installed. The questions outlined in the survey examine the public's use of the signs, understanding of the signs' content, understanding and awareness of protected areas/zones and how those messages are portrayed in regulatory signs, demographics of the target audience, interest in alternate sources of interpretive content, perception of the National Marine Sanctuaries identity, and awareness of the national marine sanctuary system.

II. Method of Collection

Half of the respondents will use paper forms completed onsite. Half of the respondents will be asked to complete the survey online.

III. Data

OMB Control Number: None.

Form Number: None.

Type of Review: Regular submission (new collection).

Affected Public: Individuals or households.

Estimated Number of Respondents: 400.

Estimated Time per Response: 8 minutes.

Estimated Total Annual Burden Hours: 53 hours.

Estimated Total Annual Cost to Public: \$0 in recordkeeping/reporting costs.

IV. Request for Comments

Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden (including hours and cost) of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

Dated: July 29, 2011.

Gwellnar Banks,

Management Analyst, Office of the Chief Information Officer.

[FR Doc. 2011–19720 Filed 8–3–11; 8:45 am]

BILLING CODE 3510-22-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648-XA614

Fisheries of the Exclusive Economic Zone Off Alaska; Bering Sea and Aleutian Islands Crab Rationalization Program; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of peer review meeting.

SUMMARY: NMFS has requested the Center for Independent Experts (CIE) to conduct a peer review of the agency's economic data collection program for the Bering Sea/Aleutian Islands crab fisheries managed under the BSAI Crab Rationalization program. The CIE, operated by Northern Taiga Ventures, Inc., provides independent peer reviews of NMFS's fisheries stock assessments and other science products. The BSAI Crab Economic Data Report (EDR) program administered by NMFS began collecting cost, earnings and employment data in 2005, concurrently with the transition of BSAI crab fisheries to the rationalized management regime. The program was developed under the direction of the North Pacific Fishery Management Council (Council). The CIE review will examine the scientific methods and practices employed by NMFS in the design and administration of the EDR program and dissemination of results, assess whether the data and information produced represent the best available science, and provide recommendations for methodological improvements to achieve best scientific practices in economic data collection and analysis of BSAI crab fisheries. The public is invited to attend and observe the presentations and discussions between the CIE panel and the NMFS scientists and contractors who have administered the data collection.

DATES: The public portion of the meeting will be held August 23–24, 2011, 9 a.m. to 4:30 p.m. Pacific standard time.

ADDRESSES: The meeting will be held in the Observer Training Room, Building 4 of the National Marine Fisheries Service, Alaska Fisheries Science Center, 7600 Sand Point Way, NE., Seattle, WA 98115.

FOR FURTHER INFORMATION CONTACT:

Brian Garber-Yonts, 206–526–7143 or brian.garber-yonts@noaa.gov.

SUPPLEMENTARY INFORMATION: For further information about this meeting and the CIE Review of the BSAI crab EDR program, please visit the Alaska Fisheries Science Center Web site at http://www.afsc.noaa.gov/. For further information on the Crab Rationalization Program, please visit the NMFS Alaska Region Web site at http://www.alaskafisheries.noaa.gov.

Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for special accommodations should be directed to Brian Garber-Yonts (see FOR FURTHER INFORMATION CONTACT) at least 5 working days before the workshop date.

Dated: August 1, 2011.

Margo Schulze-Haugen,

Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2011-19811 Filed 8-3-11; 8:45 am]

BILLING CODE 3510-22-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648-XW30

Takes of Marine Mammals Incidental to Specified Activities; Pile-Driving and Renovation Operations on the Trinidad Pier by the Cher-Ae Heights Indian Community of the Trinidad Rancheria in Trinidad, CA

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; Issuance of an Incidental Take Authorization (ITA).

SUMMARY: In accordance with the Marine Mammal Protection Act (MMPA) regulation, notification is hereby given that NMFS has issued an Incidental Harassment Authorization (IHA) to the Cher-Ae Heights Indian Community of the Trinidad Rancheria (Trinidad Rancheria) to take small numbers of marine mammals, by Level B harassment, incidental to pile-driving and renovation operations for the Trinidad Pier Reconstruction Project in Trinidad, California.

DATES: Effective August 1, 2011 through January 31, 2012.

ADDRESSES: A copy of the IHA is available by writing to P. Michael Payne, Chief, Permits, Conservation, and Education Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910 or by telephoning the contacts listed here.

A copy of the application containing a list of the references used in this document may be obtained by writing to the address specified above, telephoning the contact listed below (see FOR FURTHER INFORMATION CONTACT). or visiting the Internet at: http:// www.nmfs.noaa.gov/pr/permits/ incidental.htm#applications. The following associated documents are also available at the same internet address: "Biological Assessment, Trinidad Pier Replacement, Cher-Ae Heights Indian Community of the Trinidad Rancheria, May 2009" and "Environmental Assessment for Issuance of an Incidental Harassment Authorization for Cher-Ae Heights Indian Community of the Trinidad Rancheria's Trinidad Reconstruction Project in Trinidad, California." Documents cited in this notice, may be viewed by appointment, during regular business hours, at the aforementioned address.

FOR FURTHER INFORMATION CONTACT: Howard Goldstein or Jolie Harrison, Office of Protected Resources, NMFS, 301–427–8401.

SUPPLEMENTARY INFORMATION:

Background

Section 101(a)(5)(D) of the MMPA (16 U.S.C. 1361(a)(5)(D)) directs the Secretary of Commerce (Secretary) to allow, upon request, the incidental, but not intentional, taking of marine mammals for a period of not more than one year by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review.

Authorization for the incidental taking of small numbers of marine mammals shall be granted if NMFS 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 authorization must set forth the permissible methods of taking, other means of effecting the least practicable impact on the species or stock and its habitat, and requirements pertaining to the mitigation, monitoring and reporting of such takings. NMFS has defined "negligible impact" in 50 CFR 216.103 * an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

Section 101(a)(5)(D) of the MMPA establishes a 45-day time limit for NMFS's 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. Within 45 days of the close of the public comment period, NMFS must either issue or deny the authorization.

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].

16 U.S.C. 1362(18).

Summary of Request

On November 3, 2009, NMFS received a letter from the Trinidad Rancheria, requesting an IHA. After addressing comments from NMFS, a revised IHA application was submitted on July 23, 2010. On May 18, 2011, NMFS published a notice in the **Federal Register** (76 FR 28733) disclosing the effects on marine mammals, making preliminary determinations and including a proposed IHA. The notice initiated a 30 day public comment period.

The requested IHA would authorize the take, by Level B (behavioral) harassment only, of small numbers of Pacific harbor seals (Phoca vitulina richardsi), California sea lions (Zalophus californianus), and Eastern Pacific gray whales (Eschrichtius robustus) incidental to pile-driving and renovation operations on the Trinidad Pier. The Trinidad Pier has served the Trinidad Community for decades and continues to be one of the marine economic generators for the area. This project will not only address the structural deficiencies of the aged pier, but will completely remove the presence of creosote and other wood preservatives from Trinidad Bay and eliminate non-point source run-off with the construction of the new pier. The pile-driving and renovation operations will take place during August, 2011 to January, 2012, in Trinidad, California. Additional information on the Trinidad Pier Reconstruction Project is contained in the application and Biological Assessment (BA), which is available upon request (see ADDRESSES).

Description of the Specified Activities

The Trinidad Pier, located on Trinidad Bay, is an antiquated structure that requires reconstruction in order to maintain public safety and to redress certain environmental deficiencies in the existing structure. The 165 m (540 ft) long pier is located on tidelands granted by the State of California to the City of Trinidad and leased by the Trinidad Rancheria. The project area consists of the pier (0.31 acres) and a nearby staging area (0.53 acres). The existing pier was constructed in 1946 to serve commercial fishing and recreational uses. Since that time, the creosote-treated wood piles which support the pier, as well as the wood decking, have deteriorated and are proposed to be replaced by cast-in-steelshell (CISS) concrete piles and pre-cast concrete decking, respectively. This will improve the safety of the pier. Existing utilities that will require replacement include electrical water, sewer, and phone. Additional dock amenities that will be replaced including lighting, railing, four hoists, three sheds, a saltwater intake pipe used by Humboldt State University's (HSU) Telonicher Marine Laboratory, and a water quality sonde utilized by the Center for Integrative Coastal Observation, Research, and Education. The construction schedule is from August 1, 2011, to May 1, 2012, however the piledriving and removal activities potentially resulting in incidental take of marine mammals will occur from August 1, 2011, through January 31, 2012.

Background

The Trinidad Pier is the northernmost oceanfront pier in California and has been used for commercial and recreational purposes over the last 50 vears. Trinidad harbor and pier serve a fleet of commercial winter crab fishermen and year-round water angling for salmon, and nearshore/finfish species. Trinidad Pier was first built by Bob Hallmark in 1946. Since that time only minor maintenance activities have occurred on the pier. Today, Trinidad's economy is based on fishing and tourism and the pier supports these activities. The pier also provides educational opportunities by accommodating HSU's Telonicher Marine Lab's saltwater intake pipe, and the California Center of Integrated Technology's (CICORE) water quality sonde.

Currently, the Trinidad Rancheria plays an important role in the economic development of the Trinidad area through three main business enterprises, one of which is the Seascape Restaurant and the pier. The Cher-Ae Heights Indian Community of the Trinidad Rancheria is a federally-recognized tribe composed of descendants of the Yurok, Weott, and Tolowa peoples. In 1906, the Trinidad Rancheria was established by a U.S. congressional enactment, and a congressional action authorized the purchase of small tracts of land for landless homeless California Indians. In 1908, through this Federal authority, 60 acres of land was purchased on Trinidad Bay to establish the Trinidad Rancheria. In 1917, the Secretary of the Interior formally approved the Trinidad Rancheria as a Federally Recognized Tribe.

The community began developing in the 1950's. In January, 2000, the Trinidad Rancheria purchased the Trinidad Pier, harbor facilities, and the Seascape Restaurant. The Trinidad Rancheria leases a total area of 14 acres in Trinidad Bay from the City of Trinidad. The Trinidad Rancheria currently operates the pier, and upland improvements including a boat launch ramp and the Seascape Restaurant. Funds for permitting and designs of the pier were granted to the Trinidad Rancheria by the California State Coastal Conservancy.

The purpose of the Trinidad Pier Reconstruction Project is to correct the structural deficiencies of the pier and improve pier utilities and safety for the benefit of the public, and indirectly improve the water quality conditions and provide additional habitat for the biological community in the area of special biological significance (ASBS). Currently, it is difficult to ensure the continued safety of the pier due to excessive deterioration of the creosote-treated Douglas fir piles and the pressure treated decking.

Pier Construction Overview

Summary plans for the pier and staging area are presented in Appendix A of the IHA application. Pier improvements will replace at a one-toone ratio, approximately 1,254 m² (13,500 ft²) of the pre-cast concrete decking. In addition, the project includes installation of 115 concrete piles (and removal of 205 piles) including batter and moorage piles (45.7) cm or 18 inches [in] in diameter), four hoists, standard lights, guardrail, and dock utility pipes including water, power, and telephone. A new stormwater collection system will also be incorporated into the reconstructed pier design. The new CISS concrete piles will be separated at 1.5 m (5 ft) intervals along 7.6 m (25 ft) long concrete bents. A total of 22 bents

separated 7.6 m (25 ft) apart shall be used. The decking of the new pier will be constructed of pre-cast 6.1 m (20 ft) long concrete sections. The new pier will be 164.6 m (540 ft) long and 7.3 to 7.9 m (24 to 26 ft) wide, corresponding to the existing footprint.

A pile bent will be installed at the existing elevation of the lower deck to provide access to the existing floating dock. The existing stairs to the lower deck will be replaced with a ramp that is ADA compliant. The decking of the pier will be constructed at an elevation of 6.4 m (21 ft) above Mean Lower Low Water (MLLW). The top of the decking will be concrete poured to create a slope for drainage and to incorporate a pattern and a color into the concrete surface in order to provide an aesthetically pleasing appearance. An open guardrail, 1.1 m (3.5 ft) in height shall be constructed of tubular galvanized steel rail bars (approximately 1.9 cm [3/4 in] diameter) uniform in shape throughout the length of the pier. Lighting will be installed in the decking (and railing in the landing area) along the length of the pier and will be focused and directed to minimize lighting of any surfaces other than the pier deck.

Currently there are four hoists on the pier. Three of the hoists are used to load and unload crab pots from the pier and the fourth hoist located at the end of the pier is suited to load and unload skiffs. The hoists are approximately 30 years old and may have had the Yale motors replaced since the time they were installed. The hoists shall be re-installed at points corresponding to their current location and their current duties. All design specifications shall conform to the Uniform Building Code.

Pier Demolition Methods

Removal of the existing pier and construction of the new pier shall occur simultaneously. Construction shall begin from the north (shore) end of the pier. All pier utilities and structures shall first be removed. Utilities to be removed include water, electrical, power and phone lines, temporary bathroom, ladders, and pier railing. Structures to be removed include four hoists, two wood sheds, HSU's 20 horsepower (hp) (14.9 kiloWatt [kW]) pump and saltwater intake pipes, CICORE's water quality sonde, and a concrete bench. Then the existing pressure treated decking, joists, and bent beams shall be removed and transported by truck to the upland staging area for temporary storage.

All existing piles located in the section of pier being worked on (active construction area) will then be removed by vibratory extraction, unless some are

broken in the process. Vibratory extraction is a common method for removing both steel and timber piling. The vibratory hammer is a large mechanical device mostly constructed of steel that is suspended from a crane by a cable. The vibratory hammer is deployed from the derrick and positioned on the top of the pile. The pile will be unseated from the sediment by engaging the hammer and slowly lifting up on the hammer with the aid of the crane. Once unseated, the crane will continue to raise the hammer and pull the pile from the sediment. When the bottom of the pile reaches the mudline, the vibratory hammer will be disengaged. A choker cable connected to the crane will be attached to the pile, and the pile will be lifted from the water and placed upland. This process will be repeated for the remaining piling. Extracted piling will be stored upland, at the staging area, until the piles are transferred for upland disposal. Each such extraction will require approximately 40 minutes (min) of vibratory hammer operation, with up to five piles extracted per day (a total of 3.3 hours per day). Operation of the vibratory hammer is the primary activity within the pier demolition group of activities that is likely to affect marine mammals by potentially exposing them to both in-air (i.e., airborne or sub-aerial) and underwater noise.

Douglas fir pilings are prone to breaking at the mudline. In some cases, removal with a vibratory hammer is not possible because the pile will break apart due to the vibration. Broken or damaged piling can be removed by wrapping the individual pile with a cable and pulling it directly from the sediment with a crane. If the pile breaks between the waterline and the mudline it will be removed by water jetting. Water jetting would potentially be performed by divers working around the base of the piles and is not expected to have the potential to result in incidental take of marine mammals.

A floating oil containment boom surrounding the work area will be deployed during creosote-treated timber pile removal. The boom will also collect any floating debris. Oil-absorbent materials will be deployed if a visible sheen is observed. The boom will remain in place until all oily material and floating debris has been collected. Used oil-absorbent materials will be disposed of at an approved upland disposal site. The contractor shall also follow Best Management Practices (BMPs): NS-14-Material Over Water, NS-15—Demolition Adjacent to Water, and WM-4-Spill Prevention and Control listed in the California

Stormwater Quality Association (CASQA) Handbook.

The existing Douglas-fir piles are creosote treated. The depth of creosote penetration into the piles varies from 0.6 to 5.1 cm (0.25 to 2 in). Creosote is composed of a mixture of chemicals that are potentially toxic to fish, other marine organisms, and humans. Polycyclic aromatic hydrocarbons (PAH), phenols and cresols are the major chemicals in creosote that can cause harmful health effects to marine biota. The replacement of the creosote treated piles with CISS concrete piles is expected to eliminate potential contamination of the water column by PAH, phenols and cresols from the existing treated wood piles.

All removed piles shall be temporarily stored at the upland staging areas until all demolition activities are complete (approximately 6 months). Following the cessation of demolition activities, the creosote treated piles will be transported by the Contractor to Anderson Landfill in Shasta County. This landfill is approved to accept construction demolition, wood wastes, and non-hazardous/non-designated sediment.

The pressure treated 2x4 in Douglasfir decking will also be stored at the staging area until demolition is complete. The partially pressure treated decking and railing may be reused and will be kept by the Trinidad Rancheria for potential future use.

Pile Installation

Design—Two 45.7 cm (18 in) diameter battered piles, which are designed to resist lateral load, will be located on each side of the pier at 12:1 slopes. Three vertical piles, which are designed to support 50 tons of vertical loads, will be located between the battered piles separated 1.5 m (5 ft) apart.

Overview—New piles will be installed initially from shore and then, as construction proceeds, from the reconstructed dock. Following removal of each existing pile, steel casings will be vibrated (using a vibratory hammer) to a depth of approximately 0.8 m (2.5 ft) above the top elevation of the proposed pile (7.6 to 10.7 m [25 to 35 ft] below the mudline). The steel shell of 1.9 cm (3/4 in) thickness shall extend from above the water surface to below the upper layer of sediment, which consists of sand, into the harder sediment, which consists mostly of weathered shale and sandstone. The steel shell will be coated with polymer to protect the casings from corrosion. The steel shell will be coated with polymer to protect the casings from corrosion. The steel shell shall be used

to auger the holes and will then be cleaned and concrete poured using a tremie to seal the area below the shell. The shell will then be dewatered and a steel rebar cage installed prior to pouring concrete to fill the shell. These steps are described in further detail below.

Pile Excavation—Following installation of the steel casing, each hole will be augered to the required pile depth of 7.6 to 10.7 m (25 to 35 ft) below the mudline. An auger drill shall be used to excavate the sediment and rock from the steel shell. Geotechnical studies (Taber, 2007) indicate that the material encountered in the test borings can be excavated using typical heavy duty foundation drilling equipment. Driving the new piles and augering the holes are the primary activities within the pile installation group of activities most likely to result in incidental harassment of marine mammals by potentially exposing them to underwater and in-air noise.

Steel casing member of 1.9 cm (3/4 in) thickness shall be used to form the CISS concrete foundation columns in underwater locations. In this technique, inner and outer casings are partially imbedded in the ground submerged in the water and in concentric relationship with one another. The annulus formed between the inner and outer casings is filled with water and cuttings, while the inner casing is drilled to the required depth, and the sediment is removed from the core of inner steel casing. Following removal of the core, the outer casing is left in place as the new pile shell.

The sediment and cuttings excavated shall be temporarily stockpiled in 50 gallon drums (or another authorized sealed waterproof container) at the staging area until all excavations are complete and then transferred for upland disposal at the Anderson Landfill or another approved upland sediment disposal site.

The existing piles extend to approximately 6.1 m (20 ft) below the mudline. Each one of the existing 0.3 m (1 ft) diameter pile has displaced 0.4 m³ (15.7 ft³) of sediment. There are approximately 205 wood piles to be removed. The total amount of sediment displaced by the existing piles is approximately 91.7 m³ (3,238.4 ft³). Each of the proposed CISS piles requires the displacement of approximately 1.5 m³ (53 ft³) of sediment. There are 115 CISS piles to install. A total of approximately 172 m³ (6,074 ft³) of sediment would have to be removed in order to auger 115 holes to a depth of 9.1 m (30 ft) below the mudline. It is estimated that 7.6 to 76.5 m3 (268.4 to

2,701.5 ft3) would have to be removed during pile installation. Many new holes will be augered in the location of existing piles where they overlap. As a result, less sediment will be required to be removed than would be required for the construction of a new pier, however, the exact location and penetration of the old piles is not recorded and will be determined during reconstruction activities. Therefore, a range of quantity of material to be removed is specified. Existing holes created by old wood piles removed and that do not overlap with the location of holes augered for the new piles will collapse and naturally fill with adjacent sediment.

Most of the sediment excavated is expected to be in the form of cuttings if the hole is augered and/or drilled at a location of exiting piles. Sediment removed from the inner core during augering shall be mostly dry due to the compression created in the core during augering. Approximately fifty 50-gallon drums will be used to store the cuttings and sediment prior to disposal upland. The contractor shall implement BMPs WM-3—Stockpile Management, WM-4—Spill Prevention and Control, and WM-10—Liquid Waste Management listed in the CASQA Handbook (see the handbook for details at: http:// www.cabmphandbooks.com/ Development.asp).

Concrete Seal Installation—A tremie (i.e., a steel pipe) will be used to seal the bottom 0.9 m (3 ft) of the hole below the bottom of the steel shell and above the ground. Before the tremie seal is poured, the inside walls of the pile will be cleaned by brushing or using a similar method of removing any adhering soil or debris in order to improve the effectiveness of the seal. A "cleaning bucket" or similar apparatus will be used to clean the bottom of the excavation of loose or disrupted material.

The tremie is a steel pipe long enough to pass through the water to the required depth of placement. The pipe is initially plugged until placed at the bottom of the holes in order to exclude water and to retain the concrete, which will be poured. The plug is then forced out and concrete flows out of the pipe to its place in the form without passing through the water column. Concrete is supplied at the top of the pipe at a rate sufficient to keep the pipe continually filled. The flow of concrete in the pipe is controlled by adjusting the depth of embedment of the lower end of the pipe in the deposited concrete. The upper end may have a funnel shape or a hopper, which facilitates feeding concrete to the tremie. Each concrete

seal is expected to cure within 24 to 48 hours.

Dewatering Methodology—After the tremie seal has been poured, the water will be pumped out of the steel shells, which will act as a cofferdam. Pumping within the excavation at the various footings may be required to maintain a dewatered work area.

The contractor shall test the pH of the water in each casing one day following pouring of the tremie seal to insure that the pH of the water did not change from the ambient pH. The water shall then be pumped into 50-gallon drums and transported to the staging area for discharge through percolation to eliminate solids. Should the pH of the water change from ambient pH, then the contractor shall haul the water to the Eureka Wastewater Treatment Plant for treatment prior to discharge. The contractor is expected to dewater a volume of approximately 450 gallons (1,720 L) each day during pile installation. For the installation of 115 piles, approximately 49,500 gallons (197,800 L) will be dewatered and discharged at the appropriate location at the staging area. Percolation rates will be verified prior to discharge of the ocean water at the designated location at the staging area, but are not expected to be prohibitive due to the sandy texture of the soil. The Contractor shall implement BMP WM-10 Liquid Waste Management as listed in the CASQA Handbook. Liquid waste management procedures and practices are used to prevent discharge of pollutants to the storm drain system or to watercourses as a result of the creation, collection, and disposal of non-hazardous liquid wastes. WM-10 provides procedures for containing liquid waste, capturing liquid waste, disposing liquid waste, and inspection and maintenance.

Completion—Following dewatering of the steel shells, steel rebar cages shall be inserted into each shell. Ready-mix concrete placed into the drilled piers shall be conveyed in a manner to prevent separation or loss of materials. The cement-mixer truck containing the concrete shall be located on land adjacent to the north end of the pier. The concrete shall be pumped to the borings through a pipe (at least 0.9 cm [3/4 in] thick) that will span the length of the pier. When pouring concrete into the hole, in no case shall the concrete be allowed to freefall more than 1.5 m (5 ft). Poured concrete will be dry within at least 24 hours and completely cured within 30 days.

A concrete washout station shall be located in the staging area at the designated location. The contractor shall implement BMP, WM–8—Concrete

Waste Management, as listed in the CASQA Handbook to prevent discharge of liquid or solid waste.

Pier Deck Construction

Following the installation of the concrete piles, pre-cast concrete bent caps measuring 7.6m (25 ft)-long shall be installed on top of each row of pilings. The concrete bents act to distribute the load between the piles and support the pier.

Pre-cast 6.1m (20 ft)-long concrete sections shall be used for the decking. An additional layer of concrete shall be poured following installation of the precast sections. The layer of concrete will allow the decking of the pier to be sloped to the west for drainage purposes and to create an aesthetically pleasing decking. The surface of the decking will be colored and contain an earth tone pattern to match the surrounding environment.

Utilities

Utilities located on the pier will require location during construction and replacement following construction of the pier footings and decking. Utilities include:

Power: A 2 in PG&E power line that is currently attached to the west side of the pier and PG&E electrical boxes located along the west side of the pier.

Sewer: Currently there are no sewer pipes on the pier. Visitors to the pier are served by a temporary restroom located on the south side of the pier. No direct sewer discharge is allowed in the ASBS.

New utilities installed include water, phone, and electrical. New pier utilities will be constructed along the east and west side of the pier and will be enclosed within concrete utility trenches. Water pipes shall be routed along both sides of the pier to several locations along the pier. Phone lines shall be routed along the west side of the pier. All electrical switches will be located in one central box towards the west end of the pier by the loading and unloading landings location.

Lighting installed along the pier shall be designed to improve visibility and safety. The lighting will be embedded in the decking and railing of the pier to minimize light pollution from the pier. Lighting shall be designed to minimize light pollution by preventing the light from going beyond the horizontal plane at which the fixture is directed. Currently, there are lighting poles on the pier. The proposed lighting on the pier will be embedded on the west and east side of the decking separated approximately 7.6 m (25 ft) throughout the length of the pier. The lighting fixtures will have cages for protection

matching the color of the railing. In addition, on the south side of the pier, lighting will be installed in the railing to provide lighting for the working area on the deck of the pier.

Fish cleaning does not occur at the pier. This activity was formerly pursued by recreational users and was discontinued in 2006 due to water quality concerns.

Drainage

There is currently no runoff collection system on the pier. Runoff drains from the existing pier directly into the ASBS. A storm water outfall for the City of Trinidad is located near the base of the pier.

The pier decking shall be sloped to the west in order to direct runoff from the pier to the stormwater collection pipe. The runoff shall be routed along the west side of the pier and conveyed by gravity to a new upland manhole and storm chamber containing treatment media. All stormwater will be infiltrated within the storm chamber; there will be no discharge from the system. See Appendix C, drawings C-5 to C-8 of the IHA application, for details of the conveyance and treatment system. The pier-deck construction, utility replacement, and drainage improvements are anticipated to result in discountable effects to marine mammals.

BMPs

Pier Demolition Methods:

• Waters shall be protected from incidental discharge of debris by providing a protective cover directly under the pier and above the water to capture any incidental loss of demolition or construction debris.

- A floating oil containment boom surrounding the work area will be used during the creosote-treated timber pile removal. The boom will also collect any floating debris. Oil-absorbent materials will be employed if a visible sheen is observed. The boom will remain in place until all oily material and floating debris has been collected and sheens have dissipated. Used oil-absorbent materials will be disposed of at an approved upland disposal site.
- All removed piles shall be temporarily stored at the upland staging areas until all demolition activities are complete (approximately 6 months).
- Following the cessation of demolition activities, the creosote treated piles will be transported by the Contractor to an upland landfill approved to accept such materials.
- The pressure treated 2 x 4 in Douglas fir decking will also be stored in the staging area until demolition is

complete. The partially pressure treated decking and railing may be reused and will be kept by the Trinidad Rancheria for further use.

- The contractor shall also follow BMPs: NS-14—Material Over Water, NS-15—Demolition adjacent to Water, and WM-4—Spill Prevention and Control listed in the CASQA Handbook. Pile Installation:
- The sediment and cuttings excavated shall be temporarily stockpiled in 50 gallon (189 L) drums (or another authorized sealed waterproof container) at the staging area until all excavations are complete and then transferred for upland disposal at the Anderson Landfill or another approved upland sediment disposal site.
- The contractor shall implement BMPs WM-3—Stockpile Management, WM-4—Spill Prevention and Control, and WM-10—Liquid Waste Management listed in the CASQA Handbook.
- The contractor shall test the pH of the water in each casing one day following pouring of the tremie seal to insure that the pH of the water did not change by more than 0.2 units from the ambient pH. The water shall then be pumped into 50-gallon drums and transported to the staging areas for discharge through percolation to eliminate solids. Should the pH of the water change from ambient pH, then the contractor shall haul the water to the Eureka Wastewater Treatment Plant for treatment prior to discharge.
- The contractor shall implement BMP WM—10 Liquid Waste Management as listed in the CASQA Handbook. Liquid waste management procedures and practices are used to prevent discharge of pollutants to the storm drain system or to watercourses as a result of the creation, collection, and disposal of non-hazardous liquid wastes. WM—10 provides procedures for containing liquid waste, capturing liquid waste, disposing liquid waste, and inspection and maintenance.
- A concrete washout station shall be located in the staging area at the designated location. The contractor shall implement BMP, WM–8—Concrete Waste Management, as listed in the CASQA Handbook to prevent discharge of liquid or solid waste.

Pier Construction:

- No concrete washing or water from concrete will be allowed to flow into the ASBS and no concrete will be poured within flowing water.
- Waters shall be protected from incidental discharge of debris by providing a protective cover directly under the pier and above the water to

capture any incidental loss of demolition or construction debris.

Utilities

• Lighting will be embedded in the decking and railing of the pier to minimize light pollution from the pier. Lighting shall be designed to minimize light pollution by preventing the light from going beyond the horizontal plain at which the fixture is directed so the light is directed upwards.

Drainage:

• The pier decking shall be sloped to the west in order to direct runoff from the pier to the stormwater collection pipe. The runoff shall be routed along the west side of the pier and conveyed by gravity to a new upland manhole and storm chamber containing treatment media. Drainage from the storm chamber shall not be conveyed to Trinidad Bay, but will entirely be infiltrated within the storm chamber. See Appendix A, drawings C-5 to C-8, for details.

Construction Timing and Sequencing:

• Noise-generating construction activities, including augering, pile removal, pile placement, and concrete pumping, will only be allowed from 7 a.m. to 7 p.m. These hours shall be further restricted as necessary in order for Protected Species Observers (PSOs) to perform required observations.

Project Benefits:

The existing pier has pole lighting that illuminates the water surface; the proposed pier has lighting designed to avoid such illumination. The existing pier has dark wood and over 200 piles. The proposed pier, with 205 piles to be removed and 115 piles to be installed and a white concrete construction, will result in less shading of nearshore habitat. The project may have benefits to environmental resources other than marine mammals. This notice describes in detail BMPs that will be implemented for the project. The BMPs are focused almost exclusively on protecting water quality, and while they may have ancillary benefits to some marine resources such as Essential Fish Habitat (EFH), they are not intended to serve as monitoring and mitigation measures for adverse effects to marine mammals. The only exception might be the ability to further modify noise timing restrictions to allow PSOs to perform their duties.

Additional details regarding the piledriving and renovation operations for the Trinidad Pier Reconstruction Project can be found in the Trinidad Rancheria's IHA application and BA, as well as the U.S. Army Corps of Engineers (ACOE) and NMFS EA. The IHA application, BA, and ACOE and NMFS EA can also be found online at: http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications.

Dates, Duration, and Specific Geographic Area

The Trinidad Pier Reconstruction Project is located in the city of Trinidad, California, Humboldt County, at Township 8N, Range 1W, Section 26 (41.05597° North, 124.14741° West) (see Figure 2–1 of the BA). The construction schedule is from August 1, 2011 to May 1, 2012, with noise and activity effects requiring an IHA, occurring from August 1, 2011 through January 31, 2012.

Trinidad Bay is a commercial port located between Humboldt Bay and Crescent City. The bay contains numerous vessel moorings which include permanent commercial vessel anchors as well as 100 moorings that are placed for recreational vessel owners (Donahue, 2007). The uplands have residential, commercial and recreational land use classifications. The Trinidad Pier parcel was owned by the State of California, but was granted to the City of Trinidad which leases the tidelands to the Cher-Ae Heights Indian Community of the Trinidad Rancheria. The parcels to be used for the staging area are owned by Trinidad Rancheria, the City of Trinidad, and the U.S. Coast Guard.

Trinidad Bay is a shallow, open bay about 0.8 km (0.5 mi) deep (in the southwest-northeast direction) and 1.6 km (1 mi) wide (in the northwestsoutheast direction). Figure 1 of the IHA application shows the whole bay. Generally the bay shelves at a moderate slope to about 9.1 m (30 ft) depth and then flattens out, with most of the outer bay between 9.1 to 15.2 m (30 to 50 ft) deep. Substrates in the bay include rock, cobble, gravel and sand. The floor of the bay is irregular with some areas of submerged rock. The project area comprises the 0.31 acre pier over marine habitats and a staging area (the gravel parking lot located west of the pier) covering 0.53 acres of upland area.

Construction Timing and Sequencing

The project is expected to be completed within nine months (approximately six months of loud noise-producing activities). Reconstruction of the pier is planned to commence on August 1, 2011 and terminate on May 1, 2012. Excluding weekends and holidays, a total of 217 working days will be available for work during this period. During the winter months (November to March) severe weather conditions are expected to occur periodically at the project site. The contractor may have to halt the

work during pile installation due to strong winds, large swells, and/or heavy precipitation. Construction during the remainder of the year should not be impeded by large swells, but may be halted due to strong winds or precipitation; however, Trinidad Harbor is a sheltered area and does not often experience severe weather that would preclude the work. The contractor will work five days per week from 7 a.m. to 7 p.m. Should severe weather conditions cause delays in the construction schedule, the contractor will work up to seven days per week as needed to ensure completion by May 1,

Removal of all existing piles and decking and construction of the new pier will occur simultaneously. The existing decking and piles will be removed and new piles installed from the reconstructed pier. Pile bents will be separated 7.6 m (25 ft) apart. Following the installation of two successive pile bents, a new precast concrete deck section shall be installed. The contractor shall continue in this manner from the north end (shore) to south end (water terminus) of the existing pier.

The contractor is expected to spend approximately six months (August through January) on pile removal and installation and the remaining three months (February through April) on deck and utilities reconstruction. It is estimated that each boring can be lined with a pile and excavated within 6 to 8 hours. Pouring of the concrete seals is expected to take approximately two hours for each pile. The contractor is expected to remove an existing pile and install one new steel shell and pour a concrete seal each day, with a total of six to eight hours required for the process (i.e., 115 piles to be placed [one per day] during 115 days of work or 23 weeks of 5 days each). The final pour of the concrete piles is expected to take approximately two hours to fill the steel shells and is expected to cure within one week.

It is expected that reconstruction of one row of piles and bents will take one week. Pile and bents will be installed over a discontinuous period of approximately 23 weeks. A new pre-cast concrete section of decking will be installed following the installation of two successive rows of piles and associated bents. The last 3 months will be used for pouring of the top layer of the decking and utilities construction.

Action Area

The action area is defined as all areas directly or indirectly affected by the proposed action. Direct effects of the action are potentially detectable in all lands and aquatic areas within the project area, including the staging area. The project would also directly affect 7.9 m (26 ft) of the Trinidad Bay shoreline.

In-air (i.e., sub-aerial) and underwater sound effects would be the most laterally extensive effects of the action and thus demarcate the limits of the action area. Assuming that underwater sound attenuates at a rate of -4.5 dB re 1 µPa (rms) for each doubling of distance, underwater sound from piledriving (detailed in Section 6 of the BA) would elevate noise above 120 dB (rms) up to 800 m (2,625 ft) (the Port of Anchorage measured 168 dB re 1 µPa [rms] at a distance of 20 m from a pile, application of the practical spreading model with 4.5 dB attenuation for doubling of distance yields 120 dB [rms] at 800 m) seaward in all areas on a lineof-sight to the pier (Illingworth & Rodkin, 2008). The rationale for use of 120 dB (rms) as a metric is detailed in Section 6.6.1 of the BA, but also has a practical value because 120 dB (rms) is the lowest threshold currently used to detect underwater sound effects to any of the animals discussed in this analysis. Actual ambient underwater sound levels are probably quite variable in response to sound sources such as wave action and fishing vessel traffic. The assumptions regarding in-air and underwater noise in the IHA application, BA, and in this notice are generally regarded as extremely conservative.

In-air (or sub-aerial) sound would be generated by equipment used during construction; the loudest source of such sound would be vibratory pile-driving, which generates a sound intensity of approximately 104 dB at 15.2 m (50 ft) (FHWA, 2006). Assuming an ambient background noise level of 59 dB, typical of residential neighborhoods, and a sound attenuation rate of 7.5 dB (rms) for each doubling of distance, the action area for aerial sound would extend 975.4 m (3,200 ft) in an unobstructed landward direction from the dock. The action area would extend farther in a seaward direction, because aerial sound attenuates with distance more slowly over water and also because ambient noise levels are potentially quieter in that direction. Assuming an attenuation rate of 6 dB (rms) for each doubling of distance and an ambient marine noise background of 50 dB, the action area for above-water effects would extend 7.7 km (4.8 mi) seaward from the pier.

The seaward attenuation rate assumes no environmental damping or attenuation and thus is produced by a simple inversion square law. The landward attenuation rate assumes a

low level of environmental damping due to non-forest vegetation, structures, topography, etc. and corresponds to the rate recommended by WSDOT (2006) for terrestrial in-air in non-forest environments. The 59 dB and 50 dB estimates are based on EPA (1971), a standard source of data on typical background sound levels (in dBA) for various environments. These typical levels were revised upwards by approximately 3 dB because the dBA curve down-weights sound intensity at the lower frequencies typical of vibratory pile-driving noise, which is the principal source of noise considered in demarcation of an action area for the action. Thus the 59 dB and 50 dB values represent unweighted estimates of background sound levels.

The IHA application and BA provide a detailed explanation of the Trinidad Pier Reconstruction Project location as well as project implementation.

NMFS outlined the project in a previous notice for the proposed IHA (76 FR 28733, May 18, 2011). The activities to be conducted have not changed between the proposed IHA notice and this final notice announcing the issuance of the IHA. For a more detailed description of the authorized action, including reconstruction operations and acoustic source specifications, the reader should refer to the proposed IHA notice (76 FR 28733, May 18, 2011), the IHA application and associated documents referenced above this section.

Comments and Responses

A notice of proposed IHA was published in the **Federal Register** on May 18, 2011 (76 FR 28733). During the 30-day public comment period, NMFS received comments from the Marine Mammal Commission (Commission) only. The Commission's comments are online at: http://www.nmfs.noaa.gov/pr/permits/incidental.htm. Following are the Commission's comments and NMFS's responses:

Comment 1: The Commission recommends that the NMFS defer issuance of the IHA until it has required the applicant to develop a more realistic estimate of the number of harbor seal takes that:

- (1) Accounts for all harbor seal haulout sites in the area;
- (2) Corrects seal abundance estimates to account for seals in the water during the counts;
- (3) Incorporates a more realistic assessment of the portion of seals that will enter the water in the Level B harassment zone during the proposed construction operations;

(4) Includes a reasoned basis for estimating takes that occur from in-air construction sound; and

(5) Is based on a realistic estimate of the time required to remove 205 wood piles.

Response: (1) NMFS and Trinidad Rancheria believe that the action described does account for all harbor seal haul-out sites in the action area. The Commission indicates that they believe that harbor seals hauling out within 50 km (31.1 mi) of the site are likely to be present in the action area. Golev et al. (2007) state, in literature review, that the seals are year-round residents; that they are non-migratory, dispersing from a centralized location to forage; and that they exhibit high site fidelity, utilizing one to two haul-out sites within their range and rarely traveling more than 25 to 50 km (15.5 to 31.1 mi) from these haul-outs. If it is not shown that these seals use any other haul-outs, then there is no other logical conclusion that that these seals must be Trinidad Bay residents. The Commission's proposition that seals from elsewhere would enter Trinidad Bay, which already has a large resident seal population, to forage, is interesting but not corroborated by any data. Moreover, even if true, it is not apparent that it affects the analyses in this document, since there is no basis for inference about the frequency or duration of such activity.

Also, the assessment is based upon a personal communication with Dawn Goley and Trinidad Rancheria representatives, specifically, a telephone conversation on March 23, 2009, when she observed that the Humboldt Bay seals show high site fidelity for sandy beach haul-outs, whereas the Trinidad Bay and Patrick's Point seals have corresponding fidelity for rocky haulouts. Data supporting this inference was not discussed.

Dawn Golev has stated that it is unknown whether there is interchange between the Patrick's Point and Trinidad Bay seals. Data that would allow a conclusive determination on this point, such as genetic or radio/ acoustic tracking studies, have not been gathered. However, Goley et al. (2007) do state (page 10) that "harbor seals exhibit high site fidelity, utilizing one to two haul-out sites within their range (Sullivan 1980, Pitcher et al., 1981; Stewart et al., 1994), rarely traveling more than 25 to 50 km from these haulouts (Brown and Mate, 1983; Suryan and Harvey, 1998). Movements between and the use of alternate haul-out sites has been attributed to the use of alternative foraging areas near their new haul-out site (Thompson et al., 1996b;

Lowry et al., 2001) and the seasonal use of certain haul-out sites for pupping and molting (Herder, 1986; Thompson et al., 1989). Based on the fact that the Palmer's Point and Trinidad Bay haulouts are close to each other (9 km or 5.6 mi) compared to the foraging areas used by harbor seals, and that the Patrick's Point area is home to approximately 1,000 harbor seals (Dawn Goley, pers. comm., March 23, 2009), a far larger grouping than the one found at Trinidad Bay, and given that observations of harbor seals at Trinidad Bay go through strong seasonal fluctuations, it is not appropriate to dismiss a hypothesis that there is interchange between the two areas. If the seals do seasonally vacate Trinidad Bay for alternative foraging grounds, then Patrick's Point is their most likely alternative haul-out.

It does not follow that the Patrick's Point seals vacate that area to forage in Trinidad Bay, as shown by the fact that seal numbers in Trinidad Bay decline during the winter; if the area were increasingly used by Patrick's Point seals during the winter months, then counts of seals at Trinidad Bay would increase. They likely do not. Goley et al. (2007) state that harbor seals "are typically less abundant during the winter months as seals tend to spend more time foraging at sea during this time." In this context "at sea" and "offshore" are interpreted as equivalent and neither term is numerical. The seals are not in Trinidad Bay and are therefore offshore.

(2) The Commission cites a correction factor of 1.54 for harbor seals at sea, and contends that this requires a 50% increase in the estimate of incident take. NMFS and the Trinidad Rancheria addressed the use of this correction factor in the notice of proposed IHA in response to previous Commission comments.

Note that the notice of proposed IHA does not state that harbor seals spend 10% of their time in the water, but states that they spend 10% of their time within the radius of effect. The radius of effect is only a small fraction of Trinidad Bay, and only a fraction of the rocks that comprise the Indian Beach haul-out of Goley *et al.* (2007) are within that radius of effect.

Lowry et al. (2008) present a discussion of correction factors. They used a correction factor of 1.65, indicating that about 40% of seals were hauled-out. They also note that their study was performed at a time when the largest possible fraction of seals would likely be hauled-out—during the molt, and at local low tides. The proposed work, however, would be performed after the molt had concluded. The

correction factor suggested by the Commission of 1.54 is not significantly different from that determined by Lowry et al. (2008) and may also be used; this correction factor is therefore used in the estimate of potential harbor seal take presented below in this document.

(3) The Commission states that Trinidad Rancheria's action will incidentally take marine mammals many kilometers out to sea, where the underwater sound generated by the renovation operations would only slightly exceed ambient (background) noise levels and would be far less audible than other episodic anthropogenic sound sources such as the passage of deep-draft vessels. NMFS and the Trinidad Rancheria regard the potential for take of animals outside of Trinidad Bay as unlikely due to sound attenuation, other background sound sources (e.g., waves, wind, rain, etc.), and resident harbor seal habituation to the existing marine acoustic environment.

Analysis regarding the effects of underwater sound was presented in the revised IHA application dated July 23, 2010, and presents figures indicating the area of potential effect for Level B harassment (see Table 4 "Noise generating activities" and "Potential for Biological Effects" section below [Table 4 of the IHA application]). Based on this analysis and the foregoing discussion of seal use of Trinidad Bay, it is anticipated that behavioral effects could result to all seals that were in the water within Trinidad Bay during the portion of the day when in-water noise was being generated by pile-removal, augering, or pile-driving. As noted earlier, the average number of seals observed at the Trinidad Bay haul-out during the time when in-water noise would be produced is 36.5 seals, which with a correction factor of 1.54 indicates a Trinidad seal population at that time of 56.2 or approximately 57 individuals, with these seals spending approximately 35% (1 – [36.5/56.2]) of their time in the water.

As noted above, Golev et al. (2007) state that harbor seals "are typically less abundant during the winter months as seals tend to spend more time foraging at sea during this time," therefore, only a fraction of the seals would actually be present in Trinidad Bay at the time of noise produced by the Trinidad Pier Renovation Project. No direct measurements are available that would allow estimation of that fraction, although it is known that harbor seal abundance in Trinidad Bay declines from a summer peak of 67 harbor seals in July to a winter minimum of 25 in November (Goley et al., 2007). As

further noted above, harbor seals exhibit high site fidelity, utilizing one to two haul-out sites within their range (Sullivan, 1980; Pitcher *et al.*, 1981; Stewart et al., 1994), rarely traveling more than 25 to 50 km from these haulouts (Brown and Mate, 1983; Survan and Harvey, 1998). If it is assumed that winter foraging Trinidad Bay harbor seals travel up to 25 km from their haulout, then their foraging area covers approximately 982 km² (379.2 mi²) (a half-circle with a 25 km radius), whereas the area of Trinidad Bay is approximately 5 km² (1.9 mi²). This would suggest that fewer than 1% of the seals in the water at any given time would be found in Trinidad Bay. This is likely an underestimate, as seals bound to and from the haul-out would necessarily have to spend some time in passage through the waters of Trinidad Bay. However, it does suggest that no more than a very few seals are likely to be in the waters of Trinidad Bay at any time when underwater noise is being produced from renovation activities. It is conservatively estimated that one seal may be exposed during the course of any individual pile-removal, augering, or pile-driving event. During the total of 164 days when underwater noise would be produced from any one of these three activities, there would be 435 noiseproducing events, or an average of 435/ 164 = 2.65 events per day, resulting in potential exposure of 435 harbor seals over the duration of the planned activities.

(4) The estimation of incidental takes that would occur as a result of in-air sound has been analyzed in detail in the IHA application and correspondence with the Trinidad Rancheria. Based on in-air noise measurements taken during vibratory pile-driving as reported by Laughlin (2010), in-air noise production during pile driving at the Trinidad Pier will likely be between 87.5 and 96.5 dB re 20 μPa (unweighted). For purposes of the analysis presented below, it is assumed that in-air noise from vibratory pile-driving would produce 96 dB (rms) (unweighted). This noise would be produced during both pile-removal and pile-placement activities. The augering equipment produces slightly less noise at a level of 92 dB (rms) (unweighted). Assuming an attenuation rate of 6 dB per doubling of distance, this indicates that sound from in-air pile-removal or pile-placement would attenuate to the Level B threshold for harbor seals (90 dB) at a distance of 30.5 m (100 ft). Sound from augering would attenuate to the Level B harassment threshold at a distance of approximately 18.3 m (60 ft). There are no haul-outs located this close to the pier, but there are anecdotal reports of harbor seals surfacing near boats alongside the pier, and it is thus possible that occasional exposure could occur. Such an event is unlikely because anecdotal reports of harbor seals at the pier are associated with seals seeking food from recreational and commercial fishing boats, which would no longer use the pier during reconstruction activities; thus the pier would no longer function as a foraging resource (during construction, fishing boats could unload at the boat ramp, which is located several hundred feet from the pier and is blocked from the construction area by an intervening headland). It is conservatively estimated that seal exposure to in-air sound in excess of the Level B harassment threshold could occur during up to 20% of the in-air noise producing events, or a total of 87 events during the period of construction. Based on this information, NMFS has determined that 174 harbor seals may be taken by Level B harassment from exposure to in-air sounds produced during the renovation operations. This number would be verified by the monitoring data.

(5) The Trinidad Rancheria states (via the construction contractor) that 58 construction days would be adequate to remove 205 wood piles, a removal rate of approximately 3.5 piles per day, as stated in correspondence and the Trinidad Rancheria's IHA application. There is no reason to believe that this is not feasible.

Comment 2: The Commission recommends that the NMFS defer issuance of the IHA until it has reviewed estimates of numbers of takes for California sea lions and gray whales during the proposed activities.

Response: NMFS and Trinidad Rancheria revised and addressed the Commission's concerns regarding estimates of numbers of takes for harbor seals, California sea lions, and gray whales incidental to the specified activities during review by the Commission prior to the notice of proposed IHA being published in the Federal Register. NMFS and Trinidad Rancheria believe that the take estimation analysis in the IHA is accurate and likely overestimates the potential for take in some cases as necessary to account for uncertainty. Accordingly, further review of the take estimation is unnecessary.

Comment 3: The Commission recommends that the NMFS defer issuance of the IHA until it has reestimated the distances to various inwater and in-air Level A and B harassment thresholds for all three types of proposed sound-producing activities

and then re-evaluated the proposed mitigation and monitoring measures to ensure that the appropriate areas are adequately monitored.

Response: NMFS and Trinidad Rancheria revised and addressed the Commission's concerns regarding estimates of distances to various inwater and in-air Level A and Level B harassment thresholds for all three types of sound-producing activities planned as part of the Trinidad Pier Reconstruction Project during draft review by the Commission prior to the notice of proposed IHA being published in the Federal Register. NMFS and Trinidad Rancheria revised the analysis for the potential of incidental take in accordance with the Commission's recommendations for a harbor seal correction factor, which is discussed in Comment 2. The changes are numerically minor, and NMFS and Trinidad Rancheria do not find evidence that significant changes are necessary to the planned monitoring and reporting plan.

Comment 4: The Commission recommends that the NMFS defer issuance of the IHA until it has required the applicant to verify the associated Level A and B harassment zones through calibrated in-situ sound measurements and to adjust those zones

as appropriate.

Response: Trinidad Rancheria's current monitoring study incorporates this recommendation with regard to underwater sound. The expected threshold for Level A harassment and associated exclusion zones (EZs) for pinnipeds (i.e., 190 dB) are 0.9 m (3 ft), 0 m (0 ft), and 0 m (0 ft) for pile-driving, augering, and pile-removal, respectively. The expected threshold for Level A harassment and associated EZs for cetaceans (i.e., 180 dB) are 4.9 m (16 ft), 0.3 m (1 ft), and 21.6 m (71 ft) for pile-driving, augering, and pile-removal, respectively. NMFS has not determined Level A harassment thresholds for marine mammals for in-air noise; however, Southall et al. (2007) recommends 149 dB re 20 µPa (peak) (flat) as the potential threshold for injury from in-air noise for all pinnipeds. Operation of a vibratory piledriver would produce in-air sound intensity of 96 dBA at 50 ft. This is the in-air sound level for both pile-removal and pile-installation. Operation of the auger would produce in-air sound of 92 dBA at 15.2 m (50 ft). Using the attenuation rate of 6 dB for each doubling of distance, the loudest noise from reconstruction operations (i.e., pile-driving) would be 136 dBA at a distance of 0.3 m (10 inches), so it is not physically possible for a pinniped to be

exposed to a level of sound that could be potentially injurious, especially since a shut-down would occur if any pinniped approaches or enters the inwater EZ for Level A harassment. Also, the applicant has agreed to perform inair monitoring to verify the Level B harassment zone for in-air sound and is required by NMFS in the IHA.

Comment 5: The Commission recommends that the NMFS defer issuance of the IHA until it has required that shut-down procedures be established for both species of

pinnipeds.

Response: Trinidad Rancheria will implement shut-down procedures for underwater noise to avoid the potential for Level A harassment (injury) for all species of marine mammals during the Trinidad Pier Reconstruction Project. NMFS has included a requirement to this effect in the IHA. Because in-air sound levels would not reach the injury threshold noted by Southall et al. (2007), there would be no need to have a requirement for shut-down when pinnipeds are hauled-out.

Comment 6: The Commission recommends that the NMFS defer issuance of the IHA until it has provided further analysis and justification regarding the efficacy of visual monitoring for the proposed activities and the manner in which the number of takes can be determined

accurately.

Response: NMFS believes that the planned visual monitoring program will be sufficient to detect, with reasonable certainty, the majority of marine mammals within or entering identified EZs. This monitoring, along with the required mitigation measures, will result in the least practicable impact on the affected species or stocks and will result in a negligible impact on the affected species or stocks of marine mammals. Also, NMFS expects some animals to avoid areas around the reconstruction operations ensonified at the level of the EZ.

The effectiveness of the monitoring and mitigation measures is science-based and is based on the requirement that monitoring and mitigation measures be "practicable." NMFS believes that the framework for visual monitoring will be effective at spotting the species for which take is requested within the immediate action area where Level A harassment has the most potential to occur.

Comment 7: The Commission recommends that the NMFS defer issuance of the IHA until it has required the applicant to use 30 min as the appropriate clearance time for gray whales before ramp-up activities may commence and to use hydrophones for acoustic detection of gray whales.

Response: While passive acoustic monitoring is continuously evolving, the technology for underwater detection of marine mammals using hydrophones is largely experimental and is prohibitively expensive in the context of the capital investment and funding mechanisms available for this project. The Trinidad Rancheria is however able to commit to a 30 minute clearance time for gray whales, and NMFS has made this a requirement in the IHA.

Comment 8: The Commission recommends that the NMFS defer issuance of the IHA until it has addressed the deficiencies identified by the Commission and publish a new proposed IHA in the Federal Register with the corrected information and provide for an additional 30 day comment period.

Response: NMFS and the Trinidad Rancheria have addressed all issues identified and recommended by the Commission. NMFS believes that publishing a new proposed IHA in the Federal Register with the corrected information and providing an additional 30 day public comment period is unnecessary, as it would delay scheduled pile-driving and renovation operations associated with the Trinidad Pier Reconstruction Project. It is essential for the Trinidad Rancheria that construction on the pier begins this August, as failure to meet this deadline would result in loss of the Federal grants supporting this essential tribe infrastructure project and would further endanger public safety and welfare by requiring continuing use of the existing aged pier structure for an indefinite period of time.

Description of Marine Mammals and Habitat Affected in the Activity Area

One cetacean species and two species of pinnipeds are known to or could occur in the Trinidad Bay action area and off the Pacific coastline (see Table 1 below). Eastern Pacific gray whales, California sea lions, and Pacific harbor seals are likely to be found within the activity area. Steller sea lions and transient killer whales could potentially

be found in small numbers within the activity area, but authorization for "take" by incidental harassment is not requested for Steller sea lions and transient killer whales due to their rarity and the feasibility of avoiding impacts to these species by pausing work in the event that they are detected, as detailed in the Marine Mammal Monitoring Plan. NMFS, based on the best available science, agrees that transient killer whales and Steller sea lions are not likely to be present in the action area during implementation of the specified activities and are thus unlikely to be exposed to the effects of the specified activities. NMFS does not expect incidental take of these marine mammal species and therefore has not authorized take of these two species in the IHA. The potential presence of Steller sea lions is detailed in Section 5.6 of the Trinidad Rancheria's BA. The potential presence of gray whales, killer whales, harbor seals, and California sea lions is detailed in Appendix C of the IHA application (see ADDRESSES).

A variety of other marine mammals have on occasion been reported from the coastal waters of northern California. These include bottlenose dolphins, harbor porpoises, northern elephant seals, northern fur seals, and sea otters. However, none of these species have been reported to occur in the action area, and in particular none were mentioned by the regional NMFS specialist in the identification of species to be addressed in the IHA application. The sea otter is managed under the jurisdiction of the U.S. Fish and , Wildlife Service (USFWS) and is not considered further in this analysis. The USFWS has informed the ACOE that a section 7 consultation under the ESA is not necessary for any of their jurisdictional species, including sea otters. Table 1 presents information on the cetacean and pinnipeds species, their habitat, and conservation status in the general region of the project area. The notice of proposed IHA (76 FR 28733, May 18, 2011) contained a complete description on the status, abundance, distribution, and seasonal distribution of Pacific harbor seals, California sea lions, Eastern Pacific grav whales, Steller sea lions, and killer whales. That information has not changed and is therefore not repeated here.

TABLE 1—THE HABITAT AND CONSERVATION STATUS OF MARINE MAMMALS INHABITING THE GENERAL REGION OF THE ACTION AREA IN THE PACIFIC OCEAN OFF THE U.S. WEST COAST

Species	Habitat	ESA ¹	MMPA ²
Mysticetes:			
Gray whale (Eschrichtius robustus).	Coastal and shelf	DL—Eastern Pacific stock (or population)	NC—Eastern Pacific stock (or population).
,		EN—Western Pacific stock (or population)	D—Western Pacific stock (or population).
Odontocetes:			, , , ,
Killer whale (Orcinus orca)	Widely distributed	NL	D—Southern Resident and AT1 Transient populations.
Bottlenose dolphin (<i>Tursiops truncatus</i>).	Offshore, inshore, coastal, estuaries.	NL	NČ .
Harbor porpoise (<i>Phocoena</i> phocoena).	Coastal and inland waters.	NL	NC
Pinnipeds:			
Pacific harbor seal (<i>Phoca</i> vitulina richardsi).	Coastal	NL	NC
Northern elephant seal (<i>Mirounga angustirostris</i>).	Coastal, pelagic when migrating.	NL	NC
California sea lion (<i>Zalophus californianus</i>).	Coastal, shelf	NL	NC
Steller sea lion (Eumetopias jubatus).	Coastal, shelf	Т	D
Northen fur seal (Callorhinus ursinus).	Pelagic, offshore	NL	D—Pribilof Island/Eastern Pacific population.

¹ U.S. Endangered Species Act: EN = Endangered, T = Threatened, NL = Not listed, DL = Delisted.

Further information on the biology and local distribution of these marine mammal species and others in the region can be found in the Trinidad Rancheria's application and BA, which is available upon request (see ADDRESSES), and the NMFS Marine Mammal Stock Assessment Reports, which are available online at: http://www.nmfs.noaa.gov/pr/species/.

Potential Effects of Activities on Marine Mammals

The Trinidad Rancheria requests authorization for Level B harassment of three species of marine mammals (i.e., Pacific harbor seals, Eastern Pacific gray whales, and California sea lions) incidental to the use of heavy equipment and its propagation of underwater and in-air noise from various acoustic mechanisms associated with the Trinidad Pier Reconstruction Project and the specified activities discussed above. Marine mammals potentially occurring in Trinidad Harbor include Pacific harbor seals, Eastern Pacific gray whales, California sea lions, Steller sea lions, and killer whales (transient). Killer whale and Steller sea lion observations in the specific geographic area, as noted, are very rare (less than one per year) and thus not likely to be affected by the proposed action. But the gray whale and California sea lion are observed occasionally, and harbor seals are seldom absent from the harbor, and thus considered likely to be exposed to

sound associated with the Trinidad Pier Reconstruction Project.

Current NMFS practice, regarding exposure of marine mammals to highlevel underwater sounds is that cetaceans and pinnipeds exposed to impulsive sounds of at or above 180 and 190 dB (rms) or above, respectively, have the potential to be injured (i.e., Level A harassment). NMFS considers the potential for behavioral (Level B) harassment to occur when marine mammals are exposed to sounds below injury thresholds but at or above the 160 dB (rms) threshold for impulse sounds (e.g., impact pile-driving) and the 120 dB (rms) threshold for continuous noise (e.g., vibratory pile-driving). No impact pile-driving is planned for the activity in Trinidad Bay. Current NMFS practice, regarding exposure of marine mammals to high-level in-air sounds, as a threshold for potential Level B harassment, is at or above 90 dB re 20 μ Pa for harbor seals and at or above 100 dB re 20 μPa for all other pinniped species (Lawson et al., 2002; Southall et al., 2007). NMFS has not established a threshold for Level A harassment for marine mammals exposed to in-air noise; however, Southall et al. (2007) recommends 149 dB re 20 µPa (peak) (flat) as the potential threshold for injury from in-air noise for all pinnipeds.

The acoustic mechanisms involved entail in-air and underwater nonimpulsive noise caused by the activities of vibratory pile removal, auger operation, and vibratory pile placement. Anticipated peak underwater noise levels may exceed the 120 dB (rms) threshold for Level B harassment for continuous noise sources, but are not anticipated to exceed the 180 and 190 dB (rms) Level A harassment thresholds for cetaceans and pinnipeds, respectively. Expected in-air noise levels are anticipated to result in elevated sound intensities within 152.4 m (500 ft) of the construction activities involving vibratory pile-driving and augering and do not exceed the injury threshold put forth by Southall et al. 2007 for in-air sound exposure. No other mechanisms are expected to affect marine mammal use of the area. The debris containment boom, for instance, would not affect any haul-out and would not entail noise, and activity in the water is not materially different from normal vessel operations at the pier, to which the animals are already habituated.

The notice of the proposed IHA (76 FR 28733, May 18, 2011) also included a discussion of the potential effects of underwater and in-air noise on marine mammals. NMFS refers the reader to Trinidad Rancheria's application, and the BA for additional information on the behavioral reactions (or lack thereof) by all types of marine mammals to the pier renovation operations.

Underwater Noise

Background—When a pile is vibrated, the vibration propagates through the pile and radiates sound into the water

²U.S. Marine Mammal Protection Act: D = Depleted, NC = Not classified.

and the substrate as well as the air. Sound pressure pulse as a function of time is referred to as the waveform. The peak pressure is the highest absolute value of the measured waveform, and can be negative or positive pressure peak (see Table 1 of the IHA application for definitions of terms used in this analysis). The rms level is determined by analyzing the waveform and computing the average of the squared pressures over the time that comprise that portion of the waveform containing 90 percent of the sound energy (Richardson et al., 1995; Illingworth and Rodkin, 2008). This rms term is described as rms 90 percent in this document. In this analysis, underwater peak pressures and rms sound pressure levels are expressed in decibels (dB) re 1 μPa. The total sound energy in an impulse accumulates over the duration of that impulse.

Baseline Underwater Noise Level— Currently, no data are available describing baseline levels of underwater sound in Trinidad Bay. Sound dissipates more rapidly in shallow waters and over soft bottoms (i.e., sand). Much of Trinidad Bay is characterized by its shallow depth (30 to 50 ft), flat bottom, and floor substrate of rock, cobble, gravel, sand, and irregularly submerged rock in some areas, thereby making it a poor acoustic environment. Currents, tides, waves, winds, commercial and recreational vessels, and in-air noise may further increase background sound levels near the action area. Relevant index information can be derived from underwater sound baselines in other areas. The guietest waters in the oceans of the world are at Sea State Zero, 90 dB (rms) at 100 Hz (National Research Council, 2003; Guedel, 1992). Underwater sound levels in Elliott Bay near Seattle, Washington, representative of an area receiving moderately heavy vessel traffic, are about 130 dB (rms) (WSDOT, 2006). In Lake Pend Oreille, Idaho, an area which, like Trinidad Bay, receives moderate to heavy traffic from smaller vessels, underwater sound levels of 140 dB (rms) are reached on summer weekends, dropping to 120 dB (rms) during quiet mid-week periods (Cummings, 1987). Since Trinidad Bay receives daily, yearround use by a variety of recreational and fishing vessels, a background

underwater sound estimate of 120 dB (rms) is a conservative estimate for daytime underwater noise levels, and was used to calculate the action area for the activity. The rationale for using the background estimate of 120 dB (rms) is based upon comparison with inland or protected marine waters (Puget Sound in Washington, and Lake Coeur d'Alene in Idaho) that are not subject to the severity of wave and storm activity that can occur in the Trinidad Bay area. It is likely that intermittent directional sound sources of higher intensity constitute a part of the normal acoustic background, to which seals in the area are habituated. Assuming that such intermittent background sound sources may be twice as loud as the regionally averaged rms background sound level of 120 dB, then seals are unlikely to show a behavioral response to any sounds quieter than 126 dB (rms). A sound that is as loud as or below ambient/ background levels is likely not discernable to marine mammals and therefore is not likely to have the potential to harass a marine mammal.

Noise Thresholds—There has been extensive effort directed towards the establishment of underwater sound thresholds for marine life. Various criteria for marine mammals have been established through precedent. Current NMFS practice regarding exposure of marine mammals to high-level sounds is that cetaceans and pinnipeds exposed to impulsive sounds of 180 and 190 dB (rms) or above, respectively, have the potential to be injured (i.e., Level A harassment). NMFS considers the potential for Level B harassment (behavioral) to occur when marine mammals are exposed to sounds below injury thresholds, but at or above 160 dB (rms) for impulse sounds at/or above 120 dB (rms) for continuous noise (e.g., vibratory pile-driving). As noted above, current NMFS practice, regarding exposure of marine mammals to highlevel in-air sounds, as a potential threshold for Level B harassment, is at or above 90 dB re 20 μ Pa for harbor seals and at or above 100 dB re 20 μPa for all other pinniped species. Since, as noted above, background sound levels in Trinidad Bay are anticipated to frequently exceed the 120 dB (rms) threshold, this analysis evaluates

potential effects relative to a background level of 126 dB (rms).

Anticipated Extent of Underwater Project Noise

Pile-Driving—There are several sources of measurement data for piles that have been driven with a vibratory hammer. Illingworth and Rodkin (2008) collected data at several different projects with pile sizes ranging from 33 to 183 cm (13 to 72 in). The most representative data from these measurements would be from the Ten Mile River Bridge Replacement Project and the Port of Anchorage Marine Terminal Redevelopment Project. At Ten Mile, 96 cm (30 in) CISS piles were measured in cofferdams filled with water in the Ten Mile River at 33 ft (m) and 330 ft (m) from the piles. The sound level in the water channel ranged from less than 150 to 166 dB (rms). Levels generally increase gradually with increasing pile size. These sound levels are therefore considered a conservative (credible worst case) estimate of the expected levels given that the size of the piles proposed for this project are smaller in diameter (45.7 cm or 18 in) than the piles measured at Ten Mile.

Illingworth and Rodkin (2008) gathered data at the Port of Anchorage (POA) during the vibratory driving of steel H piles. These data, and data gathered by others, were used as the basis for the Environmental Assessment that was prepared by NMFS for the issuance of an IHA at the POA. These data were summarized in the POA IHA. The POA IHA concluded that average sound levels of vibratory pile-driving sounds would be approximately 162 dB re 1 µPa at a distance of 20 m (65.6 ft). Furthermore, for vibratory pile-driving, the 120 dB level would be exceeded out to about 800.1 m (2,625 ft) from the vibratory hammer.

A selection of additional projects using vibratory hammers was made from the "Compendium of Pile-Driving Sound Data" (Illingworth and Rodkin, 2007). This includes all projects in the compendium that used a vibratory hammer to drive steel pipe piles or Hpiles. Data from these projects, and the two projects named above are summarized in Table 2 of the IHA application and this document.

TABLE 2—SOUND LEVEL DATA

Project	Distance (m and ft)	Pile type	Water depth	dB re 1 μPa (rms)
10 Mile	10 m (33 ft) 100.6 m (330 ft)	76.2 cm (30 in) steel pipe		Less than 150.
Port of Anchorage	20.1 m (66 ft)	H-pile	Not stated	162.

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Project	Distance (m and ft)	Pile type	Water depth	dB re 1 μPa (rms)
San Rafael Canal	10 m (33 ft)	25.4 cm (10 in) H-pile 33 cm (13 in) steel pipe	4.9 m (16 ft)	137. 154 to 156. 167 to 180. 160.
Crossing. Stockton Wastewater Crossing. San Rafael Sea Wall San Rafael Sea Wall	20.1 (66 ft)	, , , , ,	Not stated	147.

Source: Illingworth and Rodkin (2007, 2008).

Based on these data, the results for 76.2 cm to 0.9 m (30 in to 3 ft) steel pipe driven in water would appear to constitute a conservative representation of the potential effects of driving 45.7 cm (18 in) steel pipe at the Trinidad Pier. Those indicate an rms level of 166 to 175 dB at 10 m (33 ft) from the pile. Calculations in this analysis assume the high end of this range. For this analysis, close to the pile, it is assumed that there would be a 4.5 dB (rms) decrease for every doubling of the distance (practical spreading loss model). Isopleth distances based on this inference are presented in Table 3 of Trinidad Rancheria's IHA application and this document. Figure 1 of the IHA application shows both the area of effect

and the relative exposure risk based on the presence of shielding features (headlands and sea stacks). Under no circumstances would the Level A harassment (injury) threshold for cetaceans or pinnipeds be exceeded, but the specified activities would likely exceed the Level B harassment threshold, which also corresponds to background sound level in the area, throughout Trinidad Harbor. Shielding by headlands flanking the harbor would, however, prevent acoustic impacts to waters outside the harbor that are not on a line-of-sight to the sound source. This effect is shown in Figure 1 of the IHA application.

Noise Levels from Augering—An auger is a device used for moving

material or liquid by means of a rotating helical shaft into the earth. An attempt was made to measure the noise from augering out the 76.2 cm (30 in) piles at the Ten Mile Bridge Replacement Project. The levels were below the peak director of the equipment, 160 dB peak, and so measurements were stopped. Augering is expected to generate noise levels at or below the lower end of this range (Illingworth and Rodkin, 2008). Using the uniform "practical spreading model" transmission loss rate of 4.5 dB (rms) per doubling of distance, background sound levels would exceed the Level B harassment threshold at distances of less than 2.4 km (1.5 mi) (see Table 4 and Table 3 of the IHA application).

TABLE 3—PREDICTED DISTANCES TO UNDERWATER AND IN-AIR ACOUSTIC THRESHOLD LEVELS FOR THE TRINIDAD PIER RECONSTRUCTION PROJECT

	Distance from activity to isopleths						
Construction activity	190 dB (rms)	180 dB (rms)	160 dB (rms)	126 dB (rms)	90 dB in-air for harbor seals	100 dB in-air for all other pinnipeds	
45.7 cm (18 in) Pile Vibratory Installation.	0.9 m (3 ft)	4.9 m (16 ft)	101.5 m (333 ft)	23.3 km (14.5 mi).	26.5 m (87 ft)	10.5 m (34.5 ft).	
Augering	0 m (0 ft)	0.3 m (1 ft)	10.1 m (33 ft)	2.4 km (1.5 mi)	18.3 m (60 ft)	7.3 m (24 ft).	
Wood Pile Removal	0 m (0 ft)	0.9 m (3 ft)	21.6 m (71 ft)	5 km (3.1 mi)	26.5 m (87 ft)	10.5 m (34.5 ft).	

Noise Levels from Removal of Wood Piles—Removal of the existing wood piles would be accomplished with the use of a vibratory hammer. Typically the noise levels for installing and removing a pile are approximately the same when a vibratory hammer is used. The noise generated by installing wood piles is generally lower than steel shell piles. Illingworth and Rodkin (2007, 2008) have had only one opportunity to measure the installation of woodpiles, and this was with a 1,360.8 kg (3,000 lb) impact hammer. The levels measured at

a distance of 10 m (32.8 ft) were as follows: 172 to 182 dB peak, 163 to 168 dB (rms). For a comparable CISS pile, using a 1,360.8 kg (3,000 lb) drop hammer, the levels measured were 188 to 192 dB peak, 172 to 177 dB (rms). The noise generated during the installation of the wood pile was approximately 10 dB lower than the CISS piles. Following this logic, the sound produced when removing the wood piles would be about 10 dB lower than when installing the CISS piles.

Levels of 180 dB (rms) and 190 dB (rms) are expected to occur in the water at very small distances as a result of pile removal (see Table 3 in this document). Peak sound pressures would not be expected to exceed 190 dB in water. The average sound level of vibratory woodpile removal would be approximately 152 dB (rms) at a distance of 20.1 m (66 ft). Using the uniform practical spreading loss model transmission loss rate of 4.5 dB (rms) per doubling of distance, the Level B harassment threshold distance would be

5 km (3.1 miles) (see Table 3 in the IHA application).

Potential for Biological Effects—Based on the foregoing analysis, the action could result in underwater acoustic effects to marine mammals. The injury thresholds for pinnipeds and cetaceans would not be attained, but the acoustic background level in the area, 126 dB (rms) would be attained during use of the vibratory pile driver (for wood piling removal and for CISS pile

placement), and during augering of the CISS pile placements. Effects distances for these activities are shown in Table 3 of the IHA application, and range up to 23.3 km (14.5 mi). The duration of exposure varies between activities.

TABLE 4—Noise Generating Activities

Construction activity	Number of piles	Time per pile	Duration of activity	Number of days when activity occurs	126 dB (rms) isopleth distance
45.7 cm (18 in) pile vibratory installation	115	0:15	28:45	58	23.3 km (14.5 mi).
Augering Wood pile removal	115 205	1:00 0:40	115:00 136:40		2.4 km (1.5 mi). 5 km (3.1 mi).

Pile installation would occur for approximately 30 min (up to two piles would be driven each day at up to 15 min drive time per pile) on each of 58 days (see Table 4 in the IHA application and this document), resulting in sound levels exceeding the behavioral effect threshold within 23.3 km (14.5 mi) of the activity.

Pile removal is a quieter activity performed for a longer time: Approximately 136:40 hours distributed evenly over 58 days, or about 2.5 hours on each day when the activity occurs. Sound levels would exceed the behavioral effect threshold within 5 km (3.1 mi) of the activity.

Augering, the least-noisy activity, is estimated to require 1 hour for each of 115 piles with activity occurring on each of 58 days evenly distributed during a 180-day period, or about 2 hours on each day when the activity occurs. Sound levels would exceed the behavioral effect threshold within 2.4 km (1.5 mi) of the activity.

These activities could be performed on the same day, but are expected to normally occur on consecutive days, with a cycle of pile removal-pile installation-augering-grouting occurring as each of 25 successive bents is placed.

As shown in Figures 1 and 2 of the IHA application, Trinidad Bay is protected from waves coming from the north and west, but open to coastline on the south. The coast extending to the south, and the rocky headland to the west of the pier, would shield waters from the acoustic effects described above except within the bay itself. These topographic considerations result in a situation such that underwater noise-generating activities would produce elevated underwater sound within most of the bay itself, but would have a minor effect on underwater sound levels outside the bay.

Seals outside of Trinidad Harbor and more than 1.6 to 3.2 km (1 to 2 mi)

offshore are likely already exposed to and habituated to loud machinery noise in the form of deep-draft vessel traffic along the coast; such vessels may produce noise levels on the order of 170 to 180 dB (rms) at 10 m and thus have areas of effect comparable to the 23.3 km (14.5 mi) radius of effect calculated for vibratory pile-driving noise. In this context, the 23.3 km (14.5 mi) radius of effect is likely unrealistic, just as it is likely unrealistic to think that these seals alter their behavior in response to the passage of a large vessel 23.3 km (14.5 mi) away. Behavioral considerations suggest that the seals would be able to determine that a noise source does not constitute a threat if it is more than a couple of miles away, and the sound levels involved are not high enough to result in injury (Level A harassment). Nonetheless, these data suggest that pile-driving may affect seal behavior throughout Trinidad harbor, i.e., within approximately 1.6 km (1 mi) of the activity. The nature of that effect is unpredictable, but logical responses on the part of the seals include tolerance (noise levels would not be loud enough to induce temporary threshold shift in harbor seals), or avoidance by using haul-outs or by foraging outside the harbor.

With regard to noises other than piledriving (i.e., pile removal, augering, and construction noise), estimation of biological effects depends on the characteristics of the noise and the behavior of the seals. The noise is qualitatively similar to that produced by the engines of fishing vessels or the operations of winches, noises to which the seals are habituated and which they in fact regard as an acoustic indicator signaling good foraging opportunities near the pier. There are no data about the magnitude of this acoustic indicator, but the noise produced by the fishing vessel engines entering or leaving the

harbor is likely not less than 150 dB (rms) at 10 m, though it will be quieter as vessels "throttle back" near the pier. This level (150 dB [rms]) is the same as the estimated noise level from augering, and 15 dB less than the estimated noise level from pile removal. In this context, behavioral responses due to augering are not likely, except that initially seals might approach the work area in anticipation of foraging opportunities. Such behavior would likely cease once the seals learned the difference between the sound auger and that of a fishing vessel. Behavioral responses in the form of avoidance due to pile removal might occur within a distance of about 50 m (164 ft) from the activity, but the area so affected constitutes a small fraction of Trinidad Harbor and has no haul-outs; thus very few seals would be expected to be affected.

In-Air Noise—The principal source of in-air noise would be the vibratory pile driver used to extract old wood piles and to place the new CISS piles. Laughlin (2010) has recently reported unweighted sound measurements from vibratory pile drivers used to place steel piles at two projects involving dock renovation for the Washington State Ferries. In both projects, noise levels were measured in terms of the 5 min average continuous sound level (Leq). Frequency-domain spectra for the maximum sound level (Lmax) were also measured. The Leq measurements in this case were equivalent to the unweighted rms sound level, measured over a 5 min period.

At the Wahkiakum County Ferry Terminal, one measurement station was used to take measurements of the vibratory placement (APE hammer) of one 45.7 cm (18 in) steel in-water pile, the same size that would be placed during the Trinidad Pier renovation. At the Keystone Ferry Dock renovation, four measurement stations were used to take measurements of the vibratory

placement (APE hammer) of one 76.2 cm (30 in) steel in-water pile. At both sites, piles were placed in alluvial sediments, whereas the Trinidad Pier piles would be placed in pre-bored holes in sandstone. Results from the Wahkiakum and Keystone piles (Laughlin, 2010) are shown in Table 5

of the IHA application. Based on these data (Laughlin, 2010), in-air noise production during piledriving at the Trinidad Pier will likely be between 87.5 and 96.5 dB re 20 µPa unweighted at 50 ft. For the purpose of the analysis presented below, it is assumed that in-air noise from vibratory pile-driving would produce 96 dB (rms) unweighted. This noise would be produced during both pile removal and pile placement activities. The augering equipment produces slightly less noise, 92 dB (rms) unweighted (WSDOT, 2006). All other power equipment that would be used as part of the action (e.g., trucks, pumps, compressors) produces at least 10 dB less noise and thus has much less potential to affect wildlife in the area.

In contrast, background noise levels near the Trinidad Pier are already elevated due to normal pier activities. Marine mammals at Trinidad Bay haulouts are presumably habituated to the daily coming and going of fishing and recreational vessels, and to existing activities at the pier such as operation of the hoists and the loading and unloading of commercial crab boats. These activities may occur at any time of the day and may produce noise levels up to approximately 82 to 86 dB (unweighted) at 15.2 m (50 ft) for periods of up to several hours at a time. Accordingly 82 dB (unweighted) is chosen as the background level for noise near the pier.

Effects on Pacific Harbor Seals—In-air sound attenuates at the rate of approximately 5 dB/km for a frequency of 1 kHz, air temperature of 10° C (50° F), and relative humidity of 80 percent (Kaye and Laby, 2010). These conditions approximate winter weather in Trinidad. Under these conditions, the noise of the vibratory pile-driver would attenuate to approximately 82 dB at approximately 2.8 km (1.7 mi) from the pier. Attenuation, which is proportional to frequency, would be reduced at lower frequencies, and would be much greater at higher frequencies. Attenuation would also be greater at locations where headlands or sea stacks interfere with sound transmission, as shown in Figure 1 of the IHA application. Accordingly, the sounds produced by pile extraction, augering, and pile replacement would exceed background levels within almost all of Trinidad Harbor.

Driving of CISS piles would occur for a total of approximately 0.5 hours per day on each of 58 days within a 180 day period (August 1 through January 31, 2010) (see Table 4 of the IHA application). Pile-driving would occur during daylight hours, at which time harbor seals would be periodically coming to or leaving from haul-outs, and possibly foraging within the radius of effect around the pile-driving activity. Harbor seals haul-out on rocks and at small beaches at many locations that are widely dispersed within Trinidad Bay; the closest such haul-out is 70 m (229.7 ft) from the pier, while the most distant is over 1 km (0.6 mi) away near the south end of Trinidad Bay.

Behavioral effects could result to all seals that were in the water within the area of effect during the portion of the day when piles were being driven (typically two piles per day). For instance, if seals spent 10 percent of the day in the water within the radius of effect, and assuming that the number of seals present that day was approximately 37 (as discussed above in the context of data presented by Goley et al. [2007]), then about 3.66 seals would be affected by each of two pile drives. Because the drives occurred during different parts of the day, different seals would likely be affected, resulting in a total impact on that day to seven or eight seals.

The 10 percent estimate given above for the time seals spend within the radius of effect is a representative figure for the purposes of illustration. There are no data available on relative seal use of the haul-outs in Trinidad Bay, versus their use of waters in Trinidad Bay. versus their use of waters or haul-outs elsewhere. The radius of effect is only a small fraction of Trinidad Bay, and only a fraction of the rocks that comprise the Indian Beach haul-out described in Goley et al. (2007) are within that radius of effect. However, it is known that during winter months (when the construction is scheduled to occur), seal use of the haul-outs in Trinidad Bay likely declines because the seals spend a larger fraction of their time at sea, foraging in offshore waters (Goley, 2007). Figure 1 of the IHA application shows that topographic shielding by headlands blocks a large area of offshore habitat from potential underwater construction noise effects.

Impacts attributable to pile removal would be similar to those of pile-driving, but pile removal would occur for a total of approximately 2.5 hours per day on each of 58 days (see Table 4 of the IHA application). Subject to the same assumptions as described above, but this time with the activity being

performed on an average of 3.5 piles per day, about 3.66 seals would be affected by each of 3.5 pile removal events for a total daily impact to 13 seals.

Impacts attributable to augering would also be similar, but augering would occur for a total of approximately 2 hours per day on each of 58 days. Subject to the same assumptions as described above, but this time with the activity being performed on an average of two piles per day, about seven or eight seals would be affected by each of two augering events for a total daily impact to seven or eight seals. These numbers would vary if more or fewer seals were present in the area of effect, and if seals spent more or less of their time in the water rather than on the haul-out.

Although harbor seals could also be affected by in-air noise and activity associated with construction at the pier, seals at Trinidad Bay haul-outs are presumably habituated to human activity to some extent due to the daily coming and going of fishing and recreational vessels, and to existing activities at the pier such as operation of the hoists and the loading and unloading of commercial crab boats. These activities may occur at any time of the day and may produce noise levels up to approximately 82 dB at 15.2 m (50 ft) for periods of up to several hours at a time. The operation of loud equipment, including the vibratory piledriving rig and the auger, are above and outside of the range of normal activity at the pier and have the potential to could cause seals to leave a haul-out in Trinidad Bay. This would constitute Level B harassment (behavioral). To date, such behavior by harbor seals has not been documented in Trinidad Bay in response to current levels of in-air noise and activity in the harbor, but does have the potential to occur. On the contrary, seals have been documented often approaching the pier during normal fishing boat activities in anticipation of feeding opportunities associated with the unloading of fish and shellfish. This circumstance suggests seal habituation to existing noise levels encountered near the pier.

Based on these examples it appears likely that few harbor seals at haul-outs would show a behavioral response to noise at the pier, particularly in view of their existing habituation to noise activities at the pier. The great majority of haul-out locations in Trinidad Bay are at least 304.8 m (1,000 ft) from the pier, but one minor haul-out is 70.1 m (230 ft) from the pier (Goley, pers. comm.). In view of the relatively large area that would be affected by elevated in-air noise, it appears probable that

some seals could show a behavioral response, despite their habituation to current levels of human-generated noise; incidental take by this mechanism may amount to an average of one seal harassed per day, when the activities of pile removal, augering, or pile placement are occurring (in addition to the seals harassed by underwater noise).

Harbor seal presence in the activity area is perennial, with daily presence of an average of approximately 37 seals at a nearby haul-out during the months when the activity would occur. The fraction of these seals that would be in the activity area is difficult to estimate. Traditionally the seals have regarded the pier as a prime foraging area due to the recreational fishing activity and the unloading of fishing boats that occur there. During the construction period, however, these activities would cease, and it is plausible that the seals would modify their foraging behavior accordingly. Based on the analysis in the IHA application and here in this notice, seals would be affected once per day on each of 116 days when piledriving or augering occurred, 13 seals would be affected per day on each of 58 days when pile removal occurred, and one seal would be affected by in-air sound on each of 164 days when pile removal, installation, or augering occurred. The potentially affected seals include adults of both sexes. Golev et al. (2007) states that the seals are yearround residents; that they are nonmigratory, dispersing from a centralized location to forage; and that they exhibit high site fidelity, utilizing one to two haul-out sites within their range and rarely traveling more than 25 to 50 km (15.5 to 31.1mi) from these haul-outs. The winter population of seals in Trinidad Bay seems to consist mostly of resident seals (Golev et al., 2007), so it is likely that most seals in the population would be affected more than once over the course of the construction period. It is therefore possible that some measure of adaptation or habituation would occur on the part of the seals, whereby they would tolerate elevated noise levels and/or utilize haul-outs relatively distant from construction activities. There are a large but inventoried number of haul-outs within Trinidad Bay, so such a strategy is possible, but it is difficult to predict whether the seals would show such a response.

Project scheduling avoids sensitive life history phases of harbor seals. Project activities producing underwater noise would commence in August. This is after the end of the annual molt, which normally occurs in June and July.

Project activities producing underwater noise are scheduled to terminate at the end of January, which is a full month before female seals begin to seek sites suitable for pupping.

Effects on California Sea Lions— California sea lions, although abundant in northern California waters, have seldom been recorded in Trinidad Bay (i.e, there is little published information or data with which to determine how they use Trinidad Bay). The low abundance in the area may be due to the presence of a large and active harbor seal population there, which likely competes with the sea lions for foraging resources. Any sea lions that did visit the action area during construction activities would be subject to the same type of impacts described above for harbor seals. Observed use of the area by California sea lions amounts to less than one percent of the number of harbor seals (Goley, pers. comm.); assuming a one percent utilization rate, total impacts to California sea lions amount to one percent of the effects of harbor seals, described above.

There is a possibility of behavioral effects related to project acoustic impacts, in the event of California sea lion presence in the activity area. Based on an interview with Dr. Dawn Goley (pers. comm.), California sea lions have been seen in the activity area, albeit infrequently, and there are no quantitative estimates of the frequency of their occurrence. Assuming that they are present with one percent of the frequency of harbor seals, it is possible California sea lions might be subject to behavioral harassment up to one percent of the levels described for harbor seals. The potentially affected sea lions include adults of both sexes.

Effects on Eastern Pacific Gray Whales-Goley et al. (2007) list the sighting rates for gray whales during eight years of monthly observations at Trinidad Bay. Sighting rates varied from 0 to 1.38 whales per hour of observation time. The average detection rate during the period when pile removal and placement would occur, in the months from August through January, was 0.21 whales per hour of observation time. In contrast, the average detection rate in the months of February through July was 0.48 whales per hour. The majority of these detections were within 2 km (1.2 mi) of the shoreline (Goley et al., 2007). These data suggest that the effect rate for gray whales would be approximately 0.21 whales per hour. Since vibratory pile-driving of CISS piles would occur for a total of approximately 28.75 hours (115 piles at 15 min drive time apiece; see Table 4 of the IHA application), vibratory piledriving activities would be expected to affect $0.21 \times 28.75 = 6.04$ or approximately six gray whales.

Acoustic effects would be expected to result from pile removal, which is a quieter activity performed for a longer time. Approximately 205 piles will be removed, with 40 min of vibratory pile driver noise for each pile, resulting in a total exposure of 136.67 hours (see Table 4 of the IHA application). Thus this activity would be expected to affect $6.04 \times 136.7/28.75 = 28.7$ or approximately 29 gray whales.

Acoustic effects would also be expected to result from pile augering, which is an even quieter activity. There will be 115 holes augered, with one hour of noise for each hole, resulting in a total exposure of 115 hours (see Table 4 of the IHA application). Thus this activity would be expected to affect 6.04 × 115/28.75 = 24.2 or approximately 24 gray whales. No mechanism other than underwater sound generation is expected to affect gray whales in the action area.

The most likely number of gray whales that would be taken is 59. Based on the low detection rate of 0.21 whales per hour (Goley et al., 2007), most of these take events would likely be independent, whales and would likely occur with adults of both sexes.

The potential effects to marine mammals described in this section of the document do not take into consideration the required monitoring and mitigation measures described later in this document (see the "Mitigation" and "Monitoring and Reporting" sections) which, as noted are designed to effect the least practicable impact on affected marine mammal species or stocks.

Possible Effects of Activities on Marine Mammal Habitat

The anticipated adverse impacts upon habitat consist of temporary changes to water quality and the acoustic environment, as detailed in the IHA application and Appendix B of the BA. These changes are minor, temporary, and limited in duration to the period of construction. No restoration is needed because, as detailed in Section 6.1.6 of the BA, the project would have a net beneficial effect on habitat in the activity area by removing an existing source of stormwater discharge and creosote-treated wood. No aspect of the project is anticipated to have any permanent effect on the location of seal and sea lion haul-outs in the area, and no permanent change in seal or sea lion use of haul-outs and related habitat features is anticipated to occur as a result of the project.

The temporary impacts on water quality and acoustic environment and the beneficial long-term effects are not expected to have any permanent effects on the populations of marine mammals occurring in Trinidad Bay. The area of habitat affected is small and the effects are temporary, thus there is no reason to expect any significant reduction in habitat available for foraging and other habitat uses for marine mammals.

Although artificial, the pier functions as a habitat feature. There would probably be a temporary cessation of seal activity in the immediate vicinity of the pier. It is not clear at this time how this would affect seal behavior. The fishing vessels that normally use the pier during the months when construction would occur have two options; they can either transfer their cargoes to smaller vessels capable of landing at the existing boat ramp (which is on the east side of the rocky headland just east of the pier, a few hundred feet away), or they can make temporary use of pier facilities approximately 32.2 km (20 mi) to the south, in Eureka. Vessels opting to travel to Eureka would likely represent a lost foraging opportunity for seals using Trinidad Bay.

NMFS anticipates that the action will result in no impacts to marine mammal habitat beyond rendering the areas immediately around the Trinidad Pier less desirable during pile-driving and pier renovation operations as the impacts will be localized. Impacts to marine mammal, invertebrate, and fish species are not expected to be detrimental.

Mitigation

In order to issue an Incidental Take Authorization under section 101(a)(5)(D) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to such activity, and other means of effecting the least practicable impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stock for taking for certain subsistence uses.

The activity planned by the applicant includes a variety of measures calculated to minimize potential impacts on marine mammals, including:

- Timing the activity to occur during seasonal lows in marine mammal use of the activity area;
- Limiting activity to the hours of daylight (approximately 7 a.m. to 7 p.m., with noise generating activities only authorized from one-half hour after sunrise until one-half hour before sunset);

- Use of a vibratory hammer to minimalize the noise of piling and removal and installation; and
- Use of trained PSOs to detect, document, and minimize impacts (i.e., start-up procedures [short periods of driver use with intervening pauses of comparable duration, performed two or three times, before beginning continuous driver use], possible shutdown of noise-generating operations [turning off the vibratory driver or auger so that in-air and/or underwater sounds associated with construction no longer exceed levels that have the potential to injure marine mammals]) to marine mammals, as detailed in the Marine Mammal Monitoring Plan (see Appendix C of the IHA application) and in paragraphs (1)–(8) of the monitoring and reporting provisions found in the "Monitoring and Reporting" section later in this document.

Timing Constraints for Underwater Noise

To minimize noise impacts on marine mammals and fish, underwater construction activities shall be limited to the period when the species of concern will be least likely to be in the project area. The construction window for underwater construction activities shall be August 1, 2011 to May 1, 2012. Avoiding periods when marine mammals are in the action area is another mitigation measure to protect marine mammals from pile-driving and renovation operations.

Implementation Assurance: Provide NMFS advance notification of the start dates and end dates of underwater construction activities.

More information regarding the Trinidad Rancheria's monitoring and mitigation measures, as well as research conducted, (i.e., noise study for potential impacts to marine mammals and fish; potential impacts to historical, archeological and human remains; potential impacts to water quality during reconstruction activities; potential impacts to substrate and water quality during tremie concrete seal pouring; and potential temporary impacts to public access to the pier during construction operations) for the Trinidad Pier Reconstruction Project can be found in Appendix B of the IHA application.

NMFS has carefully evaluated the applicant's mitigation measures and has considered a range of other measures in the context of ensuring that NMFS prescribes the means of effecting the least practicable impact on the affected marine mammal species and stocks and their habitat. NMFS's evaluation of potential measures included

consideration of the following factors in relation in one another:

- The manner in which, and the degree to which, the successful implementation of the measure is expected to minimize adverse impacts to marine mammals;
- The proven or likely efficacy of the specific measure to minimize adverse impacts as planned; and

• The practicality of the measure for applicant implementation.

Based on NMFS's evaluation of the applicant's measures, as well as other measures considered by NMFS or recommended by the public, NMFS has determined that the mitigation measures provide the means of effecting the least practicable impact on marine mammal species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

Monitoring and Reporting

In order to issue an ITA for an activity, section 101(a)(5)(D) of the MMPA states that NMFS must set forth "requirements pertaining to the monitoring and reporting of such taking." The MMPA implementing regulations at 50 CFR 216.104 (a)(13) indicate that requests for IHAs must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present in the action area.

Consistent with NMFS procedures, the following marine mammal monitoring and reporting shall be performed for the action:

(1) A NMFS-approved or -qualified Protected Species Observer (PSO) shall attend the project site one hour prior until one hour after construction activities cease each day throughout the construction window.

(2) The PSO shall be approved by NMFS prior to reconstruction operations.

(3) The PSO shall search for marine mammals within behavioral harassment threshold areas as identified within the acoustic effect thresholds in Section 6 of Trinidad Rancheria's IHA application. The area observed shall depend upon the type of underwater sound being produced (e.g., pile extraction, augering, or pile installation). No practicable technology exists to allow for monitoring beyond the visual range at which seals and sea lions can be detected using binoculars (approximately 0.8 km [0.5 mi]), depending on visibility and sea state.

The estimated maximum distance at which PSOs will be able to visually detect gray whales is about 1.6 km (1 mi).

(4) The PSO shall be present on the pier during pile-extraction, pile-driving and augering to observe for the presence of marine mammals in the vicinity of the specified activity. All such activity will occur during daylight hours (i.e., 30 min after sunrise and 30 min before sunset). If inclement weather limits visibility within the area of effect, the PSO will perform visual scans to the extent conditions allow, but activity will be stopped at any time that the observer cannot clearly see the water surface out to a distance of at least 30.5 m (100 ft) from the activity. In conditions of good visibility, PSOs will likely be able to detect pinnipeds out to a range of approximately 0.8 km (0.5 mi) from the pier, and to detect whales out to a range of approximately 1.6 km (1.0 mi) from the pier. Animals at greater distances likely would not be detected.

(5) Visibility is a limiting factor during much of the winter in Trinidad Bay. As discussed in the BA, shutdowns during times of fog could well result in prolonging the construction period into the beginning of the pupping season for harbor seals. The estimated distances for Level A harassment do not exceed 4.9 m (16 ft) from the activity. The activities will shut-down if visibility is so poor that seals cannot be detected when they are at risk of injury (i.e., if visibility precludes observation of the area within 30.5 m [100 ft] of the pier). During the 30 min prior to the start of noisegenerating activities and the quiet periods between individual noisegenerating activities, auditory monitoring may be highly effective for detecting gray whales, but probably less effective for harbor seals and California sea lions.

(6) The PSO will also perform auditory monitoring, and will report any auditory evidence of marine mammal activity. Auditory detection will be based only on the use of the human ear (without technological assistance). Auditory monitoring is effective for detecting the presence of gray whales in close proximity to the action area (e.g., blows, splashes, etc.). Close proximity varied depending on how loud the sound produced by the gray whale is, and on the in-air transmission loss rate. Auditory monitoring prior to the start of the noise-generating activity occurs in the absence of masking noise and thus helps to ensure that the auditory monitoring is effective. Auditory monitoring is only likely more effective than visual monitoring under conditions of low visibility (i.e., fog) since work would only occur during daylight hours, at which times the transmission loss rate is very low. Note that there will also be many quiet periods between individual noisy activities, during which whales can be detected. Most of the work day is spent in preparing for a few noisy intervals. Auditory monitoring is less effective for detecting the presence of pinnipeds.

(7) The PSO will scan the area of effect for at least 30 min continuously prior to any episode of pile-driving to determine whether marine mammals are present, and will continue to scan the area during the period of pile-driving. The scan will continue for at least 30 min after each in-water work episode has ceased. The scan will involve two visual "sweeps" of the area using the naked eye and binoculars. Typically, the sweep would be conducted slowly as follows: one sweep going from left to right and the other returning from right to left. The length of time it takes to do the sweep will depend on the amount of area that needs to be covered, weather conditions, and the time it takes the

monitor to thoroughly survey the area. (8) Pile removal, augering, and pile placement activities will be shut-down if any cetacean or pinniped is about to enter or within the EZ determined by the estimated Level A harassment thresholds (see Table 3 for estimated distances [above]). Since the activities would produce sound levels that have the unlikely potential to result in Level A harassment (due to the very small radii of effect), a measure such as a shutdown may be unnecessary, but it would be appropriate for the Trinidad Rancheria to shut-down and consult with NMFS if measurements indicate that any activities attain sound levels that reach the Level A harassment threshold. If any other marine mammals are observed within the area of effect, pile-driving will not commence. If a marine mammal swims into the area of effect during pile-driving, the PSO will identify the animal and, if it is not a harbor seal, will notify the Project Engineer who will notify the Contractor, and pile-driving will stop (i.e., shutdown). If the animal has been observed to leave the area of effect, or 15 min for pinnipeds and 30 min for cetaceans have passed since the last observation of the animal, pile-driving will proceed. Visual observation of the area of effect is limited to the area that can be practicably observable for animals to be detected, which is approximately 0.8 km (0.5 mi) for pinnipeds and 1.6 km (1 mi) for gray whales.

(9) Whenever a construction halt is called due to marine mammals presence

in the area, the Project Engineer (or their representative) shall immediately notify the designated NMFS representative.

(10) If marine mammals are sighted by the PSO within the Level A and/or Level B harassment acoustic thresholds areas, the PSO shall record the number of marine mammals within the area of effect and the duration of their presence while the noise-generating activity is occurring. The PSO will also note whether the marine mammals appeared to respond to the noise and if so, the nature of that response. The PSO shall record the following information: date and time of initial sighting, tidal stage, weather, conditions, Beaufort sea state, species, behavior (activity, group cohesiveness, direction and speed of travel, etc.), number, group composition, distance to sound source, number of animals impacted, construction activities occurring at time of sighting, and monitoring and mitigation measures implemented (or not implemented). The observations will be reported to NMFS in a letter report to be submitted on each Monday, describing the previous week's observations.

(11) A final report will be submitted summarizing all in-water construction activities and marine mammal monitoring during the time of the authorization, and any long term impacts from the project.

A written log of dates and times of monitoring activity will be kept. The log shall report the following information:

- Time of observer arrival on site;
- Time of the commencement of underwater noise generating activities, and description of the activities (*e.g.*, pile removal, augering, or pile installation):
- Distances to all marine mammals relative to the sound source;
- For harbor seal observations, notes on seal behavior during noise-generating activity, as described above, and on the number and distribution of seals observed in the project vicinity;
- For observations of all marine mammals other than harbor seals, the time and duration of each animal's presence in the project vicinity; the number of animals observed; the behavior of each animal, including any response to noise-generating activities; whether activities were halted in response to the animal's presence; and whether, and if so, the time of NMFS notification;
- Time of the cessation of underwater noise generating activities; and
- Time of observer departure from site. All monitoring data collected during construction will be included in the biological monitoring notes to be

submitted weekly be electronic mail. Monthly summary reports will be submitted to NMFS. A report summarizing the construction monitoring and any general trends observed will also be submitted to NMFS within 90 days after monitoring has ended during the period of pier construction.

Underwater Noise Monitoring

Underwater noise monitoring and reporting shall be performed consistent with conditions of Coastal Development Permit 1–07–046. Those conditions are here summarized:

Prior to commencement of demolition and construction authorized by coastal development permit No. 1–07–046, the applicant shall submit a Hydroacoustic Monitoring Plan, containing all supporting information and analysis deemed necessary by the Executive Director for the Executive Director's review and approval. Prior to submitting the plan, to the Executive Director, the applicant shall also submit copies of the Plan to the reviewing marine biologists of the California Department of Fish & Game and the NMFS for their review and consideration.

At a minimum, the Plan shall:

- (1) Establish the field locations of hydroacoustic monitoring stations that will be used to document the extent of the hydroacoustic hazard footprint during vibratory extrication or placement of piles or rotary augering activities, and provisions to adjust the location of the acoustic monitoring stations based on data acquired during monitoring, to ensure that the sound pressure field is adequately characterized;
- (2) Describe the method of hydroacoustic monitoring necessary to assess the actual conformance of the vibratory extrication or placement of piles or rotary augering with the dual metric exposure criteria in the vicinity of the vibratory extrication or placement of piles or rotary augering locations on a real-time basis, including relevant details such as the number, location, distances, and depths of hydrophones and associated monitoring equipment.
- (3) Include provisions to continuously record noise generated by the vibratory extrication or placement of piles or rotary augering in a manner that enables continuous and peak sound pressure and other measures of sound energy per strike, or other information required by the Executive Director in the consultation with marine biologists of the California Department of Fish & Game and NMFS, as well as provisions to supply all monitoring data that is recorded, regardless of whether the data

is deemed "representative" or "valid" by the monitor (accompanying estimates of data significance, confounding factors, etc. may be supplied by the acoustician where deemed applicable). The permit also specifies reporting protocols, to be developed in cooperation with and approved by representatives of the California Coastal Commission, the California Department of Fish & Game, and NMFS.

The Trinidad Rancheria would notify NMFS Headquarters and the NMFS Southwest Regional Office prior to initiation of the pier reconstruction activities. A draft final report must be submitted to NMFS within 90 days after the conclusion of the Trinidad Pier Reconstruction Project. The report would include a summary of the information gathered pursuant to the monitoring requirements set forth in the IHA, including dates and times of operations, and all marine mammal sightings (dates, times, locations, species, behavioral observations [activity, group cohesiveness, direction and speed of travel, etc.], tidal stage, weather conditions, sea state, activities, associated pier reconstruction activities). A final report must be submitted to the Regional Administrator within 30 days after receiving comments from NMFS on the draft final report. If no comments are received from NMFS, the draft final report would be considered to be the final report.

In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a manner prohibited by this Authorization, such as an injury (Level A harassment), serious injury or mortality, Trinidad Rancheria shall immediately cease the specified activities and immediately report the incident to the Chief of the Permits, Conservation, and Education Division, Office of Protected Resources, NMFS, at 301-427-8401 and/or by email to Michael.Payne@noaa.gov and Howard.Goldstein@noaa.gov and the Southwest Regional Stranding Coordinators (Joe.Cordaro@noaa.gov and Sarah. Wilkin@noaa.gov). The report must include the following information:

- Time, date, and location (latitude/ longitude) of the incident;
 - The type of activity involved;
- Description of the circumstances during and leading up to the incident;
- Status of all sound source use in the 24 hours preceding the incident; water depth; environmental conditions (e.g., wind speed and direction, Beaufort sea state, cloud cover, and visibility);
- Description of marine mammal observations in the 24 hours preceding the incident; species identification or description of the animal(s) involved;

• The fate of the animal(s); and photographs or video footage of the animal (if equipment is available).

Activities shall not resume until NMFS is able to review the circumstances of the prohibited take. NMFS shall work with Trinidad Rancheria to determine what is necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. Trinidad Rancheria may not resume their activities until notified by NMFS via letter, e-mail, or telephone.

In the event that Trinidad Rancheria discovers an injured or dead marine mammal, and the lead PSO determines that the cause of the injury or death is unknown and the death is relatively recent (i.e., in less than a moderate state of decomposition as described in the next paragraph), Trinidad Rancheria will immediately report the incident to the Chief of the Permits Conservation, and Education Division, Office of Protected Resources, NMFS, at 301-427-8401, and/or by e-mail to Michael.Payne@noaa.gov and Howard.Goldstein@noaa.gov, and the NMFS Southwest Regional Office (562– 980-4017) and/or by e-mail to the Southwest Regional Stranding Coordinators (Joe.Cordaro@noaa.gov and Sarah. Wilkin@noaa.gov). The report must include the same information identified above. Activities may continue while NMFS reviews the circumstances of the incident. NMFS will work with Trinidad Rancheria to determine whether modifications in the activities are appropriate.

In the event that Trinidad Rancheria discovers an injured or dead marine mammal, and the lead PSO determines that the injury or death is not associated with or related to the activities authorized (e.g., previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), Trinidad Rancheria shall report the incident to the Chief of the Permits, Conservation, and Education Division, Office of Protected Resources, NMFS, at 301–427–8401, and/or by email to Michael.Payne@noaa.gov and Howard.Goldstein@noaa.gov, and the NMFS Southwest Regional Office (562-980–4017) and/or by e-mail to the Southwest Regional Stranding Coordinators (Joe.Cordaro@noaa.gov and Sarah.Wilkin@noaa.gov), within 24 hours of the discovery. Trinidad Rancheria shall provide photographs or video footage (if available) or other documentation of the stranded animal sighting to NMFS and the Marine Mammal Stranding Network.

Estimated Take by Incidental 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].

Based on NMFS's assessment of the potential effects of the specified activities on marine mammals likely to occur within the action area, NMFS has determined that incidental harassment of Pacific harbor seals, California sea lions, and Eastern Pacific gray whales is anticipated for the following reasons:

(1) Surveys have demonstrated that harbor seals are almost always present within the area that would be affected by underwater sound. Thus, it is not possible to avoid affecting harbor seals at an exposure level below the Level B harassment threshold. Potential effects to harbor seals have been minimized by constructing during a period when sensitive life history stages (pupping and molting) do not occur, and by using

construction methods that generate the lowest practicable levels of underwater sound.

- (2) California sea lions are found among the harbor seals, at about one percent of the harbor seal abundance; thus there is a risk of incidentally affecting California sea lions at the same times and by the same mechanisms at an exposure level above the Level B harassment threshold that harbor seals are affected.
- (3) Gray whales have a high likelihood of occurring in Trinidad Bay during the construction period. They may not be detected by PSOs if they occur near the outer limits of the area of the Level B harassment impact zone.
- (4) The area has a high incidence of harbor fog, which complicates successful detection of animals when they enter waters where they may be exposed to sound levels in excess of the Level B harassment threshold. Dense fog is a common occurrence in this area in all seasons of the year. In 2008, for instance, the NOAA weather station in nearby Eureka reported 63 days of fog with visibility less than 0.4 km (0.25 mi), and 176 cloudy days. Local anecdotal reports indicate that the incidence of fog is much higher on the harbor waters than on the adjacent uplands. Attempting to only perform

underwater sound generating activities during periods of high visibility is therefore impracticable, as it would greatly prolong the time required for construction. For this reason it is possible that marine mammals may enter waters where they may be exposed to sound levels in excess of the Level B harassment threshold without being detected by PSOs. This is why the Marine Mammal Monitoring Plan (see Appendix C of the IHA application) provides for work stoppage when visibility is less than 30.5 m (100 ft), and provides for auditory detection (for both cetacean and pinniped monitoring) in conditions of reduced visibility and assumes that any auditory direction represents an animal that is within the area with sound levels in excess of the Level B harassment threshold.

Incidental take estimates are based on estimates of use of Trinidad Bay by various species as reported by Goley (2007 and pers. comm.). All reconstruction activities generating underwater sound during the project are expected to exceed background sound levels through Trinidad Bay. Table 5 in this document outlines the number of marine mammals that might be taken by Level B harassment from the various activities (both in-air and underwater estimates are provided for pinnipeds).

TABLE 5—SUMMARY OF THE NOISE PRODUCTION AND ANTICIPATED INCIDENTAL TAKE BY LEVEL B HARASSMENT FOR THE TRINIDAD RANCHERIA'S ACTION GENERATING IN-AIR AND UNDERWATER NOISE

Variable	Wood pile removal		Aug	ering	Vibratory pile installation		
Variable	Underwater noise	In-air noise	Underwater noise	In-air noise	Underwater noise	In-air noise	
Sound Amplitude	156.5 dB (rms) at 10.1 m (33 ft).	104 dB at 50 ft	150 dB (rms) at 15.2 m (50 ft).	94 dB at 50 ft	175 dB (rms) at 10.1 m (33 ft).	104 dB at 50 ft.	
Sound Duration Per Day (hours).	2.5		2		0.5.		
Activity Frequency Per Day.	2		3.5		2.		
Number of Days *	58		58		58.		
Total Hours of Exposure.	145		116		29.		
Incidental Take of Harbor Seals Per Day.	13	1	7 or 8	1	7 or 8	1.	
Incidental Take of Harbor Seals Total.	754	58	435	58	435	58.	
Incidental Take of California Sea Lions Total.	7.5	0.6	4.4	0.6	4.4	0.6.	
Incidental Take of Gray Whales.	28.7	0	28.7	0	6.04	0.	

Note: * No two activities would be performed on any given day.

Encouraging and Coordinating Research

Existing knowledge gaps regarding the Trinidad Bay harbor seals were identified in discussions with Dr. Dawn Goley, professor, HSU. Dr. Goley noted that the timing and movements of the Trinidad Bay harbor seals are not well understood, and could be better understood by radio tracking studies of a representative group of seals. Dr. Goley also noted the uncertain relationship between Trinidad Bay and Patrick's Point seals, and noted that the radio tracking study might help to elucidate that relationship.

Negligible Impact and Small Numbers Analysis and Determination

NMFS has defined "negligible impact" in 50 CFR 216.103 as "* * an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to adversely affect the species or stock through effects on annual rates of recruitment or survival." In making a negligible impact determination, NMFS considers a variety of factors, including but not limited to:

(1) The number of anticipated injuries, serious injuries, or mortalities;

(2) The number, nature, intensity, and duration of Level B harassment (all relatively limited);

(3) The context in which the takes occur (*i.e.*, impacts to areas of significance, impacts to local populations, and cumulative impacts when taking into account successive/contemporaneous actions when added to baseline data):

(4) The status of stock or species of marine mammals (*i.e.*, depleted, not depleted, decreasing, increasing, stable, and impact relative to the size of the population);

(5) Impacts on habitat affecting rates of recruitment or survival; and

(6) The effectiveness of monitoring and mitigation measures (*i.e.*, the manner and degree in which the measure is likely to reduce adverse impacts to marine mammals, the likely effectiveness of the measures, and the practicability of implementation).

For reasons stated previously in this document, and in the proposed notice of the IHA (76 FR 28733, May 18, 2011), the specified activities associated with the Trinidad Pier Reconstruction Project are not likely to cause PTS, or other non-auditory injury, serious injury, or death because of:

(1) The likelihood that marine mammals are expected to move away from a noise source that is annoying prior to its becoming potentially injurious; (2) The potential for permanent hearing impairment is relatively low and would likely be avoided through the incorporation of the required monitoring and mitigation measures (described above):

(3) The fact that cetaceans would have to be closer than 0.9 m (3 ft), 0.3 m (1 ft), and 4.9 m (16 ft) and pinnipeds would have to be closer than 0 m (0 ft), 0 m (0ft), and 0.9 m (3 ft), during pileremoval, augering, and vibratory piledriving activities, respectively, to be exposed to levels of sound believed to have even a minimal chance of causing a permanent thresholds shift (PTS; *i.e.*, Level A harassment); and

(4) The likelihood that marine mammal detection ability by trained PSOs is high at close proximity to the pier

No injuries, serious injuries, or mortalities or alteration of reproductive behaviors are anticipated to occur as a result of Trinidad Rancheria's planned renovation operations, and none are authorized by NMFS. Only short-term, minor, behavioral disturbance is anticipated to occur due to the brief and sporadic duration of the renovation activities. Table 5 (above) in this document outlines the number of Level B harassment takes that are anticipated as a result of the activities. Project scheduling avoids sensitive life history phases for harbor seals. Project activities producing underwater noise would commence in August. This is after the end of the annual molt, which normally occurs in June and July. Project activities producing underwater noise are scheduled to terminate at the end of January, which is a full month before female seals commence to seek sites suitable for pupping. It is possible that severe winter storms or other unforeseen events could delay the conclusion of activities producing underwater noise, but the scheduled one month buffer between underwater construction and the start of puppingrelated activity provides assurance that a reasonable level of project delays could occur without adverse consequences for the harbor seals. Due to the nature, degree, and context of Level B (behavioral) harassment anticipated and described (see Potential Effects on Marine Mammals section above) in this notice, the activity is not expected to impact rates of recruitment or survival for any affected species or stock.

Many animals perform vital functions, such as feeding, resting, traveling, and socializing, on a diel cycle (*i.e.*, 24 hr cycle). Behavioral reactions to noise exposure (such as disruption of critical life functions, displacement, or

avoidance of important habitat) are more likely to be significant if they last more than one diel cycle or recur on subsequent days (Southall et al., 2007). While Trinidad Pier operations are anticipated to occur on consecutive days, the entire duration of the project resulting in incidental take of marine mammals is not expected to last more than six months. Of the three marine mammal species under NMFS jurisdiction that are known to or likely to occur in the study area, none are listed as threatened or endangered under the ESA or depleted under the MMPA. To protect these animals (and other marine mammals in the project area), Trinidad Rancheria must cease operations if animals enter designated zones. No injury, serious injury, or mortality is expected to occur and due to the nature, degree, and context of the Level B harassment anticipated, the specified activity is not expected to impact rates of recruitment or survival.

As mentioned previously, NMFS estimates that three species of marine mammals under its jurisdiction could be potentially affected by Level B harassment over the course of the IHA. For each species, these numbers are estimated to be small (i.e., 1,798 harbor seals [5.7 percent], 21 California sea lions [0.02 percent], and 65 gray whales [0.4 percent]), less than a few percent of any of the estimated populations sizes based on data in this notice, and has been mitigated to the lowest level practicable through the incorporation of the monitoring and mitigation measures mentioned previously in this document.

NMFS's practice has been to apply 120 dB re 1 µPa (rms) received level threshold for underwater non-impulse sound levels to determine whether take by Level B harassment occurs. Southall et al. (2007) provide a severity scale for ranking observed behavioral responses of both free-ranging marine mammals and laboratory subjects to various types of anthropogenic sound (see Table 4 in Southall et al. [2007]). Current NMFS practice, regarding exposure of marine mammals to high-level in-air sounds, as a threshold for potential Level B harassment, is at or above 90 dB re 20 μPa for harbor seals and at or above 100 dB re 20 μPa for all other pinniped species (Lawson et al., 2002; Southall et al., 2007). NMFS has not determined Level A harassment thresholds for marine mammals for in-air noise.

NMFS has determined, provided that the aforementioned mitigation and monitoring measures are implemented, that the impact of conducting the renovation operations on the Trinidad Pier in Trinidad Bay, August, 2011 through January, 2012, may result, at worst, in a temporary modification in behavior and/or low level physiological effects (Level B harassment) of small numbers of certain species of marine mammals. See Table 5 (above) for the authorized take numbers of cetaceans

and pinnipeds.

While behavioral modifications, including temporarily vacating the area during the renovation operations, may be made by these species to avoid the resultant in-air and/or underwater acoustic disturbance, the availability of alternate areas within these areas and the short and sporadic duration of the research activities, have led NMFS to determine that this action will have a negligible impact on the specified geographic region.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the mitigation and monitoring measures, NMFS finds that Trinidad Rancheria's planned renovation activities of the Trinidad Pier, will result in the incidental take of small numbers of marine mammals, by Level B harassment only, and that the total taking from the construction project will have a negligible impact on the affected species or stocks of marine mammals; and the impacts to affected species or stocks of marine mammals have been mitigated to the lowest level practicable.

Impact on Availability of Affected **Species for Taking for Subsistence Uses**

Section 101(a)(5)(D) also requires NMFS to determine that the authorization will not have an unmitigable adverse effect on the availability of marine mammal species or stocks for subsistence use. There are no relevant subsistence uses of marine mammals in the study area that implicate MMPA section 101(a)(5)(D).

Endangered Species Act (ESA)

On July 13, 2009, NMFS Southwest Regional Office (SWRO) received the U.S. Army Corps of Engineers (ACOE) July, 9, 2009, letter and Biological Assessment (BA), requesting initiation of informal consultation on the issuance of a Clean Water Act section 404 permit to the Trinidad Rancheria to allow inwater work associated with the proposed action. The BA and informal consultation request were submitted for compliance with Section 7(a)(2) of the ESA, as amended (16 U.S.C. 1531 et seq.), and its implementing regulations (50 CFR 402). On October 27, 2009, NMFS SWRO issued a Letter of Concurrence, concurring with the ACOE's determination that the proposed

action is not likely to adversely affect federally threatened Southern Oregon/ Northern California Coast (SONCC) coho salmon (Oncorhynchus kisutch), California Coastal (CC) Chinook salmon (Oncorhynchus tshawytscha), and Northern California (NC) steelhead (Oncorhynchus mykiss).

On November 30, 2009, the NMFS SWRO issued a separate letter assessing project effects relative to marine mammals protected under the Federal ESA. NMFS's letter concurred with the ACOE's determination that the proposed action may affect, but is not likely to adversely affect the Federally threatened Steller sea lion. The USFWS has informed the ACOE that a formal ESA section 7 consultation is not necessary for any of their jurisdictional species (i.e., no listed species are likely to be adversely affected).

National Environmental Policy Act (NEPA)

The ACOE, San Francisco District, has prepared a permit evaluation and decision document that constitutes an Environmental Assessment (EA), Statement of Findings, and review and compliance determination for the proposed action, which analyzed the project's purpose and need, alternatives, affected environment, and environmental effects for the action. NMFS has reviewed the ACOE EA for consistency with the regulations published by the Council of Environmental Quality (CEQ) and NOAA Administrative Order 216-6, **Environmental Review Procedures for** Implementing the National Environmental Policy Act, and conducted a separate NEPA analysis and prepared an "Environmental Assessment for Issuance of an Incidental Harassment Authorization for Cher-Ae Heights Indian Community of the Trinidad Rancheria's Trinidad Pier Reconstruction Project in Trinidad, California," which analyzes the project's purpose and need, alternatives, affected environment, and environmental effects for the action prior to making a determination on the issuance of the IHA. Based on the analysis in the EA and the underlying information in the record, including the application, proposed IHA, public comments and informal ESA section 7 consultation, NMFS has prepared and issued a Finding of No Significant Impact determining that preparation of an Environmental Impact Statement is not required.

Essential Fish Habitat (EFH)

The ACOE requested consultation on EFH, pursuant to the Magnuson-Stevens

Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Pub. L. 104-267. 16 U.S.C 1801 et seq.) and its implementing regulations 50 CFR 600.920(a). The ACOE determined that the proposed action would adversely affect EFH for species managed under the Pacific Coast Salmon, Pacific Coast Groundfish, and Coastal Pelagics Fishery Management Plans. NMFS SWRO determined that the proposed action would adversely affect EFH for species managed under the Pacific Coast Salmon, Pacific Coast Groundfish, and Coastal Pelagics Fishery Management Plans. Habitat will be lost during removal of wooden pilings; however, NMFS expected recolonization of the new pilings within a year, NMFS believes the proposed action has been designed to minimize and reduce the magnitude of potential effects during implementation of the proposed action. Therefore, NMFS provides no additional conservation recommendations. In addition, NMFS expects EFH will improve in the vicinity of the pier due to the following:

- (1) Removal and replacement of creosote-treated wooden piles with CISS concrete pilings;
- (2) A stormwater collection and treatment system where all stormwater will be collected and routed by gravity feed to an upland treatment cell that will provide detention, settling, and active filtering prior to complete infiltration:
- (3) Reduced artificial lighting effects; and
- (4) The HSU marine lab water intake associated with the pier will be fitted with NMFS-approved screens, minimizing the risk of entrainment of small prey fish species.

Authorization

NMFS has issued an IHA to the Trinidad Rancheria for the take, by Level B harassment, of small numbers of three species marine mammals incidental to specified activities related to renovation of the Trinidad Pier, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated.

Dated: July 29, 2011.

Helen M. Golde,

Deputy Director, Office of Protected Resources, National Marine Fisheries Service. [FR Doc. 2011-19809 Filed 8-3-11; 8:45 am]

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