**UNITED STATES DEPARTMENT OF COMMERCE**
**National Oceanic and Atmospheric Administration**
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

In response refer to:
2008/00878:MLD

NOV 30 2009

Lieutenant Colonel Laurence M. Farrell
Commander, San Francisco District
U.S. Army Corps of Engineers
1455 Market Street
San Francisco, California 94103-1398

Dear Colonel Farrell:

On July 13, 2009, NOAA's National Marine Fisheries Service (NMFS) received the U.S. Army Corps of Engineers (Corps) July 9, 2009, letter and Biological Assessment (BA), requesting initiation of informal consultation on the issuance of a permit (File Number 400318) to the Cher-Ae Heights Indian Community of the Trinidad Rancheria (Trinidad Rancheria), pursuant to section 7(a) (2) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*), and its implementing regulations (50 CFR 402). The permit would allow implementation of the Trinidad Rancheria Pier Reconstruction Project (Project). The Project will replace an existing wooden pier and pilings with a pier comprised of a pre-cast concrete deck and concrete pilings. The Project is located in Trinidad Bay in the City of Trinidad, California, Humboldt County. The Corps concluded that the project may affect, but is not likely to adversely affect the Steller sea lion (*Eumetopias jubatus*) and requests NMFS' concurrence with this determination.

This letter constitutes informal consultation for the federally listed threatened Steller sea lion (November 26, 1990, 55 FR 49204), and assesses Project effects relative to the ESA and Marine Mammal Protection Act (MMPA). A separate letter dated October 27, 2009, from our office to the Corps, completed consultation on Essential Fish Habitat, pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (Public Law 104-267, 16 U.S.C. 1801 *et seq.*) and its implementing regulations [50 CFR 600.920(a)] and served as consultation under the authority of and in accordance with provisions of the Fish and Wildlife Coordination Act of 1934. That letter concluded informal consultation under the ESA for the following federally threatened species: (1) Southern Oregon/Northern California Coast coho salmon (*Oncorhynchus kisutch*); (2) California Coastal chinook salmon (*O. tshawytscha*); and (3) Northern California steelhead (*O. mykiss*).

Trinidad Bay, a commercial port located between Humboldt Bay and Crescent City, contains numerous vessel moorings which include permanent commercial fishing vessel anchors as well

100 moorings that are placed for recreational vessel owners. The Trinidad Rancheria Pier, provides services for: (1) commercial fisherman, (2) recreational boaters, kayakers, and whale-watching vessels; and (3) education and research by housing the Humboldt State University Telonicher Marine Laboratory saltwater intake pipe and the California Center for Integrated Technology water quality data sonde. The Project area is comprised of the 0.31 acre Trinidad Rancheria Pier extending over marine habitats, and a staging area (a gravel parking lot located west of the pier), covering 0.53 acres of upland area.

The purpose of the Project is to demolish the existing wooden structure, construct a new pier, and upgrade pier utilities (water, sewer, electricity, telephone). The new pier will be: (1) constructed within the existing pier footprint; (2) 540 ft long, and (3) vary in width from 24 ft at the shore to 26 ft at the pier end. Prior to demolition, all utilities (water, electrical, power and phone lines) and structures (ladders hoists, sheds, and benches) will be removed.

A total of 205 wooden piles (12-inch diameter) will be removed using a vibratory hammer, and 115 cast-in-steel-shell (CISS) concrete piles (18-inch diameter) will be installed using a vibratory hammer. Installation of the CISS piles will require: (1) removal of 100 $yds^3$ of sediment by augering, (2) dewatering of the shells, and (3) pouring of concrete to fill the shells. Five CISS concrete piles will be separated at 5-foot intervals along each 25-foot long concrete bents. A total of 22 bents separated 25 feet apart shall be used. The decking of the new pier (approximately 13,500 $ft^2$) will be constructed of 20-foot-long concrete sections. Lighting will be embedded in the decking and railing of the pier to minimize light pollution from the pier. The pier decking will be sloped to the west in order to direct water runoff from the pier to the stormwater collection pipe, and conveyed by gravity to a new upland manhole and storm chamber containing treatment media. The new saltwater intake pumps for Humboldt State University will be screened in accordance with NMFS standards for such intakes.

**Project Timing and Sequencing**

The Project is expected to be completed within nine months, commencing on August 1, 2010, and terminating on May 1, 2011. Pile removal and installation will require approximately six months (August through January), and deck and utilities reconstruction will be completed in the remaining three months (February through April). Construction activities will occur five days per week between 7 a.m. and 7 p.m. Should severe weather conditions result in delays in the construction schedule, construction may occur seven days per week as needed to ensure completion by May 1, 2011.

Removal of the existing piles and installation of new piles will occur will occur successively, beginning from the north end (shore) to south end (water terminus) of the existing pier. Each day, one wooden pile will be removed, one new steel shell installed, and a concrete seal poured, with a total of six to eight hours required for the process. Each week, one row of five concrete piles and concrete bents will be constructed. Following the installation of two successive pile bents at 25 ft intervals, a new precast concrete deck section will be installed.

**Pier Decking and Piling Removal**
The pier decking will be removed prior to piling removal. Piles will be unseated from the sediment by slowly lifting up on the vibratory hammer with the aid of a 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. Each such extraction will require approximately 40 minutes of vibratory hammer operation. A marine mammal monitor will be present during construction operations, and if a Steller sea lion(s) enters the area, operations would cease and not resume until after the animal had departed the area.

**CISS Pile Installation**
Steel casings will be vibrated to a depth of approximately 2.5 ft above the top elevation of the proposed pile (25 to 35 ft below the mud line), and an auger drill will be used to excavate the sediment and rock from the steel shell. Concrete will be poured using a tremie to seal the area below the shell. A tremie, a steel pipe long enough to pass through the water to the required depth of placement, will be used to deliver concrete to seal the bottom 3 ft. of the hole below the bottom of the steel shell and above the ground. After the concrete seal has been poured, the water will be pumped out of the steel shells. Following poring of the concrete seal, pumping of water from steel casings will be required to maintain a dewatered work area. Following dewatering, steel rebar cage will be installed prior to pouring the remaining concrete to fill the shell.

## EFFECTS OF THE PROPOSED ACTION

Sounds introduced into the sea by man-made devices could have a deleterious effect on marine mammals by causing stress or injury, interfering with communication and predator/prey detection, and changing behavior. Acoustic exposure to loud sounds, may result in a temporary or permanent loss of hearing (termed a temporary (TTS) or permanent (PTS) threshold shift) depending upon the location of the marine mammal in relation to the source of the sound. NMFS is currently in the process of determining safety criteria (*i.e.,* guidelines) for marine species exposed to underwater sound. However, pending adoption of these guidelines we have preliminarily determined, based on past projects, consultations with experts, and published studies, that 180 dB re 1$\mu Pa_{RMS}$ (190 dB re 1$\mu Pa_{RMS}$ for pinnipeds) is the impulse sound pressure level that can be received by marine mammals without injury. Marine mammals have shown behavioral changes when exposed to impulse sound pressure levels of 160 dB re 1$\mu Pa_{RMS}$ and when exposed to continuous sound levels of 120 re 1$\mu Pa_{RMS}$.

The eastern distinct population segment (DPS) of Steller sea lions are migratory and appear to be most abundant in the Humboldt County area during spring and fall. The nearest haul out site for Steller sea lions is Blank Rock, located approximately 1 kilometer due west of Trinidad Pier, on the opposite side of Trinidad Head. Surveys document the absence of Steller sea lions at this haul out site between the months of October through April, and few have been observed during the months of August and September. Steller sea lions have not been observed in Trinidad Bay over eight years of surveys conducted within Trinidad Bay (D. Goley, Humboldt State

University, pers. comm., 2009). The area surrounding the project site could be used by non-breeding adults and juveniles and by adults after the breeding season. The principal mechanism of potential effect to Steller sea lions is exposure to underwater sound generated by the vibratory hammer, which would exceed the 120 dB Root Mean Square (RMS) threshold for continuous noise within a radius of not more than 2,625 feet from the proposed activity, and would not exceed, at any distance, the criterion for physical injury. As mentioned above, Steller sea lions have not been observed in Trinidad Bay; thus, we do not expect any individuals to be present within the 2,625 foot radius, where behavioral harassment could occur. The extremely shallow waters in the affected area also facilitate detection by the marine mammal monitor, and work would cease should a Steller sea lion enter the area and would not resume until after the animal had departed through its own volition. Thus, the likelihood that a Steller sea lion would be exposed to underwater sound levels within the behavioral harassment threshold from a continuous source (120 dB $_{RMS}$) generated by the vibratory hammer is extremely low, and any exposure that could occur would be very brief, as work would cease in the unlikely event that an animal enter the area.

Based on the timing of the Project (August 1, 2010 and May 1, 2011) and results of past surveys; NMFS believes few, if any, Steller sea lions will be present during Project implementation. Therefore, NMFS believes the exposure of individual Steller sea lions to Project activities is extremely low.

## ESA CONCLUSION

NMFS concurs with the Corps' determination that the proposed action may affect, but is not likely to adversely affect the federally threatened Steller sea lion. This concludes ESA consultation in accordance with 50 CFR 402.14(b)(1) for the proposed Project. Further consultation may be required if: (1) new information reveals effects of the action may affect listed species or critical habitat in a manner or to an extent not previously considered; (2) current Project plans change in a manner that causes an effect to the listed species that was not previously considered; or (3) a new species is listed or critical habitat designated that may be affected by the identified action.

## MMPA COMMENTS

The proposed action may result in effects to the following non ESA-listed marine mammal species: Pacific harbor seal (*Phoca vitulina richardii*), California sea lion (*Zalophus californianus*), and gray whale (*Eschrichtius robustus*). Whales, seals, and sea lions are protected under the MMPA. Under the MMPA, with the exception for military readiness, it is illegal to "take" a marine mammal without prior authorization from NMFS. "Take" is defined as harassing, hunting, capturing, or killing, or attempting to harass, hunt, capture, or kill any marine mammal. "Harassment" is defined as any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal in the wild, or has the potential to disturb a marine mammal in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.

Cher-Ae Heights Indian Community of Trinidad Rancheria submitted an application for an Incidental Harassment Authorization (IHA) on November 3, 2009. Any proposed mitigation or monitoring detailed in the IHA application would also benefit the federally listed Steller sea lion. NMFS is in the process of reviewing the IHA application at this time.

Thank you for consulting with NMFS on the proposed project. Please contact Monica DeAngelis at (562) 980-3232, or via e-mail at Monica.DeAngelis@noaa.gov if you have any questions concerning this consultation.

Sincerely,

For

Rodney R. McInnis
Regional Administrator

cc: David Ammerman, Corps
Jacque Hostler, Trinidad Rancheria
Vicki Frey, CDFG
Robert Merrill, California Coastal Commission
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