NMFS only received comments from the Marine Mammal Commission. NMFS developed responses to the specific comments regarding issuance of an IHA under the MMPA and will provide those responses in the *Federal Register* notice announcing the issuance of the IHA. NMFS does not repeat those responses here. NMFS notes, however, that it fully considered all comments, particularly those related to mitigation and monitoring. NMFS determined, based on the best available data, that the proposed measures are presently the most feasible and effective measures capable of implementation by the Port during pile driving activities.

## **1.3 APPLICABLE LAWS AND NECESSARY FEDERAL PERMITS**

This section summarizes federal, state, and local permits, licenses, approvals, and consultation requirements necessary to implement the proposed action.



### **1.3.1 THE NATIONAL ENVIRONMENTAL POLICY ACT**

NEPA's EIS requirement is applicable to all "major" federal actions with the potential to significantly affect the quality of the human environment. Major federal actions include activities that are fully or partially funded, regulated, conducted, or approved by a federal agency. NMFS' issuance of an IHA for incidental harassment of marine mammals represents approval and regulation of takes of marine mammals incidental to the applicant's activities and is a federal action for which environmental review is required. While NEPA does not dictate a substantive outcome for an IHA, it requires consideration of environmental issues in federal agency planning and decision making, and requires an analysis of alternatives and direct, indirect, and cumulative environmental effects of the NMFS proposed action to authorize MMPA Level B incidental take. As noted, NMFS has prepared this EA to assist in determining whether an EIS is necessary for the action.

### **1.3.2 THE ENDANGERED SPECIES ACT**

Section 7 of the ESA requires consultation with the appropriate federal agency (either NMFS or the U.S. Fish and Wildlife Service) for federal actions that "may affect" a listed species or critical habitat. NMFS' issuance of an IHA affecting ESA-listed species or designated critical habitat, directly or indirectly, is a federal action subject to these section 7 consultation requirements. Accordingly, NMFS is required to ensure that its action is not likely to jeopardize the continued existence of any threatened or endangered species or result in destruction or adverse modification of critical habitat for such species. Regulations specify the requirements for these consultations (50 CFR § 402).

NMFS has determined that issuance of the IHA is not likely to result in adverse effects to listed marine mammals. However, NMFS Southwest Region completed a Biological Opinion (BiOp) analyzing the U.S. Army Corps of Engineers' and the Port's proposed construction project and potential effects on threatened Central California Coast steelhead distinct population segment (*Oncorhynchus mykiss*), the southern distinct population segment of threatened North American green sturgeon (*Acipenser medirostris*), and their designated critical habitats. NMFS concluded that the proposed project is not likely to jeopardize the continued existence of either stock or result in the destruction or adverse modification of critical habitat (NMFS, 2011).

### **1.3.3 THE MARINE MAMMAL PROTECTION ACT**

Section 101(a)(5)(D) of the MMPA directs the Secretary of Commerce to authorize, upon request, the incidental, but not intentional, taking by harassment of small numbers of marine mammals of a species or population stock, for periods of not more than one year, by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specific geographic region if certain findings are made and a *Federal Register* notice of a proposed authorization is provided to the public for review.

Section 101(a)(5)(D) of the MMPA established an expedited process by which U.S. citizens can apply for an authorization to incidentally take small numbers of marine mammals by harassment. Except with respect to certain activities not pertinent here, the MMPA defines "harassment" as:

any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild ["Level A harassment"]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing

disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [“Level B harassment”].

Section 101(a)(5)(D) of the MMPA establishes a 45-day time limit for NMFS’ review of an application followed by a 30-day public notice and comment period on any proposed authorizations for the incidental harassment of small numbers of marine mammals. Not later than 45 days after the close of the public comment period, if the Secretary of Commerce makes the findings set forth in section 101(a)(5)(D)(i) of the MMPA, the Secretary of Commerce shall issue the authorization with appropriate conditions to meet the requirements of section 101(a)(5)(D)(ii) of the MMPA.

NMFS has promulgated regulations to implement the permit provisions of the MMPA (50 CFR Part 216) and has produced Office of Management and Budget (OMB)-approved application instructions (OMB Number 0648-0151) that prescribe the procedures necessary to apply for permits. All applicants must comply with these regulations and application instructions in addition to the provisions of the MMPA. Applications for an IHA must be submitted according to regulations at 50 CFR § 216.104.

#### **1.3.4 MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT**

Under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), Congress defined Essential Fish Habitat (EFH) as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity” (16 U.S.C. 1802(10)). The EFH provisions of the Magnuson-Stevens Act offer resource managers means to accomplish the goal of giving heightened consideration to fish habitat in resource management. NMFS Office of Protected Resources is required to consult with NMFS Office of Habitat Conservation for any action it authorizes (e.g., incidental take), funds, or undertakes, or proposes to authorize, fund, or undertake that may adversely affect EFH. This includes renewals, reviews, or substantial revisions of actions.

NMFS Southwest Regional Office concluded EFH consultation with the U.S. Army Corps of Engineers on May 10, 2011 (Schaeffer, 2011) and determined that the proposed action would adversely affect EFH for various federally managed fish species within the Pacific Groundfish, Pacific Salmon, and Coastal Pelagic Fishery Management Plans. However, the proposed action contains adequate measures to avoid, minimize, mitigate, or otherwise offset the adverse effects to EFH. In addition, the project would result in multiple beneficial effects to EFH. NMFS Southwest Regional Office had no EFH conservation recommendations. There are no independent adverse effects to EFH from issuance of the IHA (Alternative 2).

## **2. CHAPTER 2 – ALTERNATIVES INCLUDING THE PROPOSED ACTION**

The NEPA implementing regulations (40 CFR § 1502.14) and NAO 216-6 provide guidance on the consideration of alternatives to a federal proposed action and require rigorous exploration and objective evaluation of all reasonable alternatives. Each alternative must be feasible and reasonable in accordance with the CEQ implementing regulations (40 CFR §§ 1500-1508). This chapter describes the range of potential actions (alternatives) determined reasonable with respect to achieving the stated purpose and need, as well as alternatives eliminated from detailed study and also summarizes the expected outputs and any related mitigation for each alternative.

This EA evaluates the alternatives to ensure that they would fulfill the purpose and need, namely: (1) the issuance of an IHA for the take of marine mammals by Level B behavioral harassment, incidental to the Port's pile driving activities during construction of the Brannan Street Wharf; and (2) compliance with the MMPA which sets forth specific standards (i.e., no unmitigable adverse impact and negligible impact) that must be met in order for NMFS to issue an IHA.

NMFS' proposed action (preferred) alternative represents the activities proposed by the applicant for the IHA, along with required monitoring and mitigation measures that would minimize potential adverse environmental impacts.

### **2.1 PROJECT OBJECTIVES**

The fundamental objective of the project is to construct a pile-supported park along the San Francisco waterfront to replace the existing Pier 36. The proposed park would provide a new open space for the purpose of public recreation. The project would require installation of 261 steel and concrete piles and 57,000 square feet of new decking.

### **2.2 ALTERNATIVE 1 – NO ACTION ALTERNATIVE**

Under the No Action Alternative, NMFS would not issue an IHA to the Port for the taking, by Level B harassment, of small numbers of marine mammals, incidental to pile driving activities. The MMPA prohibits all takings of marine mammals unless authorized by a permit or exemption under the MMPA. The consequences of not authorizing incidental take are (1) the entity conducting the activity may be in violation of the MMPA if take occurs, (2) mitigation and monitoring measures cannot be required by NMFS, and (3) mitigation measures might not be performed voluntarily by the applicant, and (4) the applicant may choose not to conduct the activity. By undertaking measures to further protect marine mammals from incidental take through the authorization program, the impacts of these activities on the marine environment can potentially be lessened. While NMFS does not authorize the construction project itself, NMFS does authorize the incidental harassment of marine mammals in connection with this activity and prescribes the methods of taking and other means of effecting the least practicable adverse impact on the species and stocks and their habitats. If an IHA was not issued, the Port could decide either to cancel construction or to continue the proposed activity. If the latter decision was made, the Port could independently implement mitigation measures; however, they would be proceeding without authorization from NMFS pursuant to the MMPA. If the Port did not implement mitigation measures during survey activities, increased takes of marine mammals by harassment (and potentially by injury or mortality) could occur if the activities were conducted when marine mammals were present. Although the No Action Alternative would not meet the purpose and need to allow incidental takings of marine mammals under certain conditions, CEQ

regulations require consideration and analysis of a No Action Alternative for the purposes of presenting a comparative analysis to the action alternatives.

## **2.3 ALTERNATIVE 2 – PROPOSED ACTION (PREFERRED)**

The Proposed Action is the Preferred Alternative. Under this alternative, NMFS would issue an IHA to the Port allowing the take, by Level B harassment, of four marine mammal species in San Francisco Bay, incidental to pile driving with the mitigation, monitoring, and reporting conditions contained within the Port's IHA application and NMFS' proposed IHA *Federal Register* notice. Accordingly, the Proposed Action would satisfy the purpose and need of the NMFS MMPA action – issuance of an IHA, along with required mitigation and monitoring measures – and would enable the Port to comply with the statutory and regulatory requirements of the MMPA.

### **2.3.1 PILE DRIVING OPERATIONS**

The NMFS' proposed IHA *Federal Register* notice (76 FR 66274, October 26, 2011) describes the pile driving protocols in detail and this EA briefly summarizes them here. Installation of 261 steel and concrete piles would take place around the existing Pier 36 in San Francisco Bay. The piles would be installed over a period of about five months, between May and December, 2012.

### **2.3.2 MITIGATION AND MONITORING MEASURES**

The NMFS' proposed IHA *Federal Register* notice (76 FR 66274, October 26, 2011) describes the required mitigation and monitoring measures in detail and this EA briefly summarizes them here. To reduce the potential for disturbance from acoustic stimuli associated with the activities, the Port has proposed to implement the following mitigation and monitoring measures for marine mammals: (1) use of a sound attenuation device; (2) establishment of an exclusion zone; (3) pile driving shut down and delay procedures; (4) soft-start procedures; (5) herring monitoring; (6) visual monitoring; and (7) hydroacoustic monitoring.

**Sound Attenuation Device:** When using impact pile driving to install steel piles in water depths greater than two feet, an unconfined bubble curtain would be used to reduce underwater sound levels to avoid the potential for injury. A bubble curtain is expected to reduce sound levels by at least 5 dB.

**Exclusion Zones:** NMFS has determined that for acoustic effects, using acoustic thresholds in combination with corresponding exclusion zones is an effective way to consistently apply measures to avoid or minimize the impacts of an action. During all in-water impact pile driving, the Port would establish a preliminary marine mammal exclusion zone with 50 m (164 ft) radius around each pile to avoid exposure to sounds at or above 180 dB. This would include an 8-m (26-ft) buffer zone to further avoid marine mammals from entering the 180-dB isopleth. The exclusion zone would be monitored during all impact pile driving to ensure that no marine mammals enter the 50-m (164-ft) radius. Once underwater sound measurements are taken, the exclusion zone may be adjusted accordingly so that marine mammals are not exposed to Level A harassment sound pressure levels.

**Shut Down and Delay Procedures:** The Port would shut down or delay pile driving activities if a marine mammal is seen within or approaching the exclusion zone. Activity would not resume until the marine mammal moves out of the exclusion zone or has not been resighted for 15 minutes (pinnipeds) or 30 minutes (cetaceans).

**Soft-start Procedures:** The Port would implement a “soft-start” technique at the beginning of survey activity to allow marine mammals to leave the immediate area before sound sources reach full energy. Soft-start procedures would be conducted prior to driving each pile if hammering ceases for more than 30 minutes.

**Herring Monitoring:** Herring spawning events could result in harbor seals congregating and approaching the action area sporadically in an unpredictable manner. The Port would conduct monitoring for herring spawning events on a daily basis between December 1 and February (although pile driving is expected to be complete in December). If a herring spawning event is observed, in-water work would cease for a period of 2 weeks following the spawning event (a measure designed to reduce impacts to fish).

**Visual Monitoring:** The Port would have at least one protected species observer (PSO) monitoring the Level B harassment zone for marine mammals 30 minutes before, during, and 30 minutes after all impact pile driving activities. In addition, at least two PSOs would conduct behavioral monitoring out to 1,900 m during all vibratory pile driving for the first two weeks of activity to validate take estimates and evaluate behavioral impacts.

**Hydroacoustic Monitoring:** The Port would conduct hydroacoustic monitoring at the initial installation of each pile type to ensure that the harassment isopleths are not extending past the calculated distances described in the notice of proposed IHA (76 FR 66274, October 26, 2011).

## **2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY**

NFMS considered whether other alternatives could meet the purpose and need and support the Port’s proposed activity. An alternative that would allow for the issuance of an IHA with no required mitigation or monitoring was considered but eliminated from consideration, as it would not be in compliance with the MMPA and therefore would not meet the purpose and need. For that reason, this alternative is not analyzed further in this document.

NMFS also considered an alternative whereby NMFS issues the IHA for another time. However, this alternative failed to meet the statutory and regulatory requirements of the MMPA for an IHA as the Port did not submit an application (i.e., NMFS shall issue an IHA upon request) to conduct pile driving at an alternate time. Pile driving activities are expected to begin shortly after issuance of an IHA and are determined by the most suitable dates that would satisfy the purpose and need, from a logistical perspective, for the Port. The potential environmental impacts of pile driving at a different time would be similar to the impacts of the proposed action.

### **3. CHAPTER 3 – AFFECTED ENVIRONMENT**

The summary of the physical and biological environment of the project area, as analyzed in the IHA application and notice of proposed IHA, is hereby incorporated by reference (USACE, 2011; 76 FR 66274, October 26, 2011). In addition to the marine mammal stocks and species that are the subject of the IHA, a number of sea birds, sea turtles, fish, and invertebrates may be found in the action area.

#### **3.1 PHYSICAL ENVIRONMENT**

The project area is located on the western, central banks of San Francisco Bay. San Francisco Bay abuts the Sacramento-San Joaquin Delta, a system that drains 40 percent of California's landmass. Together, the Bay and Delta make up one of the largest estuarine systems on the continent. This intertidal landscape measures up to 19 km wide and up to 97 km long and is made up of numerous habitats, from deep channels to shallow marshes. Although the Bay has undergone extensive industrialization – losing 95 percent of its wetlands since 1850 – the estuary remains an important environment for healthy marine mammal populations year round.

Waters adjacent to Pier 36 experience high traffic for tugboat activities, other large marine shipping, and cruise vessels. The area between the project site and Angel Island is the primary route for shipping traffic into and out of ports, including the Port of San Francisco and the Port of Oakland. Residents and visitors to the Bay area also utilize this water body as a recreational boating resource.

#### **3.2 BIOLOGICAL ENVIRONMENT**

San Francisco Bay is a habitat for numerous coastal and marine species, including birds, fish, and marine mammals, that are protected by a variety of environmental regulations. Caltrans' 2009 EA for the San Francisco-Oakland Bay Bridge Project, incorporated here by reference, identifies and describes a variety of biologically important and protected species inhabiting the action area (Caltrans, 2009). NMFS' action of issuing an IHA would allow for the incidental harassment of marine mammals and, therefore, is the focus of this section. Summary information is also provided on fish because EFH exists in and around the proposed action area.

##### **3.2.1 MARINE MAMMALS**

At least 35 marine mammal species can be found off the coast of California; however, few venture into the Bay. Marine mammals with confirmed occurrences in San Francisco Bay are the Pacific harbor seal, California sea lion, harbor porpoise, gray whale, humpback whale, and sea otter. However, humpback whales are extremely rare in San Francisco Bay and are unlikely to be present in the project vicinity during pile driving. Sea otters are managed by the U.S. Fish and Wildlife Service and NMFS does not authorize take of this species. Therefore, these two species will not be considered further in this analysis and no take authorization is requested or proposed for this action. The Port requested take of Pacific harbor seals (*Phoca vitulina*), California sea lions (*Zalophus californianus*), gray whales (*Eschrichtius robustus*), and Pacific harbor porpoises (*Phocoena phocoena*). Detailed information on these species can be found in the notice of proposed IHA (76 FR 66274, October 26, 2011).

### 3.2.2 FISH

Federally managed fish species within the Pacific Groundfish, Pacific Salmon, and Coastal Pelagic Fishery Management Plans are present in San Francisco Bay. These include various rockfish, flatfish, sharks, northern anchovy, Pacific sardine, the Central California Coast and Central Valley steelhead (*Oncorhynchus mykiss*) distinct population segments, the Sacramento River Winter-run and Central Valley Spring-run chinook salmon (*O. tshawytscha*), and the North American Green Sturgeon (*Acipenser medirostris*) distinct population segment.

## **4. CHAPTER 4 –ENVIRONMENTAL CONSEQUENCES**

NMFS has evaluated the potential impacts of the Port's action in order to determine whether to authorize incidental take of marine mammals under the MMPA. NMFS expects that marine mammals may be present throughout the study area.

NMFS' evaluation indicates that any direct or indirect effects of the action would not result in a substantial impact to living marine resources or their habitats and would not have any adverse impacts on biodiversity or ecosystem function. Effects of the proposed action are considered to be short-term, temporary in nature, and negligible, and unlikely to affect normal ecosystem function or predator/prey relationships; therefore, there would not be a substantial impact on marine life biodiversity or on the normal function of the near shore marine environment. NMFS has determined that appropriate mitigation measures would be in place to minimize impacts to marine mammals and other marine species.

The Port proposes to conduct pile driving during daylight hours for about 5 months. During pile driving, any displacement of fish species in the proposed action would be temporary. Many fish species (i.e., those that do not have swim bladders, have rudimentary swim bladders (such as bottom-dwelling species, including flatfish), or well-developed swim bladders that are not directly connected to the ears) tend to have relatively poor auditory sensitivity and are not likely to be affected by exposure to intense noise. Pile driving may potentially displace prey items of marine mammals, such as fish. However, prey items would return after pile driving ends and the ambient sound has returned to baseline levels.

NMFS expects that pile driving would have no more than a temporary and minimal adverse effect on any fish species and no cumulative effects on the environment. Although there is a potential for injury to fish or marine life in close proximity to the pile hammer, the impacts of pile driving on fish and other marine life specifically related to acoustic activities are expected to be temporary in nature, negligible, and would not result in substantial impact to these species or to their role in the ecosystem.

The impacts of pile driving on marine mammals are specifically related to acoustic activities, and these are expected to be temporary in nature, negligible in intensity, and would not result in substantial impacts to marine mammals or to their role in the ecosystem. Pile driving may cause increased levels of turbidity, but impacts to fish are expected to be minor, localized, and short-term.

NMFS anticipates, and would authorize, the incidental Level B harassment only of small numbers of marine mammals, in the form of temporary behavioral disturbance. NMFS does not anticipate that take by injury (Level A harassment), serious injury, or mortality would occur and expects that harassment takes would be at the lowest level practicable due to the incorporation of the mitigation measures required by the proposed IHA and analyzed in this EA. Level B harassment is not expected to affect biodiversity or ecosystem function.

### **4.1 EFFECTS OF ALTERNATIVE 1 – NO ACTION ALTERNATIVE**

Under the No Action Alternative, NMFS would not issue an IHA to the Port for the proposed pile driving activities. In this case, the Port would decide whether or not it would want to continue with survey activities. If the Port chose not to conduct the activity, then there would be no effects to marine mammals. Conducting the activity without an MMPA authorization (i.e., an



IHA) could result in a violation of federal law. If the Port decided to conduct some or all of the activity without implementing any mitigation measures, and if activities occur when marine mammals are present in the action area, there is the potential for unauthorized harassment of marine mammals. The sounds produced by pile driving would have the potential to cause behavioral harassment of marine mammals in the action area, while some marine mammals may avoid the area altogether. Additionally, masking of natural sounds may occur. Auditory impacts (i.e., temporary and permanent threshold shifts) could also occur if no mitigation or monitoring measures are implemented. Monitoring of exclusion zones for the presence of marine mammals allows for the implementation of mitigation measures, such as shutdowns and delays when marine mammals occur within these zones. These measures are required to prevent the onset of shifts in hearing thresholds. However, although unlikely, if a marine mammal occurs within these high energy ensonified zones, it is possible that hearing impairments to marine mammals could occur. If the Port were to decide to implement mitigation measures similar to those described in the proposed IHA, then the impacts would most likely be similar to those described for Alternative 2 below.

#### **4.2 EFFECTS OF ALTERNATIVE 2 – PREFERRED ALTERNATIVE**

The IHA *Federal Register* notice, incorporated by reference (76 FR 66274, October 26, 2011), describes in detail the potential effects of pile driving on marine mammals. The BiOp, incorporated here by reference, has analyses of effects on protected fish species (NMFS, 2011). In summary, elevated in-water sound levels from pile driving in the proposed project area may temporarily impact marine mammal behavior. NMFS expects these changes to be in the form of temporary, Level B harassment, limited to avoidance or alteration of behavior. Marine mammal prey species, such as fish, may also be temporarily impacted by elevated in-water-sound levels. However, the increase of unshaded water (due to the net removal of pile fill and timber debris) is expected to be beneficial to benthic invertebrates, fish, and marine mammals through restoration of ambient light conditions and increased biological productivity. Overall, the proposed activity is not expected to cause significant or long-term adverse impacts on marine mammal habitat.

The Port proposed a number of monitoring and mitigation measures for marine mammals, which were included in the proposed IHA *Federal Register* notice (76 FR 66274, October 26, 2011). In analyzing the effects of the preferred alternative, NMFS has considered the following monitoring and mitigation measures as part of the preferred alternative:

- (1) use of a sound attenuation device;
- (2) proposed exclusion zone;
- (3) pile driving shut-down and delay procedures;
- (4) soft-start procedures;
- (5) herring monitoring by PSOs;
- (6) visual monitoring by PSOs; and
- (7) hydroacoustic monitoring.

Inclusion of these monitoring and mitigation measures is anticipated to minimize and/or avoid impacts to marine resources. With the above planned monitoring and mitigation measures, any unavoidable impacts to a marine mammal encountered are expected to be limited to short-term, localized changes in behavior (such as brief masking of natural sounds) and short-term changes in animal distribution near the pile hammer. At worst, effects on marine mammals may be interpreted as falling within the MMPA definition of “Level B behavioral harassment.” Under

the proposed action, NMFS expects no long-term or substantial adverse effects on marine mammals, the populations to which they belong, or on their habitats.

NMFS does not anticipate that take by injury (Level A harassment), serious injury, or mortality would occur and expects that harassment takes would be at the lowest level practicable due to the incorporation of the mitigation measures proposed in the application and NMFS' notice of proposed IHA (76 FR 66274, October 26, 2011), nor is take by injury, serious injury, or mortality authorized by the proposed IHA.

#### **4.2.1 COMPLIANCE WITH NECESSARY LAWS – NECESSARY FEDERAL PERMITS**

NMFS has determined that the IHA is consistent with the applicable requirements of the MMPA, ESA, and NMFS' implementing regulations. The applicant has secured or applied for necessary permits from NMFS. The applicant is responsible for complying with all other applicable laws and regulations.

#### **4.2.2 UNAVOIDABLE ADVERSE IMPACTS**

The summary of unavoidable adverse impacts to marine mammals, fish, the populations to which they belong, and on their habitats occurring in the survey area are described in section 4.2 of this document and are also analyzed in the BiOp and NMFS' notice of proposed IHA, are hereby incorporated by reference (NMFS, 2011; 76 FR 66274, October 26, 2011).

NMFS does not expect the Port's activities to have adverse consequences on the viability of marine mammals in the study area. Further, NMFS does not expect that marine mammal populations in the survey area would experience reductions in reproduction, numbers, or distribution that might appreciably reduce their likelihood of surviving and recovering in the wild. Numbers of individuals of all species taken by harassment are expected to be small (relative to species or stock abundance), and the geophysical survey will have a negligible impact on the affected species or stocks of marine mammals. The MMPA requirement of ensuring the proposed action has no unmitigable adverse impact to subsistence uses does not apply here because of the location of the proposed activity.

### **4.3 CUMULATIVE EFFECTS**

Cumulative effects are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR§1508.7). Cumulative impacts may occur when there is a relationship between a proposed action and other actions expected to occur in a similar location or during a similar time period, or when past or future actions may result in impacts that would additively or synergistically affect a resource of concern. These relationships may or may not be obvious. Actions overlapping within close proximity to the proposed action can reasonably be expected to have more potential for cumulative effects on "shared resources" than actions that may be geographically separated. Similarly, actions that coincide temporally will tend to offer a higher potential for cumulative effects.

Actions that might permanently remove a resource would be expected to have a potential to act additively or synergistically if they affected the same population, even if the effects were separated geographically or temporally. Note that the proposed action considered here would not be expected to result in the removal of individual cetaceans or pinnipeds from the population or

to result in harassment levels that might cause animals to permanently abandon preferred feeding areas or other habitat locations, so concerns related to removal of viable members of the populations are not implicated by the proposed action. This cumulative effects analysis considers these potential impacts, but more appropriately focuses on those activities that may temporally or geographically overlap with the proposed activity such that repeat harassment effects warrant consideration for potential cumulative impacts to the affected four marine mammal species and their habitats.

San Francisco Bay provides recreational, commercial, and industrial resources for the residents of California and is therefore heavily subjected to anthropogenic disturbance. This includes recreational and commercial vessel traffic, vehicular traffic over bridges, and coastal construction and development. As described in Richardson et al. (1995), marine mammals are likely habituated and tolerant to a certain degree of anthropogenic disturbance, including noise. The Port's proposed action is not likely to add an increment of disturbance that would cumulatively, when combined with other actions, result in significant adverse impacts to marine mammals.

Issuance of an IHA to the Port is not related to other actions with individually insignificant, but cumulatively significant impacts. Currently, Caltrans holds an IHA for construction of the San Francisco-Oakland Bay Bridge, authorizing the harassment of the same populations of Pacific harbor seals, California sea lions, harbor porpoises, and gray whales from pile driving in San Francisco Bay. Caltrans' IHA expires in February and they have submitted another IHA application for future work. It is unlikely that pile driving activities at Pier 36 would overlap with construction activities at the Bridge. Any temporary harassment from exposure to either project is not anticipated to result in significant cumulative impacts. There are currently no reasonably foreseeable projects planned for this portion of the San Francisco Bay under NMFS authority that are not currently ongoing (i.e., Caltrans' activities). Any future authorizations would have to undergo the same permitting process and would take the Pier 36/Brannan Street Wharf project into consideration when addressing cumulative effects.

NMFS' proposed action of issuing an IHA for the incidental take of marine mammals by Level B harassment in San Francisco Bay is only expected to result in minimal impacts to marine species in the area. This limited action and any temporary, behavioral effects that may result from the Port's proposed action, are not expected to contribute substantially to other cumulative impacts from activities in San Francisco Bay.

#### **4.4 CONCLUSION**

The inclusion of the mitigation and monitoring requirements in the IHA, as described in the Preferred Alternative, would ensure that the Port's activity and the proposed mitigation measures under Alternative 2 (Preferred Alternative) are sufficient to minimize any potential adverse impacts to the human environment, particularly marine mammal species or stocks and their habitat. With the inclusion of the required mitigation and monitoring requirements, NMFS has determined that the proposed pile driving activities, and NMFS' proposed issuance of an IHA to the Port, would result at worst in a temporary modification of behavior (Level B harassment) of some individuals of four species of marine mammals. In addition, no take by injury, serious injury, and/or mortality is anticipated, and the potential for temporary or permanent hearing impairment would be avoided through the incorporation of the mitigation and monitoring measures described earlier in this document.

## **5. LIST OF PREPARERS AND AGENCIES CONSULTED**

### **Agencies Consulted**

No other persons or agencies were consulted in preparation of this EA.

### **Prepared By**

Michelle Magliocca

Fishery Biologist

Permits and Conservation Division

Office of Protected Resources, NOAA/National Marine Fisheries Service

## **6. REFERENCES**

- Caltrans. (2009). Initial Study with Mitigated Negative Declaration and Environmental Assessment with Findings of No Significant Impact. District 4. 79 pp.
- NMFS. (2011). National Marine Fisheries Service Endangered Species Act Section 7 Consultation Biological Opinion – Pier 36 Demolition/Brannan Street Wharf Project in San Francisco, California. Long Beach, CA: NMFS Southwest Region.
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- Schaeffer, Korie. (2011). “EFH Consultation for Pier 36/Brannan Street Wharf.” Email to Tessa Bernhardt. 10 May, 2011.
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UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Silver Spring, MD 20910

**FINDING OF NO SIGNIFICANT IMPACT  
FOR THE ISSUANCE OF AN INCIDENTAL HARASSMENT AUTHORIZATION  
TO THE PORT OF SAN FRANCISCO TO TAKE MARINE MAMMALS BY HARASSMENT  
INCIDENTAL TO PILE DRIVING DURING THE PIER 36/BRANNAN STREET WHARF PROJECT**

**NATIONAL MARINE FISHERIES SERVICE**

**BACKGROUND**

The National Marine Fisheries Service (NMFS) received an application from the United States Army Corps of Engineers, San Francisco District (USACE), on behalf of the Port of San Francisco (Port), for an Incidental Harassment Authorization (IHA) to take marine mammals, by Level B harassment, incidental to pile driving during construction of the Brannan Street Wharf in San Francisco Bay, California. Pursuant to the Marine Mammal Protection Act (MMPA; 16 U.S.C. 1631 *et seq.*), authorization for incidental taking shall be granted provided that NMFS: (1) determines that the action would have a negligible impact on the affected species or stocks of marine mammals; (2) finds the action would not have an unmitigable adverse impact on the availability of those species or stocks of marine mammals for taking for subsistence uses; and (3) sets forth the permissible methods of taking, other means of effecting the least practicable impact on affected species and stocks and their habitat, and requirements pertaining to the mitigation, monitoring, and reporting of such takes.

In accordance with the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*), NMFS completed an Environmental Assessment (EA) titled "*Issuance of an Incidental Harassment Authorization to the Port of San Francisco to Take Marine Mammals by Harassment Incidental to Pile Driving During the Pier 36/Brannan Street Wharf Project.*"

NMFS has prepared this Finding of No Significant Impact (FONSI) to evaluate the significance of the impacts of NMFS' action. It is specific to Alternative 2 in the EA, identified as the Preferred Alternative. Under this alternative, NMFS would issue an IHA with required mitigation, monitoring, and reporting measures. Based on NMFS' review of the Port's proposed activities and the measures contained in Alternative 2, NMFS has determined that no significant impacts to the human environment would occur from implementing the Preferred Alternative.

**ANALYSIS**

NAO 216-6 contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality (CEQ) regulations at 40 CFR § 1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity." Each criterion listed below this section is relevant to making a FONSI 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: NMFS does not anticipate that either the Port's proposed action (i.e., pile driving activities) or NMFS' proposed action (i.e., issuing an IHA to the Port) would cause substantial damage to ocean and coastal habitats. The proposed NMFS action would authorize Level B harassment of marine mammals, incidental to pile driving activities occurring over a period of eight months in San Francisco Bay, California.

NMFS believes that the proposed action conducted under the requirements of the IHA would have no more than minimal adverse impacts to fish and their habitats, and would have no potential for population-level impacts to fish. The Magnuson-Stevens Fishery Conservation and Management Act (MSFCA) govern marine fisheries management in waters within the U.S. Exclusive Economic Zone, and require federal agencies to consult with NMFS with respect to actions that may adversely impact Essential Fish Habitat (EFH). NMFS Southwest Regional Office concluded EFH consultation with the U.S. Army Corps of Engineers on May 10, 2011 and determined that the proposed action would adversely affect EFH for various federally managed fish species within the Pacific Groundfish, Pacific Salmon, and Coastal Pelagic Fishery Management Plans. However, the proposed action contains adequate measures to avoid, minimize, mitigate, or otherwise offset the adverse effects to EFH. In addition, the project would result in multiple beneficial effects to EFH. NMFS Southwest Regional Office had no EFH conservation recommendations. There are no independent adverse effects to EFH from issuance of the IHA.

**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: NMFS does not expect either the Port's proposed action or NMFS' proposed action (i.e., issuing an IHA to the Port that authorizes Level B harassment) to have a substantial impact on biodiversity or ecosystem function within the affected environment. The proposed action area is used by marine mammals for opportunistic foraging but is not considered a primary foraging ground. A major foraging opportunity may be afforded to pinnipeds via local herring runs. In compliance with the California Department of Fish and Game, the herring spawning season (December 1 through February 28) is closed to all in-water activities. The Port expects to be done before the herring spawning season, but would conduct daily monitoring specifically for herring if pile driving activities occur during herring spawning season. If a herring spawning event is observed, in-water work would cease for a period of two weeks following the spawning event.

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

Response: NMFS does not expect either the Port's proposed action or NMFS' proposed action (i.e., issuing an IHA to the Port) to have a substantial adverse impact on public health or safety. The proposed pile driving activities would occur during daylight hours and constant monitoring for marine mammals and other marine life during operations effectively eliminates the possibility of any humans being inadvertently exposed to levels of sound that might have adverse effects. Although the conduct of pile driving activities may carry some risk to the personnel involved (e.g.,

mechanical accidents), the applicant and those individuals working with the applicant would be required to be adequately trained or supervised in performance of the underlying activity to minimize such risk to personnel.

**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 EA evaluates the affected environment and potential effects of NMFS' (i.e., issuing an IHA to the Port) and the Port's (i.e. pile driving activities) actions, indicating that only the acoustic activities have the potential to affect marine mammals in a way that requires authorization under the MMPA. These temporary acoustic activities would not affect physical habitat features, such as substrates and water quality.

NMFS has determined that the proposed activity may result in some Level B harassment (in the form of short-term and localized changes in behavior) of small numbers, relative to the population sizes, of four species of marine mammals, none of which are listed under the Endangered Species Act (ESA; 16 U.S.C. 1531 *et seq.*).

The following mitigation measures are planned for the proposed action to minimize adverse effects to protected species:

- (1) sound attenuation device;
- (2) exclusion zones;
- (3) shut down and delay procedures;
- (4) soft-start procedures;
- (5) herring monitoring;
- (6) visual monitoring; and
- (7) hydroacoustic monitoring.

Taking these measures into consideration, responses of marine mammals from the preferred alternative are expected to be limited to temporary avoidance of the area around the sound source and short-term behavioral changes, falling within the MMPA definition of "Level B harassment."

NMFS does not anticipate that marine mammal take by injury (Level A harassment), serious injury, or mortality would occur and expects that harassment takes would be at the lowest level practicable due to the incorporation of the mitigation measures required by the IHA. Numbers of individuals of all marine mammal species taken by harassment are expected to be small (relative to species or stock abundance), and the take is anticipated to have a negligible impact on any species or stock. The impacts of the proposed action on marine mammals are specifically related to acoustic activities, and these are expected to be temporary in nature, negligible, and would not result in substantial impact to marine mammals or to their role in the ecosystem.

Pursuant to section 7 of the ESA, the USACE engaged in formal section 7 consultation with NMFS Southwest Region, regarding potential effects to ESA-listed fish species. A Biological Opinion (BiOp) was issued on September 16, 2011. The BiOp provides supporting analysis for this FONSI and concluded that the Port's Pier 36/Brannan Street Wharf project is not likely to jeopardize the continued existence of any listed species. Furthermore, the BiOp concluded that the



project is not likely to adversely modify or destroy designated critical habitat for steelhead or green sturgeon. Effects to EFH were addressed in the response to question 1.

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

Response: The primary impacts to the natural and physical environment are expected to be acoustic and temporary in nature (and not significant), and not interrelated with significant social or economic impacts. Issuance of the IHA would not result in inequitable distributions of environmental burdens or access to environmental goods.

NMFS has determined that issuance of the IHA would not adversely affect low-income or minority populations. Further, there would be no impact of the activity on the availability of the species or stocks of marine mammals for subsistence uses. Therefore, no significant social or economic effects are expected to result from issuance of the IHA or the proposed action.

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

Response: The effects of this action on the quality of the human environment, that is, NMFS' issuance of an IHA for the take of marine mammals incidental to pile driving activities, are not highly controversial. Specifically, NMFS did not receive any comments raising substantial questions or concerns about the size, nature, or effect of potential impacts from NMFS's proposed action or the Port's proposed project.

**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: Issuance of the IHA is not 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 as it would only authorize harassment to marine mammals. The action area does not contain, and is not adjacent to, areas of notable visual, scenic, historic, or aesthetic resources that would be substantially impacted. The surrounding water is primarily used for shipping traffic and is already impacted by human development.

While there may be adverse impacts to EFH and habitat for federally listed species, those impacts are likely to be minor, localized and short-term (see responses to question 1).

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

Response: The potential risks of pile driving are not unique or unknown, nor is there significant uncertainty about impacts. NMFS has issued numerous IHAs for pile driving activities in San Francisco Bay and conducted NEPA analysis on those projects. Each of these projects required marine mammal monitoring and monitoring reports have been reviewed by NMFS to

ensure that activities have a negligible impact on marine mammals. In no case have impacts to marine mammals, as determined from monitoring reports, exceeded NMFS' analysis under the MMPA and NEPA. Therefore, the effects on the human environment are not likely to be highly uncertain or involve unique or unknown risks.

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

Response: Issuance of an IHA to the Port is not related to other actions with individually insignificant, but cumulatively significant impacts. Currently, Caltrans holds an IHA for construction of the San Francisco-Oakland Bay Bridge, authorizing the harassment of the same populations of Pacific harbor seals, California sea lions, harbor porpoises, and gray whales from pile driving in San Francisco Bay. Caltrans' IHA expires in February and they have submitted another IHA application for future work. It is unlikely that pile driving activities at Pier 36 would overlap with construction activities at the Bridge. Any temporary harassment from exposure to either project is not anticipated to result in significant cumulative impacts. There are currently no reasonably foreseeable projects planned for this portion of the San Francisco Bay under NMFS authority that are not currently ongoing (i.e., Caltrans' activities). Any future authorizations would have to undergo the same permitting process and would take the Pier 36/Brannan Street Wharf project into consideration when addressing cumulative effects.

**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 may cause loss or destruction of significant scientific, cultural or historical resources?**

Response: The proposed action would not take place in any areas listed in or eligible for listing in the National Register of Historic Places and would not cause loss or destruction of significant scientific, cultural, or historical resources, as none exist within the action area.

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

Response: The proposed action cannot be reasonably expected to result in the introduction or spread of a non-indigenous species. The spread of non-indigenous species generally occurs through ballast water or hull attachment. Support vessels used during construction would likely be small, local vessels that do not make trans-ocean trips. As such, no non-indigenous species are likely to enter the San Francisco Bay through support vessels used during the specified activity.

**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 proposed action would not set a precedent for future actions with significant effects or represent a decision in principle. Each MMPA authorization applied for under 101(a)(5) must contain information identified in NMFS' implementing regulations with no exceptions. NMFS considers each activity specified in an application separately and, if it issues an IHA to the applicant, NMFS must determine that the impacts from the specified activity would result in a negligible impact to the affected species or stocks.

NMFS has issued many authorizations for similar pile driving activities. A finding of no significant impact for this action, and for NMFS's issuance of an IHA, may inform the environmental review for future projects but would not establish a precedent or represent a decision in principle about a future consideration.

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

Response: Issuance of the proposed IHA would not result in any violation of Federal, State, or local laws for environmental protection. The applicant consulted with the appropriate Federal, State, and local agencies during the application process and would be required to follow associated laws as a condition of the IHA.

**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 proposed action allows for the taking, by incidental harassment, of marine mammals during the proposed pile driving activities. NMFS has determined that marine mammals may exhibit behavioral changes such as avoidance of or changes in foraging patterns within the action area. However, NMFS does not expect the authorized harassment to result in significant cumulative adverse effects on the affected species or stocks. As discussed in response to question 9, the California Department of Transportation currently holds an IHA to harass marine mammals within San Francisco Bay incidental to pile driving. However, because each project's impacts would be short term and localized and each Holder is required to comply with mitigation and monitoring measures designed to minimize exposure and impacts, no substantial adverse cumulative impacts are anticipated. Pile driving activities and the issuance of an IHA are not expected to result in any significant cumulative adverse effects on target or non-target species incidentally taken by harassment due to pile driving activities.

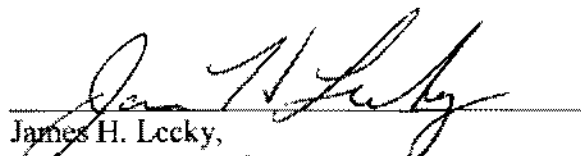
Cumulative effects refer to the impacts on the environment that result from a combination of past, existing, and reasonably foreseeable human activities and natural processes. As evaluated in the EA, human activities in the region of the proposed action include vessel traffic, vehicular traffic over bridges, and coastal construction and development. Those activities, as described in the EA, when conducted separately or in combination with other activities, could adversely affect marine species in the proposed action area. Because of the relatively small area of ensonification and mitigation measures, the action would not result in synergistic or cumulative adverse effects that could have a substantial effect on any species.

The proposed action does not target any marine species and is not expected to result in any individual, long-term, or cumulative adverse effects on the species incidentally taken by harassment due to these activities. The potential temporary behavioral disturbance of marine species might result in short-term behavioral effects for these marine species within the ensonified zones, but no long-term displacement of marine mammals, endangered species, or their prey is expected as a result of the proposed action conducted under the requirements of the IHA. Therefore, NMFS does not expect any cumulative adverse effects on any species as a result of pile driving activities.

**DETERMINATION**

In view of the information presented in this document and the analysis contained in the supporting EA titled "*Issuance of an Incidental Harassment Authorization to the Port of San Francisco to Take Marine Mammals by Harassment Incidental to Pile Driving During the Pier 36/Brannan Street Wharf Project*," and documents that it references, NMFS has determined that issuance of an IHA to the Port for the take, by Level B harassment only, of small numbers of marine mammals incidental to conducting pile driving activities in San Francisco Bay in accordance with Alternative 2 in NMFS' 2012 EA would not significantly impact the quality of the human environment, as described in this FONSI and in the EA.

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 EA thereby provides a supporting analysis for this FONSI.

  
James H. Lecky,  
Director, Office of Protected Resources,  
National Marine Fisheries Service

**MAR 21 2012**

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Date