

# San Francisco Bay Conservation and Development Commission

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## Agenda Item #8

May 8, 2020

## Application Summary

### Bay Bridge Shorebird Roosting Habitat Mitigation Modification

(For Commission consideration on May 21, 2020)

|                                        |                                                                                                                                                                                                                                                                                       |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Permit Application Number:</b>      | 2001.008.46 (Material Amendment No. Forty-Six)                                                                                                                                                                                                                                        |
| <b>Applicant:</b>                      | California Department of Transportation (Caltrans)                                                                                                                                                                                                                                    |
| <b>Project Description:</b>            | Modify the original mitigation requirements for the San Francisco–Oakland Bay Bridge East Span Seismic Safety Project to require off-site, fee-based mitigation to provide for shorebird roosting habitat, in lieu of the existing requirement to construct a rock island in the Bay. |
| <b>Application Filed Complete:</b>     | May 4, 2020                                                                                                                                                                                                                                                                           |
| <b>Deadline for Commission Action:</b> | August 2, 2020                                                                                                                                                                                                                                                                        |
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Figure 1. Oakland Touchdown Under Construction, Circa 2012 (Source: [baybridgeinfo.org](http://baybridgeinfo.org))

## Project Overview

### Requested Permit Modification

Caltrans proposes to modify a mitigation requirement in the BCDC permit that authorized construction of the new Bay Bridge East Span, which was issued in 2001. That permit included a number of mitigation measures to offset anticipated environmental impacts associated with construction of the bridge. Among these mitigation measures was a requirement to construct 500 square feet of shorebird roosting habitat near the bridge's Oakland Touchdown. Caltrans has determined that construction of the originally-selected mitigation project, a riprap island in the Bay, would be infeasible, as would any other on-site mitigation. Caltrans therefore is requesting that the permit be modified to allow it to contribute \$775,000 in in-lieu funds toward an off-site mitigation project—either the East Island shorebird roosting habitat project at East Bay Regional Park District's (EBRPD) MLK Jr. Regional Shoreline, or another project selected by the State Coastal Conservancy.

### Background and History

The mitigation measure from the original permit required Caltrans to develop and implement a plan to construct 500 square feet of shorebird habitat in the Emeryville Crescent and at other suitable areas near the Oakland Touchdown. This plan was to be implemented prior to opening the eastbound roadway of the new East Span to vehicular traffic (which occurred in 2013).

Caltrans subsequently assessed on-site mitigation options and, in 2004, selected a preferred concept to construct a riprap island in the Bay north of the Oakland Touchdown. The island would have created 500 square feet of shorebird roosting habitat above mean sea level, and required 734 cubic yards and 4,047 square feet of fill in the Bay. BCDC issued Amendment No. Twelve to this permit in 2005 to allow for construction of the rock island.

Through the design process for the riprap island in 2007-08, concerns emerged regarding resiliency of the island to sea level rise. Caltrans considered modifying the island design to raise its elevation and enhance its resilience, but found that this modification would require significant additional fill, potentially resulting in subsidence and failure of the riprap island given the soft Bay mud at the site. Enlarging the riprap island also raised concerns regarding potential impacts to Bay resources including special aquatic sites (i.e., eelgrass beds) and fish habitat including Critical Habitat for listed salmonids and Green Sturgeon and Essential Fish Habitat for federally managed commercial fish species.

### Alternatives Considered

In the intervening years, Caltrans has worked with stakeholders and Commission staff to find a suitable alternative onsite mitigation project. Among the alternatives considered were various other structures besides a rock island that would provide for shorebird roosting habitat at the project site, such as an island of a different design, a pile-supported platform, a floating platform, extending the shoreline, or reusing a pier of the former bridge. However, each of these alternatives was ultimately rejected as infeasible due to a variety of factors, including impacts to Bay resources, sea level rise resilience, uncertainty of habitat success, and long-term



maintenance concerns. Caltrans also explored partnering with EBRPD to create habitat at the future Judge John Sutter Regional Shoreline (formerly known as Gateway Park) or the Emeryville Crescent. However, the shoreline park is still in early stages of planning and design, thus no immediate opportunities exist to implement the mitigation as part of that project.

Given the practical and policy-related concerns raised by on-site mitigation, between 2010 and the present, Caltrans considered 11 off-site shorebird roosting habitat mitigation projects that might serve as alternative means of providing in-lieu, fee-based mitigation. These alternatives included opportunities for shorebird habitat creation as part of projects at the Berkeley Pier, Albany Beach, Hayward Regional Shoreline, EBRPD-managed sites (East Island at MLK Jr. Regional Shoreline, East Shore State Park, Brooks Island, Crown Beach, and Point Isabel), Port of San Francisco's Pier 64, Oakland Middle Harbor, or through a fund transfer to the State Coastal Conservancy (Figure 2). The majority of these options were found to be undesirable or infeasible, due to objections from stakeholders, legal or logistical issues, unsuitable conditions, or lack of partnership options. However, Caltrans found that two options were viable: the EBRPD East Island project, and contributing funds to the State Coastal Conservancy, which would in turn grant funds to a future project.



Figure 2. Off-Site Mitigation Alternative Locations Considered

### Proposed Fee-Based Mitigation

In lieu of completing on-site shorebird roosting habitat mitigation as currently required in the permit, the applicant proposes to provide \$775,000 to EBRPD to design, plan, permit, and construct a habitat enhancement project at East Island, an existing shorebird roosting island at MLK Jr. Regional Shoreline in Oakland. The fee would also provide for three years of monitoring and maintenance.

The intent of the habitat enhancement project at East Island is to greatly improve the quality and function of the habitat it currently provides, and also to prolong its utility by making it resilient to rising sea levels. The project would cut material from approximately half of the existing East Island to create wetland habitat, and use the excavated material to increase the elevation of the other half of the island for sea level rise resilience. The elevated island would be enhanced with sand and oyster shells to improve habitat conditions and create approximately 20,000 square feet of high-tide refuge habitat for a variety of shorebirds, of which 5,000 square feet would be resilient to projected sea level rise to the end of the century. Additionally, the project would create approximately 24,000 square feet of new tidal marsh and shorebird forage habitat. BCDC has not yet received an application for the East Island project, and any action it takes to modify Caltrans' mitigation requirement here would not bind the Commission to a specific future action regarding the East Island project.

As part of its application, Caltrans provided the following table to summarize the anticipated benefits of the existing requirement to construct a rock island north of the Oakland Touchdown, versus the proposed East Island project:

|                                              | Required Rock Island Mitigation Option                                                                                                                                                           | Proposed East Island Offsite Mitigation Option                                                                                                                                 |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Habitat at Fill Location</b>              | Bay waters near eelgrass beds                                                                                                                                                                    | Ruderal Shoreline Band                                                                                                                                                         |
| <b>Fisheries Impact</b>                      | Likely substantial                                                                                                                                                                               | Not likely                                                                                                                                                                     |
| <b>Shorebird Habitat Creation</b>            | 500 square feet above Mean Sea Level (MSL). Sea level rise resiliency is unknown due to risk of subsidence and could require routine additional fill placement to maintain any design elevation. | ~20,000 square feet above MSL (40 times greater than the currently required SFOBB mitigation) of which ~5,000 square feet would be resilient to end of century sea level rise. |
| <b>Tidal Waters or Wetland Restoration</b>   | No creation or restoration. Loss of 500 square feet of surface waters. 4,047 square feet of fill placed on sandy Bay floor habitat.                                                              | Yes, creation of ~24,000 square feet of tidal marsh habitat.                                                                                                                   |
| <b>New Fill or In-Situ Beneficial Re-Use</b> | New rock fill (rip rap)                                                                                                                                                                          | Beneficial re-use of in-situ Bay mud material                                                                                                                                  |

Should the East Island Project fail to be completed within the specified timeframe (December 31, 2025), the applicant proposes to provide the full \$775,000 fee to the State Coastal Conservancy, which would hold the funds and then ultimately disburse the funds toward an appropriate alternative project to benefit shorebird habitat in the Bay Area.

## Issues Raised

The staff believes the primary issue raised by the proposed amendment is whether modifying the permit to allow Caltrans to provide off-site, fee-based mitigation is consistent with the Commission's law and policies, particularly with regard to the San Francisco Bay Plan policies on Mitigation. With regard to fee-based mitigation, **Bay Plan Mitigation Policy No. 12** states:

*The Commission may allow fee-based mitigation when other compensatory mitigation measures are infeasible. Fee-based mitigation agreements should include:*

- (a) identification of a specific project that the fees will be used for within a specified time frame;*
- (b) provisions for accurate tracking of the use of funds;*
- (c) assignment of responsibility for the ecological success of the mitigation project;*
- (d) determination of fair and adequate fee rates that account for all financial aspects of the mitigation project, including costs of securing sites, construction costs, maintenance costs, and administrative costs;*
- (e) compensation for time lags between the adverse impact and the mitigation; and*
- (f) provisions for long-term maintenance, management and protection of the mitigation site.*