



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Sacramento Fish and Wildlife Office  
2800 Cottage Way W-2605  
Sacramento, California 95825



In reply refer to:  
FWS/EC-07-072

Mr. Thomas L. Macchiarella  
BRAC Environmental Coordinator  
1455 Frazee Rd., Suite 900  
San Diego, California 92108-4310

MAY 14 2007

Dear Mr. Macchiarella:

The U.S. Fish and Wildlife Service (Service) appreciates the opportunity to review the *Draft Remedial Investigation Report, IR Site 20 (Oakland Inner Harbor) and IR Site 24 (Pier Area), Revision 1, Alameda Point, Alameda*, dated February 2007 (comments by April 27, 2007) and the *Draft Site Inspection Report for Western Bayside and Breakwater Beach, Alameda Point, Alameda, California*, dated March 2007 (comments by May 8, 2007). The Service is providing the enclosed comments in accordance with the National Contingency Plan (40 CFR, part 300, subpart G). Limited resources preclude a thorough review of these documents and therefore, our limited review focuses on the ecological risk assessment conducted for California least terns, a federally listed endangered species that breeds on Alameda Point and feeds predominantly in the waters close to the shore. The Alameda Point tern colony is considered to be one of the most important "source" populations in California, producing large numbers of fledglings that potentially add large numbers of new breeding birds to the statewide population. It is important that any potential ecological risk is properly assessed and protective of breeding least terns at Alameda Point.

For each of the four sites, Oakland Inner Harbor, Pier Area, Western Bayside, and Breakwater Beach, the Tier 1 screening-level risk estimates for avian receptors, and specifically least terns, identified a number of constituents requiring further evaluation. The exposure estimates in these conservative Tier 1 screenings are based on a site use factor (SUF) of 1.0, i.e., all foraging occurs on-site. However, based on the refined baseline ecological risk assessments (BERA), no further action was recommended for each site based on acceptable ecological risks. The dose model in the BERAs reduces the SUF to a percentage based on the average of 10 years of data on distributional patterns of foraging terns at Alameda Point. The dose from non-site use is calculated from prey concentrations modeled assuming reference sediment concentrations.

The least tern foraging distribution data, from which the SUFs are estimated (provided in Table 6-2 of the Remedial Investigation Report), indicate that the major foraging areas comprise a number of Alameda Point sites with elevated concentrations of organic and inorganic constituents sampled from sediments.

Mr. Thomas L. Macchiarella

8/2

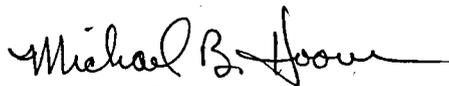
The site use estimates for Breakwater Beach (Study Area 1), Site 24 (Study Area 4), Western Bayside (Study Areas 7, 8, 9, and 10), Site 20 (Study Area 13/15), and Seaplane Lagoon (Study Area 14) total over 75% of the average yearly foraging distribution (and as much as 93% of the foraging distribution in one of the years). These percentages may be higher as they do not include Study Area 12 or Study Area 3 as being associated with IR sites (see Figure 6-5). The foraging data contradict the assumption in the BERA that reference sediment concentrations are adequate to estimate the non-site dose. The current approach in the BERA for each individual site evaluates risks to terns as if it exists in isolation, surrounded by foraging areas only with ambient background concentrations. This approach clearly underestimates the dose and the resultant hazard quotients [ $HQ = \text{dose}/\text{toxicity reference values (TRV)}$ ] upon which the food-chain BERA is based.

In order to evaluate the assessment endpoint, i.e., sufficient rates of survival, growth, and reproduction to sustain the avian community in the area, including special-status species, the measurement endpoints must be properly estimated. Assuming all non-site doses for the least tern are based on reference or ambient concentrations results in HQs that are biased low, making it difficult to evaluate potential impacts. More realistic estimates would include the site-specific doses to the least tern calculated with non-site doses modeled from sediment concentrations representative of the specific foraging areas rather than assuming these concentrations are at background or ambient concentrations. The Service recommends recalculating the least tern site-specific doses and HQs with more realistic estimates for the non-site doses and re-evaluating the ecological risks associated with these sites based on the revised food-chain BERAs. Recalculating with more realistic estimates is required to properly evaluate the risk to least terns.

In addition to the comments regarding recalculating above, we would also like to have a better understanding of the area with *limited potential for adverse effects* eastward of the quay wall as discussed in Section 6.6 of the Draft Remedial Investigation Report, IR Site 20. Please provide more information to help the reader understand the location of the area and the basis for the statement.

If you have questions and would like to discuss these comments, please contact Carolyn Marn of my office at (916) 414-6602 or [Carolyn\\_Marn@fws.gov](mailto:Carolyn_Marn@fws.gov).

Sincerely,



Michael B. Hoover  
Acting, Assistant Field Supervisor

Mr. Thomas L. Macchiarella

#3

cc:

Jim Polisini, Department of Toxic Substances Control, Glendale, California  
Dot Lofstrom, Department of Toxic Substances Control, Sacramento, California  
Mark Ripperda and Ned Black, U.S. EPA, San Francisco, California  
Charlie Huang, California Department of Fish and Game, Sacramento, California  
Laurie Sullivan, NOAA, San Francisco, California  
Ryan Olah, Fish and Wildlife Service, Sacramento, California