

are limited to harbor seals and California sea lions.

The harbor seal is the only marine mammal species expected to be found regularly in the Bridge area. A detailed description of harbor seals was provided in the 1997 notification of proposed authorization (62 FR 46480, September 3, 1997) with corrections and clarifications provided in the notice of IHA issuance (62 FR 67045, December 23, 1997). This information is not repeated here, but may be found in the **Federal Register** notices mentioned previously in this document.

It should be noted that pups are born in mid- to late-March, peak numbers of pups are observed in early May, and, by the first week in June, all pups are weaned (Kopec and Harvey, 1995). Estimated pup counts at Castro Rocks were 35 in 1999, 40 in 2000 and 40 in 2001 (A. Bohorquez pers. comm in Green et al., 2001). This represents approximately 22–24 percent of the pups born in SFB.

The California sea lion primarily uses the Central SFB area to feed. California sea lions are periodically observed at Castro Rocks. No pupping or regular haulouts occur in the project area.

#### Potential Effects on Marine Mammals

The impact to the harbor seals and California sea lions is expected to be disturbance by the presence of workers, construction noise, and construction vessel traffic. Disturbance from these activities is expected to have only a short-term negligible impact to a small number of harbor seals and sea lions. These disturbances will be reduced to the lowest level practicable by implementation of the proposed work restrictions and mitigation measures (see Mitigation).

Marine mammal monitoring under previous IHAs has been conducted at Castro Rocks and at two “control” haul-out locations in SFB, Mowry Slough and Yerba Buena Island (Green et al., 2001, 2002) since 1998. To date, over 10,000 hours of observations have been conducted at these sites with two-thirds of those hours at Castro Rocks. While disturbances can consist of head alerts, approaches to the water, and flushes into the water, only the latter behavior is considered by NMFS to be Level B harassment. At Castro Rocks, of all flush disturbances monitored during the day, the major harassment sources were watercraft (e.g. motorboats, sailboats, tankers, kayaks and jet skis) with 0.128 disturbances/hr field time (d/hr); wildlife (seals and birds) with 0.075 d/hr; anthropogenic (debris, workmen on bridge with 0.040 d/hr; and “research” with 0.021 d/hr. Construction activities

resulted in 0.0165 d/hr. There were fewer flushes observed at night. More detailed information on the extent of take by harassment at Castro Rocks by activities other than the requested authorization, please refer to Green et al. (2002).

During the work period (August 1 through February 14), the incidental harassment of harbor seals and, on rare occasions, California sea lions is expected to occur on a daily basis upon initiation of the retrofit work. In addition, the number of seals disturbed will vary daily depending upon tidal elevations. Monitoring by Green et al. (2002) indicates that although overall seal numbers each month of the year are not significantly different across years, there are differences in subsite use by seals at Castro Rocks during both the daytime and nighttime. For example, the average number of seals hauled out on Castro Rocks (rocks A and C) during the fall of 2001 (when construction activity was taking place within the area of the haul-out site) was significantly different than the average number of seals hauled out on Castro Rocks during 1998–2000, prior to the construction period. It was noted that fewer seals were using rock A, located closest to the Bridge and more seals were hauling out on rock C which was located farther from the Bridge than rock A. The number of seals hauled out on rocks B and E was not significantly different between years while the number hauled out on rocks D and F was greater during the fall of 2000 and 2001 than 1998 and 1999. For a more detailed discussion on the distribution of harbor seals during the work and non-work periods and levels of impact by various natural and anthropogenic disturbance sources, please see Green et al. (2002) which is available upon request (see **ADDRESSES**).

Although California sea lions have been shown to react to pile driving noise by porpoising quickly away from the site (SRS Technologies, 2001), it is not known whether they will react to general construction noise and move away from the rocks during construction activities. However, sea lions are generally thought to be more tolerant of human activities than harbor seals and are, therefore, less likely to be affected.

#### Potential Effects on Habitat

Short-term impacts of the activities are expected to result in a temporary reduction in utilization of the Castro Rocks haulout site while work is in progress or until seals acclimate to the disturbance. This will not likely result in any permanent reduction in the number of seals at Castro Rocks. The abandonment of Castro Rocks as a

harbor seal haulout and rookery is not anticipated since existing traffic noise from the Bridge, commercial activities at the Chevron Long Wharf used for off-loading crude oil, and considerable recreational boating and commercial shipping that currently occur within the area have not caused long-term abandonment. In addition, mitigation measures and work restrictions are designed to preclude abandonment.

Therefore, as described in detail in CALTRANS (1996), other than the potential short-term abandonment by harbor seals of part or all of Castro Rocks during retrofit construction, no impact on the habitat or food sources of marine mammals are likely from this construction project.

#### Mitigation

Several mitigation measures to reduce the potential for general noise have been implemented by CALTRANS as part of their activity. General restrictions include: with the exception of the Concrete Trestle Section, no piles will be driven (i.e., no repetitive pounding of piles) on the Bridge between 9 p.m. and 7 a.m.; an imposition of a construction noise limit of 86 dBA at 50 ft (15 m) between 9 p.m. and 7 a.m.; and, a limitation on construction noise levels for 24 hrs/day in the vicinity of Castro Rocks during the pupping/molting restriction period.

To minimize potential harassment of marine mammals, previous authorizations (1997–2001) required CALTRANS to comply with the following mitigation measures: (1) A February 15 through July 31 restriction on work in the water south of the Bridge center line and retrofit work on the Bridge substructure, towers, superstructure, piers, and pilings from piers 52 through 57; (2) no watercraft will be deployed by CALTRANS employees or contractors, during the year within the exclusion zone located between piers 52 and 57, except for when construction equipment is required for seismic retrofitting of piers 52 through 57; and (3) minimize vessel traffic to the greatest extent practicable in the exclusion zone when conducting construction activities between piers 52 and 57. From 1997 through September 2002, the boundary of the exclusion zone was rectangular in shape (1700 ft (518 m) by 800 ft (244 m)), completely enclosing Castro Rocks and piers 52 through 57, inclusive. The northern boundary of the exclusion zone was located 300 ft (91 m) from the most northern tip of Castro Rocks, and the southern boundary was located 300 ft (91 m) from the most southern tip of Castro Rocks. The eastern boundary was