

appropriate to determine whether there is a significant potential for TTS and whether that impact could lead to PTS.

Other Concerns

Comment 23: One commenter asked what in-air noise mitigation was recommended.

Response: Previously (see 68 FR 52332, September 2, 2003), NMFS determined that Level B disturbance in the air for California sea lions and northern elephant seals began at approximately 100 dBA, and for Pacific harbor seals at approximately 90 dBA. Based on airborne measurements made during the PIDP, airborne SPLs will be significantly below these levels within the safety zones that have been established under this IHA in order to prevent injury. Therefore, NMFS does not believe that in-air noise mitigation measures are needed to protect pinnipeds from injury. In addition, airborne acoustic measurements will be made during this IHA to determine whether Level B harassment is occurring on the nearest pinniped haulout.

Description of the Marine Mammals Potentially Affected by the Activity

General information on California sea lions, Pacific harbor seals, gray whales and other marine mammal species found in California waters can be found in Caretta *et al.* (2002, 2001), which are available at the following URL: http://www.nmfs.noaa.gov/prot_res/PR2/Stock_Assessment_Program/sars.html. Refer to those documents for information on these species. The marine mammals most likely to be found in the SF-OBBS area are the California sea lion and Pacific harbor seal. From December through May gray whales may also be present in the SF-OBBS area.

California Sea Lions

While there is evidence that California sea lions historically used the Bay, they are rarely observed hauled out in the Bay (Bauer, 1999). However, since at least 1987, sea lions have been observed occupying the docks near Pier 39 in San Francisco, approximately 5.7 km (3.5 mi) from the project site. Pier 39 has now become a regular haul-out site for California sea lions. Currently, no other California sea lion haul-out sites have been identified in the Bay. Approximately 85 percent of the animals hauled out at the Pier 39 site are males, and no pupping has been observed at this site or any other site in the Bay (Lander pers. comm. to CALTRANS, 1999).

The number of California sea lions hauled out at Pier 39 ranged from 63 to 737 in 1998 and from 5 to 906 in 1997 (Marine Mammal Center, Sausalito data). For both years, the lows occurred in June and the highs occurred in August. In October 1999, 831 sea lions were observed on K dock at Pier 39. The trend in annual movement is for sea lions to first appear at the site after returning from the Channel Islands breeding area (over 483 km or 300 mi to the southwest) at the beginning of August (Bauer, 1999). Around late winter, the sea lions travel south to the breeding grounds, and numbers at the Bay haul-out site decline. The lowest numbers of sea lions at the Pier 39 haul-out are usually observed from May through July. However, the number of sea lions at the haul-out site fluctuates quite a bit throughout the year and even from one week to the next. For example, in June of 1998, a maximum of 574 sea lions was observed on June 7th while a low count of 63 was observed on June 25th (Lander pers. comm. to CALTRANS, 1999).

While little information is available on the foraging patterns of California sea lions in the Bay, individual sea lions have been observed feeding in the shipping channel to the south of YBI on a fairly regular basis (Grigg pers. comm. to CALTRANS, 1999). Foraging by sea lions that utilize the Pier 39 haul-out site primarily occurs in the Bay, where they feed on prey items such as Pacific herring, northern anchovy and sardines (Hanni, 1995).

Pacific Harbor Seals

Pacific harbor seals are the only species of marine mammal that breed and bear young in the Bay (Howorth and Abbott, 1999). There are 12 haul-out sites and rookeries in the Bay and of those, only eight are used by more than a few animals at a time. Only three sites in the Bay are regularly used by more than 40 harbor seals at any one time; these are Mowry Slough, located in the South Bay, YBI, and Castro Rocks, located in the Central Bay (Spencer, 1997). The three closest haul-out sites to the project location are at YBI, Angel Island, and Castro Rocks. A recent aerial harbor seal count, conducted by D. Hanan of the California Department of Fish and Game, found 477 individuals in the Bay (Greene, pers. comm. to CALTRANS, 1999). It is important to note that not all harbor seals were counted, as some may have been under water during the survey.

Harbor seals are present in the Bay year-round and use it for foraging, resting and reproduction. Peak numbers of hauled-out harbor seals vary by haul-

out site depending on the season. Results of a study of 39 radio-tagged harbor seals in the Bay found that most active diving occurred at night and a majority of the diving time was spent in seven feeding areas in the Bay. The two feeding areas located closest to the project site are just to the south of YBI and north of Treasure Island. This study also found that the seals dove for a mean time of 0.50 minutes to 3.33 minutes. Mean surface intervals or the mean time the seals spent at the surface between dives ranged from 0.33 minutes to 1.04 minutes. Mean haul-out periods ranged from 80 minutes to 24 hours (Harvey and Torok, 1994).

Pupping season in the Bay begins in mid-March and continues until about mid-May. Pups nurse for only 4 weeks and mating begins after pups are weaned. In the Bay, mating occurs from April to July and molting season is from June until August (Schoenherr, 1995; Kopec and Harvey, 1995).

Pacific Harbor Seal Haul-Out Sites in the Vicinity of the East Span Project

YBI is located in the Central Bay, adjacent to man-made Treasure Island. The SF-OBBS passes through a tunnel on YBI. An important harbor seal haul-out is located on a rocky beach on the southwest side of YBI (Kopec and Harvey, 1995). Harbor seal re-sightings at the YBI haul-out site indicate long-term usage of the site (Spencer, 1997). Pile driving activity for the East Span Project will be performed on the northeast side of YBI and in the San Francisco Bay, between the northeast side of the island to the Oakland Touchdown area. The harbor seal haul-out site is located about 450 m (1,476 ft) from the closest planned pile driving activity on land and about 950 m (3,117 ft) from the closest planned pile driving activity in the Bay.

Harbor seals haul out year-round on YBI, but it is not considered a pupping site as no births have been observed there. Occasionally, pups have been seen at an average of 1 pup per year, though more recently, 7 pups were observed at one time in May, 1999 (San Francisco State University unpublished records, 1998–9). In a study of the haul-out site conducted between 1989 and 1992, males comprised 83.1 percent of the seals whose gender could be determined (Spencer, 1997). Peak numbers of harbor seals at this haul-out site have been observed from November to February. The maximum reported number of seals hauled out at one time is 344, counted in January 1992 (Kopec and Harvey, 1995). More recently, the number of seals counted at YBI ranged from 0 to 296 for the period May 1998