

## MEMORANDUM

**DATE:** October 23, 2009

**TO:** Ivy Edmonds-Hess  
Parsons Brinckerhoff

**FROM:** Steve Granholm, Bird Monitoring Task Leader  
LSA Associates, Inc.

**FOR:** California Department of Transportation

**SUBJECT:** Bird Monitoring Memo #381, Week of October 19 - 23, 2009  
Bay Bridge East Span Project

**PURSUANT TO:** US Fish and Wildlife Service Biological Opinion and California Department of Fish and Game Incidental Take Permit

### Introduction

The California Department of Transportation (Department) is in the process of replacing the East Span of the San Francisco-Oakland Bay Bridge (SFOBB) with a new bridge immediately to the north of the existing span (Figure 1). Construction of the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project (SFOBB Project) is a multi-year effort that will involve a number of construction activities on land as well as in San Francisco Bay. Some of these activities could potentially affect federally and State endangered or threatened bird species and other bird species of special concern.

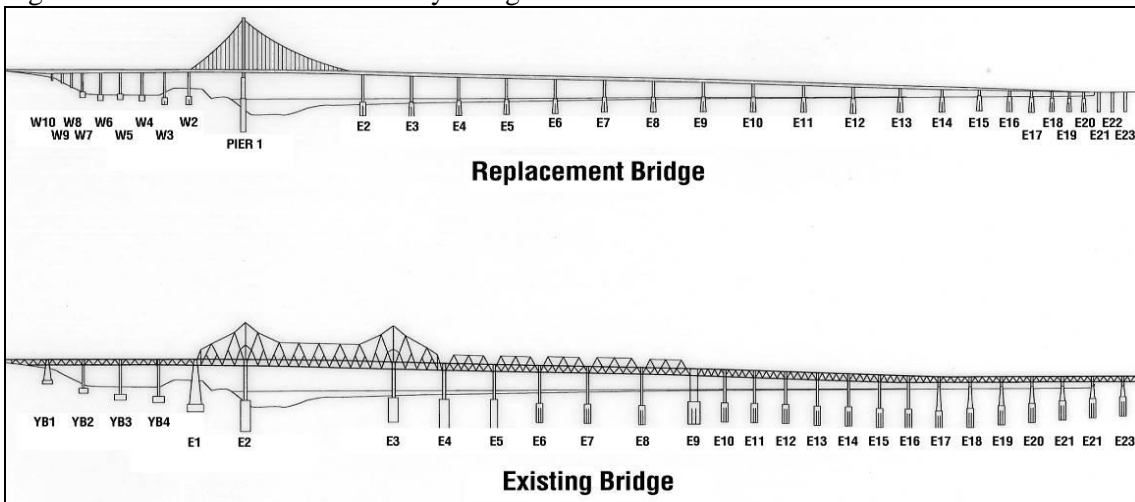
Figure 1. San Francisco-Oakland Bay Bridge Seismic Safety Project Location Map



The U.S. Fish and Wildlife Service (USFWS) Biological Opinion (page 22) and the California Department of Fish and Game (CDFG) Incidental Take Permit (Fully Protected Species Items 1 and 2 on pages 4 and 5) require monitoring of the California least tern and California brown pelican. The CDFG is also concerned about potential impacts to the American peregrine falcon and the double-crested cormorant and required a management plan for these species (Fully Protected Species Item 3 on page 5). In addition, the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project Final Environmental Impact Statement/Statutory Exemption and Final Section 4(f) Evaluation (FEIS) (page 4-130) requires that the Department monitor the double-crested cormorant colony and American peregrine falcon during the breeding season.

As required by the USFWS Biological Opinion and CDFG Incidental Take Permit, the monitoring efforts are focused primarily on three endangered species: the California least tern, California brown pelican, and American peregrine falcon. The primary objectives of these monitoring efforts are to minimize impacts to these three species and document any take of these species resulting from construction activities. In addition, monitoring is conducted to assess: 1) potential impacts to the behavior of American peregrine falcons and double-crested cormorants on the existing SFOBB East Span; 2) seasonal Canada goose activities along an exclusion fence built between a portion of the Emeryville Crescent and I-80; and 3) potential impacts on breeding activities of western gulls, which are known to nest on both the existing and new bridges (Figure 2). Monitoring is conducted in accordance with the *Final (Revised) Bird Monitoring and Management Plan* (Department, 2003). This plan incorporated the requirements of the USFWS, the CDFG, and the FEIS, as well as those of the San Francisco Bay Conservation and Development Commission (BCDC) Permit No. 8-01, Special Condition F-6.

Figure 2. San Francisco-Oakland Bay Bridge Pier Locations



The bird monitors are required to conduct a survey once a week for three hours, if construction activities are underway. This memo summarizes the East Span construction bird monitoring activities conducted by LSA Associates, Inc. (LSA) and Garcia and Associates (GANDA) during the week of October 19 - 23, 2009.

## **Bird Monitoring Activities**

LSA and GANDA conducted monitoring of the active construction areas from GANDA's boat. Construction activities during the bird survey included workers conducting various activities at the Oakland Touchdown, South-South Detour, and Self-Anchored Suspension (SAS) construction sites and crew boat traffic on San Francisco Bay. In addition, a vibratory hammer was used to drive one pile as part of access trestle construction for the SAS span.

The survey was conducted from 0915 to 1215 hours on October 21, 2009.

## **Results**

### **Monitoring of Active Construction Areas**

*California Least Tern:* No least terns were observed.

*California Brown Pelican:* The bird monitors recorded 28 observations of brown pelicans (observations likely included repeated sightings of some individual pelicans):

- At 1000 hours, one was flying 200 to 300 meters (656 to 984 feet) north of the SAS construction area;
- At 1001 hours, one flew and then landed on the water approximately 50 meters (164 feet) north of the SAS construction area;
- At 1010 hours, one was flying south under the new bridge falsework and the existing bridge just east of Tower 1 (T1);
- At 1014 hours, two were flying over the east end of Clipper Cove;
- At 1020 hours, two were flying and foraging in Clipper Cove;
- At 1028 hours, six were perched on a floating dock near the east edge of Clipper Cove;
- At 1030 - 1035 hours, two were flying and foraging about 25 to 250 meters (82 to 820 feet) north of the SAS construction area;
- At 1049 hours, one was foraging just north of T1;
- At 1055 hours, one was flying between existing Piers E7 and E8 and two were perched on the cable-crossing structure;
- At 1105 hours, four were perched on the south side of existing Pier E15;
- At 1115 hours, one was perched on the piling just south of the existing bridge and east of the Oakland Touchdown;
- At 1143, one was perched on the south side of existing Pier E13;
- At 1145 hours, two were perched on pilings just west of the cable-crossing structure; and
- At 1152, one was flying in the SAS construction area.

*Peregrine Falcon:* No peregrine falcons were observed.

*Double-crested Cormorant:* Approximately 241 double-crested cormorants were observed in the study area, including about 200 roosting under the existing bridge, 25 perched on metal debris on the south shore of the Oakland Touchdown, and the others foraging or flying elsewhere in the study area. No cormorants were seen on the constructed nest structures on the new bridge.

*Western Gull:* Approximately 40 western gulls were observed in the study area. Most were flying or foraging, with smaller numbers perched under the existing bridge.

*Observations of Additional Bird Species:* Other bird species observed during the survey (and the approximate number of individuals) were greater scaup (30), surf scoter (93), western grebe (20), Clark's grebe (17), western or Clark's grebe (75), Brandt's cormorant (4), and Forster's tern (1).

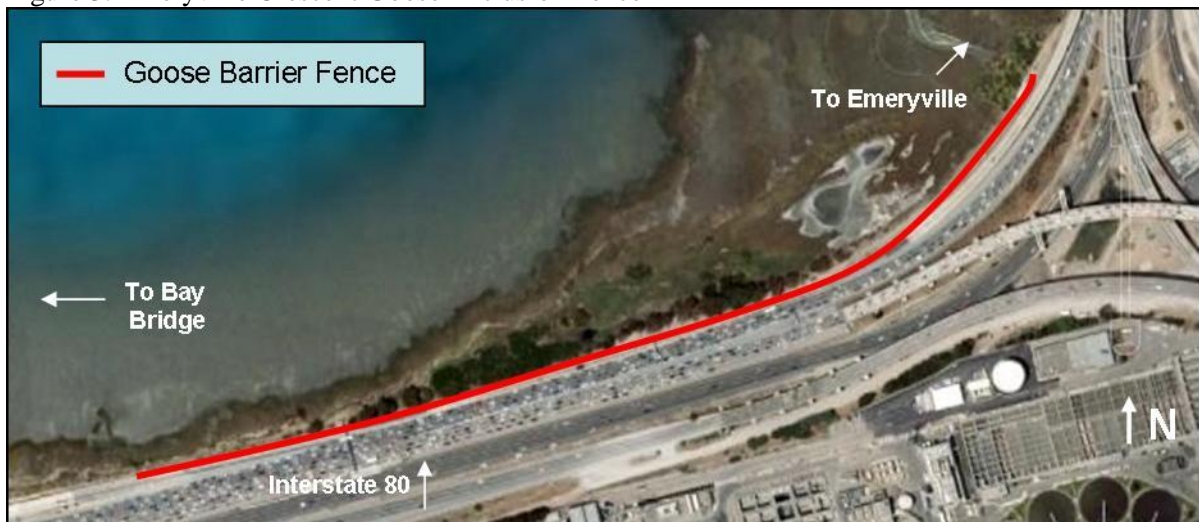
### **American Peregrine Falcon Nest Monitoring**

Peregrine falcon monitoring has concluded for the 2008-2009 nesting season. Monitoring for the 2009-2010 season will begin in December 2009.

### **Canada Goose Monitoring along the I-80 Roadway Adjacent to the Emeryville Crescent**

Bird monitors are required to conduct Canada goose monitoring along the I-80 roadway adjacent to the Emeryville Crescent during March through August (Figure 3). The monitoring season may be extended through September or October, if warranted, based on the presence of geese that may be at risk. The monitoring objective is to assess the effectiveness of an 850-meter (2,800-foot) long fence that was designed to exclude Canada geese from entering the I-80 roadway.

Figure 3. Emeryville Crescent Goose Exclusion Fence



Canada goose monitoring has concluded for the 2009 nesting season. Monitoring for the 2010 season will begin in March 2010.

## **Conclusions**

The monitors did not observe any indications that birds were disturbed due to SFOBB project construction activities.

cc: Stefan Galvez, California Department of Transportation