

levels up to 1,700 kJ, pile driving activity on YBI will require hammer energy levels less than 100 kJ. A total of approximately 2,950 piles will be needed to support the YBI transition structures. Each pile will require about 30 minutes of driving time; therefore, it is estimated that the East Span Project will include a total of about 1,500 hours of driving time for piles on YBI.

To construct all permanent structures, contractors will also install piles to found temporary structures, supports, falsework, a barge dock and trestles. These temporary structures are required to facilitate construction and support the permanent structures until they are self-supporting. Since the temporary structures will be designed by the contractor, their exact nature (size, type, quantity, etc.) will not be known until the contractors submit their plans to CALTRANS. While the number of piles placed to found the structures will be large, it is expected that they will be of a smaller size than the permanent structures since they are temporary and are not designed for traffic or seismic loading. There may be 1,000 to 2,000 temporary piles. These piles are expected to be 0.5 m (18 in) to 0.9 m (36 in) in diameter and 12 m (40 ft) to 30 m (100 ft) long. A vibratory driver/extractor will be used to install and remove these temporary piles, with energy levels less than 100 kJ. Driving time for each pile is likely to be 3 to 5 hours; therefore, the estimated range for driving time for the temporary structures varies from 3,000 to 10,000 hours.

The East Span Project would take 7 years to complete, plus 2 years to remove the existing East Span. Seismic safety and lifeline criteria would be achieved for westbound traffic 4 years after the start of construction and, for eastbound traffic, 5 years after the start of construction. The eastbound structure of the Skyway will be built first. Once all the piles supporting the piers for the eastbound structure are driven, construction will start for the westbound structure of the Skyway.

Construction will begin at the Oakland Approach and progress towards YBI, from Pier E16 to Pier E-3. Piers E-16 through E-7 for the eastbound and westbound structures of the Skyway will be surrounded by sheet-pile cofferdams that will be dewatered before the start of pile-driving. The sheet-pile sections for the cofferdam will be driven by a vibratory hammer. Cofferdam dimensions are approximately 84 ft (25 m) by 63–68 ft (19–20 m).

Construction began in early 2002. For more detailed description on the work

proposed by CALTRANS and potential environmental impacts, please refer to the CALTRANS application and/or the Final Environmental Impact Statement (Final EIS) prepared by the Federal Highway Administration (FHWA).

Comments and Responses

A notice of receipt and request for 30-day public comment on the application and proposed authorization was published on November 26, 2001 (66 FR 59001). During the 30-day public comment period, comments were received from the Marine Mammal Commission (the Commission) and CALTRANS. After the end of public comment period, letters were received from the Natural Resources Defense Council (NRDC), Campbell, George, and Strong, L.L.P. (CG&S) on behalf of Gunderboom, Inc., and an individual member of the public. These late comments are a part of this Administrative Record and were given full consideration in making a final determination in this matter (and are addressed within the text of this document). However, late comments that simply reference and either support or contradict comments that were submitted within the public comment period are not discussed in this document. In addition, because some public comments raised issues that needed resolution prior to NMFS making its determinations under section 101(a)(5)(D) of the MMPA, NMFS has incorporated into this document additional information that it requested from CALTRANS in reference to the statements submitted by the commenters. Finally, because the issue under consideration here is the issuance of an IHA to CALTRANS for the taking of marine mammals incidental to the activity, and because an IHA to CALTRANS does not authorize the CALTRANS' activity as such authorization is not within the jurisdiction of the Secretary of Commerce, comments that were submitted regarding subjects other than marine mammals, such as water quality concerns, have not been addressed in this document.

Activity Concerns

Comment 1: The Commission notes that the **Federal Register** notice does not address noise and other issues associated with destruction and removal of existing structures. The Commission recommends that NMFS consult with the applicant regarding any planned demolition activities, and provide authorization for potential takings of marine mammals that may occur as a result of such activities.

Response: Bridge demolition activities will not take place until after completion of construction of the new span. Those issues will be addressed in a future incidental take application and potential authorization action. As mentioned, this activity will take several years to complete. During this IHA, CALTRANS expects to conduct the following activities: (1) Complete construction of eastbound pier E7 (in cofferdam), (2) construct eastbound pier E6 (using bubble curtain), (3) start westbound Pier 16E (in cofferdam), (4) complete westbound pier 7E (in cofferdam), (5) start construction westbound pier 6E (in bubble curtain), and (6) possibly begin construction on pier E2. Presumably under a new IHA issued around October, 2004, CALTRANS will continue work on westbound piers E16 through E7 (in cofferdams) and E6 through E3 (using bubble curtains).

Comment 2: CALTRANS notes several minor technical corrections to the proposed authorization document. These corrections include that the 31-millisecond (ms) time frame should be 35 ms.

Response: NMFS has made several minor recommended changes as appropriate in this document without further reference. Use of the 35-ms time frame will allow CALTRANS to monitor sound with standard noise-meters with "real-time" results. Otherwise, CALTRANS notes, it would need to post-process the data. From the calibrated audio tapes made during the PIDP, the 31-ms (1.32-sec) RMS level of a pile strike was originally measured and found to be the same as the impulse (35 ms). There was zero dB difference between the 31-ms impulse RMS from the 35-ms sound level meter and that measured with the 31-ms RMS time constant. The 35-ms rise-time constant has been adopted in national and international standards as design goals for measurements of impulse sound level, the "RMS" Impulse (Harris, n.d.). Based on the data collected for the PIDP, averaging over 35 ms is a conservative measure of the maximum RMS SPL with respect to the Greenridge analysis (Greenridge, Appendix G in Illingworth and Rodkin, 2002) for pile 1D at 103 m (338 ft) distant and 6 m (20 ft) deep the Greenridge-measured SPL is 195 dB, and the RMS impulse (31 and 35 ms) is 196 dB.

Marine Mammal Impact Concerns

Comment 3: CALTRANS questioned the statement made by NMFS in the proposed authorization notice that both permanent in-Bay pile driving and pile driving on YBI has the potential to