

**San Francisco – Oakland Bay Bridge
East Span Seismic Safety Project**

***FINAL*
PRELIMINARY BIRD MONITORING PROTOCOL**



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PRELIMINARY BIRD MONITORING PROTOCOL**



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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 East Span with a new bridge immediately to the north (see Figure 1). This is a multi-year effort that will involve a number of construction activities on land as well as in the Bay. Some of these activities have been identified in several documents as having potential effects on federally endangered or threatened bird species and other bird species of special concern. These documents include:

- The San Francisco-Oakland Bay Bridge East Span Seismic Safety Project Final Environmental Impact Statement/Statutory Exemption and Final Section 4(f) Evaluation (U.S. Department of Transportation, Federal Highway Administration [FHWA] May 2001)
- California Endangered Species Act Incidental Take Permit (No. 2081-2001-021-03) for the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project (California Department of Fish and Game [CDFG] November 2001)
- San Francisco Bay Conservation and Development Commission Permit No. 8-01 for the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project (San Francisco Bay Conservation and Development Commission [BCDC] November 2001)
- Formal Endangered Species Consultation for the Proposed San Francisco-Oakland Bay Bridge East Span Seismic Safety Project, Alameda County, California (Letter 1-1-02-F-0002 dated October 29, 2001) (U.S. Fish and Wildlife Service [USFWS] October 2001)

The USFWS (page 22) requires Caltrans to have a monitor “placed to observe construction areas where project-related pile driving and dredging activities are underway in an effort to avoid and minimize impacts” to the California least tern and California brown pelican. On pages 4 and 5 (Fully Protected Species Items 1 and 2), the CDFG Incidental Take Permit requires that the permittee monitor for and report any impacts to the California least tern and California brown pelican. In addition, Fully Protected Species Item 3 (page 5) states that “Caltrans, in consultation with the Department, shall develop a management plan that addresses potential impacts to peregrine falcons and cormorants. The management plan shall discuss all bridge construction, removal, and maintenance activities and develop schedules for activities in order to avoid the take of peregrine falcons and cormorants, especially during their critical nesting periods.”

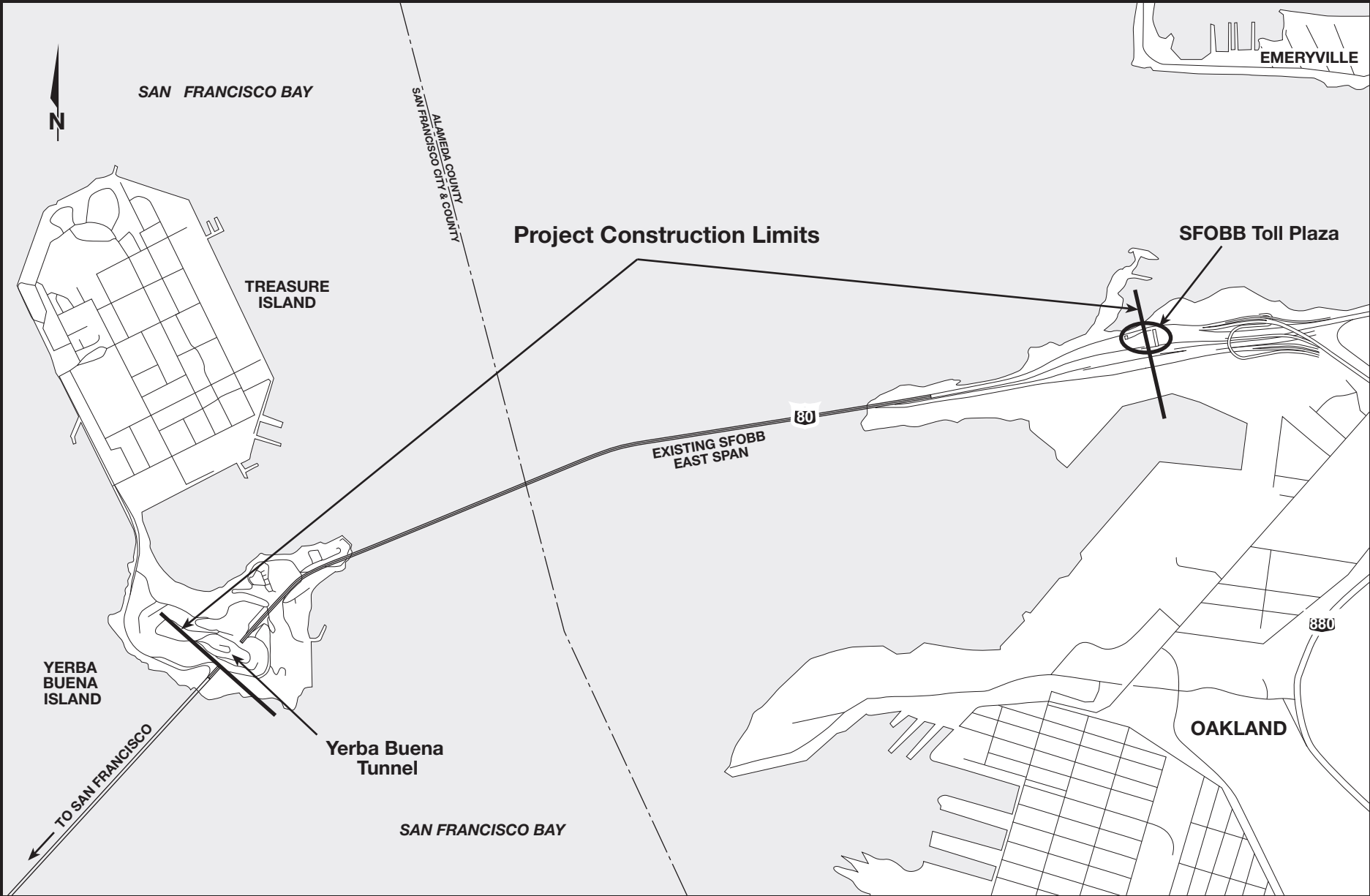
In addition, the FEIS (page 4-130) requires that Caltrans monitor the double-crested cormorant colony, American peregrine falcon and western gulls during the breeding season and prevent the birds from nesting on the existing bridge where potential impacts by construction activities could occur.

A Bird Monitoring Plan is currently being developed to guide the bird monitoring efforts for approximately six years, during construction of the new bridge.

The preliminary monitoring protocol has been prepared to guide the bird monitoring until the actual monitoring plan is completed and approved by the relevant agencies. This preliminary protocol has been implemented for approximately 18 weeks, beginning July 2, 2002.

SURVEY PROTOCOLS

Construction Activities Monitored. During this 18-week initial monitoring period, the primary construction activities that are anticipated to take place are geofill work (under the Geofill Contract) on the Oakland Touchdown and barge access dredging along the north side of the existing bridge



GT SFOBB
 EAST SPAN
 SEISMIC SAFETY
 PROJECT

SCALE
 0 250 500 1000 m

Project Construction Limits

Figure 1

under the Skyway Contract. These activities are being monitored under this protocol. Monitoring at the San Francisco Deep Ocean Disposal Site will be addressed in a separate protocol document.

Frequency and Duration. Survey trips will be made two times per week, with three to five hours spent on-site during each survey. The timing of these surveys will be scheduled to allow bird observations at different tidal stages. The two surveys in a given week will not be on consecutive days.

Target Species. As required by the USFWS Biological Opinion and CDFG permit, this monitoring effort will focus primarily on three endangered species: the California least tern, California brown pelican, and American peregrine falcon. The objective will be to document any take of these species resulting from construction activities.

The BCDC and CDFG permits also require that impacts to double-crested cormorants be minimized. The FEIS requires the same for the western gull. To satisfy these requirements, the breeding activity of these species will be monitored in the vicinity of construction activities. The objective will be to determine whether construction is having any adverse impacts to their breeding efforts on the existing East Span. This information can potentially be used in subsequent years to minimize impacts to these species.

Survey Methods. Surveys will be carried out from a small motor boat and from land (Oakland Touchdown area and Yerba Buena Island), as appropriate, to ensure adequate monitoring of construction activities. In all cases, the bird monitors will avoid interference with construction and will avoid disturbing birds.

During each survey, one or two qualified ornithologists will use binoculars to scan for target bird species and observe their behavior within 1,640 feet (500 meters) of construction activities and to note their presence within 3,280 feet (1,000 meters) of construction activities. The presence of all other species of birds and marine mammals within 1,640 feet (500 meters) of construction will also be noted. Observations will be recorded on project-specific data sheets (an example is attached), with separate sheets used for each day and each construction site. In addition, the location of the construction site surveyed will be recorded on a map and attached to the corresponding data sheet.

For the California least tern, California brown pelican, and peregrine falcon, the following information will be collected:

- Number of individuals observed (separately for adults, juveniles, and nestlings);
- Distance from construction activities;
- Behaviors and activities, especially any behavior seemingly in response to construction; and
- Disturbance or incidental take of individuals during construction.

Monitoring of double-crested cormorants and western gulls will focus on the East Span of the existing bridge, which already supports a large cormorant colony and could support western gull nesting. The following information will be collected for these two species:

- Nesting behavior; and
- Responses to construction activities.

Notification. The Caltrans Permit Compliance Manager and the U.S. Coast Guard (for boat surveys) will be contacted and informed of the starting time, duration, and location of each survey. This notification will be given no later than the morning prior to the survey.

Caltrans will be notified promptly if an incidental take of a California least tern, California brown pelican, or American peregrine falcon is observed during the surveys, so that Caltrans can notify the USFWS and CDFG within 24 hours, as required by the permits.

Reporting. A weekly memo will be submitted to Parsons Brinckerhoff and subsequently forwarded to Caltrans each Wednesday, summarizing the monitoring activities and observations made of the target species during the previous week.

Bird Monitoring - Bay Bridge East Span Project

Construction Contract: _____	Date: _____	Start time: _____
Observers: _____	Survey type: Boat / Land	Stop time: _____
Construction Activities¹: _____	Cloud cover (%): _____	Wind (Beaufort): _____
_____	Temp (F): _____	Tide²: _____

Species	Tally of Individuals	Total	Distance to Construction ³	Behavior/Activity ⁴
Calif. Least Tern (LETE) (Status ⁵ : FE, SE, FP)				
Brown Pelican (BRPE) (Status ⁵ : FE, SE, FP)				
Peregrine Falcon (PEFA) (Status ⁵ : SE, FP)				
Double-crested cormorant (DCCO) (Status ⁵ : CSC)	Observations⁶			
Western Gull (WEGU)	Observations⁶			

Notes: _____

¹ DR = Dredging; PD = Pile Driving; DEM = Demolition; EQ = equipment traffic

² Tide: record the tide level at the Start Time and Stop Time, and the peak (high or low) tide during the survey.
Use MLLW datum (in feet).

³ Record approximate distance from construction site for every sighting (in meters; 500+ = 500 to 1000 meters).

⁴ FO = fly over; F = foraging; R = resting; PR = pair; N = at a nest; FC = carrying food; FL = fledglings;
AV = avoidance of construction activity.

⁵ FE = Federally Endangered; SE = State Endangered; FP = State Fully Protected; CSC = State Species of Special Concern

⁶ Nesting behavior and responses to construction activities.

