

## MEMORANDUM

DATE: April 10, 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 #350, Week of March 16 - 20, 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

In order to improve the seismic safety of the San Francisco-Oakland Bay Bridge (SFOBB), the State of California, Department of Transportation (Caltrans) is replacing the existing SFOBB East Span with a new bridge immediately to the north. This 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 or State endangered or threatened bird species and other bird species of special concern.

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 Caltrans monitor the double-crested cormorant colony and American peregrine falcon during the breeding season and prevent the birds from nesting on the existing bridge where potential impacts by construction activities could occur.

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 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 potential impacts to the breeding efforts of American peregrine falcons and double-crested cormorants on the existing SFOBB East Span. The monitoring also assesses potential impacts on breeding activities of western gulls, which are now known to nest on the existing bridge and new Pier E10E. Monitoring was conducted in accordance with the *Revised*

*Final Bird Monitoring and Management Plan* (Caltrans 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 #8-01, Special Condition F-6.

This memo summarizes the SFOBB East Span's construction bird monitoring activities conducted by LSA Associates, Inc. (LSA) and Garcia and Associates (GANDA) during the week of March 16 - 20, 2009.

### **Bird Monitoring Activities**

LSA and GANDA conducted monitoring of the active construction areas from GANDA's boat, GANDA conducted peregrine falcon nest monitoring from the eastern shoreline of Yerba Buena Island (YBI), and LSA conducted Canada goose monitoring from the Emeryville Crescent side of the goose exclusion fence along I-80. Construction activities during the bird survey included workers conducting various activities at the Oakland Touchdown Westbound, South-South Detour (SSD), and Self-Anchored Suspension (SAS) construction sites; continued falsework construction in the Pier T1 area; and crew boat, tug, and barge traffic in San Francisco Bay. Construction activities during the peregrine survey included work activity at the SSD and SAS construction sites on YBI.

The bird survey was conducted from 1345 to 1645 hours on March 19, 2009. Peregrine falcon monitoring was conducted from 1115 to 1400 hours on March 17, 2009, from 1430 to 1630 hours on March 19, 2009, and from 0945 to 1230 hours on March 20, 2009. Canada goose monitoring was conducted from 1200 to 1245 hours on March 17, 2009.

### **Results**

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

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

*California Brown Pelican:* No brown pelicans were observed.

*Peregrine Falcon:* Two peregrine falcons were observed. At 1442 hours, one was flying west near existing Pier E5. It then circled back around existing Pier E3 and was joined by a second individual. After a brief aerial encounter, one bird perched on the top of the existing bridge superstructure (south side), about 50 meters (164 feet) east of existing Pier E4. The second bird perched on the south side of the lower deck, about 30 meters (98 feet) west of Pier E4. At 1503 hours, one bird perched on the light fixture on the north side of the diagonal beam east of Pier E4. This bird appeared to have heavy barring on the breast.

*Double-crested Cormorant:* Thirty-five double crested cormorants were seen in the study area. Most were resting under the existing bridge between Piers E10 and E15. No nesting activity was observed.

*Western Gull:* Approximately one hundred western gulls were observed in the study area. Most were perched on the existing bridge. Pairs are starting to form.

*Observations of Additional Bird Species:* The other bird species observed during the bird survey (and the approximate number of individuals) were American wigeon (12), Eurasian wigeon (1), greater scaup (80), surf scoter (10), bufflehead (60), common goldeneye (2), ruddy duck (3), common loon (1), horned grebe (7), eared grebe (9), western grebe (4), Clark's grebe (5), western or Clark's grebe (65), Brandt's cormorant (14), turkey vulture (1), mew gull (1), California gull (1), and glaucous-winged gull (4).

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

On March 17, 2009 at 1115 hours, an adult male peregrine falcon was observed perched on the top of existing Pier E3. It was perched on the catwalk railing near the highest part of Pier E3 and was facing east. At 1249 hours, the male flew to existing Pier E5. At the same time, the female flew south from the vicinity of existing Pier E5 for a short distance and returned back to Pier E5, perching under the lower deck. At 1326 hours, the female flew to existing Pier E4 and perched on the railing below the lower deck on the south leg of Pier E4. At 1341 hours, the male flew to the female and copulated with her on the Pier E4 railing. At 1342 hours, the male flew east and out of view and the female hopped into an apparent cavity on the south-facing side of Pier E4. No further observations of either adult peregrine were made for the remaining 18 minutes of the monitoring period.

On March 19, 2009 at 1235 hours, an adult male peregrine falcon was observed perched on the top of existing Pier E3. At 1310 hours, the male flew east toward the Emeryville Crescent, flying over the new bridge. At 1312 hours, it was observed perched on existing Pier E5 under the lower deck of the bridge. At 1313 hours, it flew to the south side of the existing bridge and perched on the core beam approximately 10 meters (33 feet) east of Pier E4. At 1315 hours, it flew to a recessed area on the east-facing side of the south leg of Pier E4. At this location, the male plucked and consumed a bird prey item. At 1333 hours, it flew to Pier E5, then back to Pier E4. The male perched on the south side of Pier E4 in a location out of view from the observation area. Neither adult peregrine was seen for the remainder of the monitoring period.

On March 20, 2009 at 0945 hours, an adult female peregrine falcon was observed perched under the lower deck of the existing bridge at Pier E5. She remained in this location for 2.5 hours, preening occasionally. At 1215 hours, she flew to existing Pier E4. At 1217 hours, the male appeared on the railing on the south side of Pier E4, where he defecated a noticeably large excretion. This event was believed to be a nest exchange, with the female taking over for the male. After defecating, the male flew to Pier E5 and perched under the lower deck. He remained in this location for the remaining 13 minutes of the monitoring period.

Based on the observations this week, the SFOBB East Span peregrine falcons are believed to be in the full-time incubation phase of their nesting cycle, and their nest site is assumed to be on the south side of existing Pier E4. It is assumed that the female has laid a full clutch of eggs and that the adults are incubating full-time. The hatching date is estimated to be on or about April 21, 2009. There was no evidence that the peregrine falcons were disturbed by the construction activities.

*Other Bird Species Observed:* The other bird species observed during the peregrine monitoring were Canada goose, common loon, eared grebe, western grebe, double-crested cormorant, western gull, and Anna's hummingbird. The number of other bird species observed during the peregrine falcon monitoring is not recorded because this activity would distract the monitor from watching for peregrine falcons.

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

Five Canada geese were observed in the vicinity of the goose fence. Three adults were swimming in the marshy pond north of the carpool sign at 1238 hours. Another adult goose was seen in the vicinity of the nest that was found on March 14, 2009. This bird chased away another individual that flew into the area at 1240 hours.

Grasses and forbs are growing under the toe of the goose fence and forcing it up off the ground in several places.

### **Conclusions and Recommendations**

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

The toe of the goose fence should be restapled to the ground in several places. We recommend that the entire fence be walked and stapled where needed.

cc: Stefan Galvez, Caltrans