

DRAFT EIR

RESPONSES TO COMMENTS

RTC

# San Francisco International Airport Shoreline Protection Program

San Francisco Planning  
Case No. **2020-004398ENV**

State Clearinghouse No. 2020110456

*Draft EIR Publication Date:* August 31, 2022

*Draft EIR Public Hearing Date:* October 6, 2022

*Draft EIR Public Comment Period:* September 1, 2022–October 17, 2022

*Final EIR Certification Hearing Date:* June 1, 2023



**San Francisco**  
**Planning**



## MEMORANDUM

*Date:* May 17, 2023  
*Case No.:* **2020-004398ENV**  
*Project Title:* **San Francisco International Airport Shoreline Protection Program**  
*To:* Members of the Planning Commission and Interested Parties  
*From:* Lisa Gibson, Environmental Review Officer  
*Re:* Attached Responses to Comments on Draft Environmental Impact Report for the San Francisco International Airport Shoreline Protection Program (Planning Department File No. 2020-004398ENV)

Attached for your review please find a copy of the responses to comments document for the draft environmental impact report (EIR) for the above-referenced project. This document, along with the Draft EIR, will be before the planning commission for final EIR certification on June 1, 2023. The planning commission will receive public testimony on the final EIR certification at the June 1, 2023, hearing. Please note that the public review period for the Draft EIR ended on October 17, 2022. Comments received after the close of the public review period or at the final EIR certification hearing will not be responded to in writing. The agenda for the June 1, 2023, planning commission hearing showing the start time and order of items at the hearing will become available at <https://sfplanning.org/hearings-cpc-grid>, by close of business Friday, May 26, 2023.

The planning commission does not conduct a hearing to receive comments on the responses to comments document, and no such hearing is required by the California Environmental Quality Act. Interested parties, however, may always write to commission members or to the president of the commission at [commissions.secretary@sfgov.org](mailto:commissions.secretary@sfgov.org) (preferred) or 49 South Van Ness Avenue, Suite 1400, and express an opinion on the responses to comments document, or the commission's decision to certify the Final EIR for this project.

This document, along with the Draft EIR, constitute the final EIR. The Draft EIR may be downloaded from <https://sfplanning.org/environmental-review-documents>. If you have any questions concerning the responses to comments document or the environmental review process, please contact Tania Sheyner, EIR coordinator, at [cpc.sfosppeir@sfgov.org](mailto:cpc.sfosppeir@sfgov.org) or 628.652.7578.

Thank you for your interest in this project and your consideration of this matter.

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DRAFT EIR

RESPONSES TO COMMENTS

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# San Francisco International Airport Shoreline Protection Program

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**San Francisco**  
**Planning**

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Attachment B	Draft EIR Comment Letters and Emails
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# CHAPTER 1

## INTRODUCTION

### 1.A Purpose of the Responses to Comments Document

The purpose of this responses to comments (RTC) document is to present comments received on the draft environmental impact report (Draft EIR) for the proposed San Francisco International Airport (SFO) Shoreline Protection Program (proposed project), to respond in writing to comments on environmental issues, and to revise the Draft EIR as necessary to provide additional clarity. Pursuant to the California Environmental Quality Act (CEQA) section 21091(d)(2)(A) and (B), the San Francisco Planning Department (planning department) has considered the comments received on the Draft EIR, evaluated the issues raised, and is providing written responses that address each substantive environmental issue that has been raised by the commenters. In accordance with CEQA, the responses to comments focus on addressing physical environmental effects associated with the proposed project. Such effects include physical impacts or changes attributable to the proposed project.

None of the comments received provide new information that warrants recirculation of the Draft EIR. The comments do not identify new significant impacts or a substantial increase in the severity of previously identified impacts. Furthermore, they do not identify any feasible project alternatives or mitigation measures that are considerably different from those analyzed in the Draft EIR and/or that the project sponsor has not agreed to implement.

The Draft EIR together with this RTC document constitutes the Final EIR for the proposed project in fulfillment of CEQA requirements and consistent with CEQA Guidelines section 15132. The Final EIR has been prepared in compliance with CEQA, including the CEQA Guidelines and San Francisco Administrative Code chapter 31. It is an informational document for use by (1) governmental agencies (such as the City and County of San Francisco) and the public to aid in the planning and decision-making process by disclosing the physical environmental effects of the project and identifying possible ways of reducing or avoiding the potentially significant impacts and (2) the San Francisco Planning Commission (planning commission) and other City entities (such as the San Francisco Board of Supervisors), where applicable, prior to their decisions to approve, disapprove, or modify the proposed project. The Airport Commission is the City entity that will approve the proposed project and adopt the CEQA findings. If the Airport Commission and other City entities approve the proposed project, they would be required to adopt CEQA findings and a mitigation monitoring and reporting program (MMRP) to ensure that mitigation measures identified in the Final EIR are implemented.

### 1.B Environmental Review Process

#### 1.B.1 Notice of Preparation

The planning department, as lead agency responsible for administering the environmental review of projects within the City and County of San Francisco under CEQA, published a notice of preparation (NOP) of an EIR on November 25, 2020 (included as Appendix A in the Draft EIR), to inform agencies and the general public that the Draft EIR would be prepared based upon the criteria of CEQA Guidelines sections 15064



## **1. Introduction**

### **1.B. Environmental Review Process**

(Determining Significant Effects) and 15065 (Mandatory Findings of Significance). A notice of availability of the NOP and/or the NOP was sent to the State Clearinghouse and to governmental agencies, organizations, and persons who may have an interest in the proposed project. A public scoping meeting was held remotely on December 9, 2020, to explain the environmental review process for the proposed project and to provide an opportunity to take public comment and concerns related to the proposed project's environmental issues. A subsequent video of the NOP presentation and scoping meeting was accessible on the [sfplanning.org/sfceqadocs](https://sfplanning.org/sfceqadocs) webpage and the planning department's YouTube webpage for the duration of the NOP comment review period. The NOP announcement also was placed in a newspaper of general circulation in the project area.

#### **1.B.2 Draft EIR**

The planning department prepared the Draft EIR for the proposed project in accordance with CEQA, the CEQA Guidelines, and San Francisco Administrative Code chapter 31. The Draft EIR was published on August 31, 2022. An initial study was attached to the Draft EIR (Appendix B). The Draft EIR was circulated for a 45-day public review and comment period, starting on September 1, 2022, and ending on October 17, 2022.

The planning department distributed paper copies of the notice of public hearing and availability of the Draft EIR to relevant state and regional agencies, organizations, and persons interested in the proposed project, including those listed on the planning department's and SFO's standard distribution lists. The planning department also distributed the notice electronically, using email, to recipients who had provided email addresses; published notification of its availability in a newspaper of general circulation in the project area; and posted the Notice of Public Hearing and Availability of the EIR at the County Clerk's office and in the lobby of Building 674 in the West Field area of the Airport. Paper copies of the Draft EIR were provided for public review at the San Francisco Permit Center, 49 South Van Ness Avenue, 2nd Floor, San Francisco, CA 94103. Electronic copies of the Draft EIR were made available for review or download on the planning department's [sfplanning.org/sfceqadocs](https://sfplanning.org/sfceqadocs) webpage.

During the Draft EIR public review period, the planning department received written comments from seven agencies and two individuals.

During the public review period, the planning commission conducted a public hearing to receive oral comments on the Draft EIR on October 6, 2022. Due to the COVID-19 emergency, this hearing was held in a hybrid format that included both in-person and remote attendees. A court reporter attended the public hearing remotely to transcribe the oral comments verbatim and provide a written transcript (Attachment A).

Two separate but related comments from a single individual that addressed technical difficulties and other concerns pertaining to the public hearing for the Draft EIR were submitted via voicemail to SFO and the planning department, respectively. Transcriptions of these voicemail comments are included in this RTC document.

Attachment B of this RTC document includes copies of the comment letters, emails, and transcribed voicemails submitted to the planning department and SFO on the Draft EIR and public hearing.



### 1.B.3 Responses to Comments Document and Final EIR

The comments received during the public review period are the subject of this RTC document, which addresses all substantive written and oral comments on the Draft EIR. Under CEQA Guidelines section 15201, members of the public may comment on any aspect of the project. Furthermore, CEQA Guidelines section 15204(a) states that the focus of public review should be on “the sufficiency of the [Draft EIR] in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated.” In addition, “when responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR.” As discussed above, CEQA Guidelines section 15088 specifies that the lead agency is required to respond to comments that raise significant environmental issues during the public review period. Therefore, this RTC document is focused on the sufficiency and adequacy of the Draft EIR with respect to disclosing the significance of the physical environmental impacts of the proposed project evaluated in the Draft EIR.

The planning department distributed this RTC document for review to the planning commission, as well as to persons who commented on the Draft EIR. The planning commission will consider the adequacy of the Final EIR, consisting of the Draft EIR and the RTC document, with respect to complying with the requirements of CEQA, the CEQA Guidelines, and San Francisco Administrative Code chapter 31. If the San Francisco Planning Commission finds that the Final EIR is adequate, accurate, complete and in compliance with CEQA requirements, it will certify the Final EIR. The Airport Commission will then consider the associated MMRP as well as the requested approvals for the proposed project.

Consistent with CEQA Guidelines section 15097, the MMRP is designed to ensure implementation of the mitigation measures identified in the Final EIR and adopted by decision makers to mitigate or avoid the proposed project’s significant environmental effects. CEQA also requires the adoption of findings prior to approval of a project for which an EIR has been certified. Because the Draft EIR identified one significant adverse impact that cannot be mitigated to a less-than-significant level, the Airport Commission must adopt findings that include a statement of overriding considerations for that significant and unavoidable impact, should they approve the proposed project (CEQA Guidelines section 15093(b)). The project sponsor is required to implement the MMRP as a condition of project approval.

## 1.C Document Organization

This RTC document consists of the following sections and attachments, as described below:

- **Chapter 1, Introduction**, discusses the purpose of the RTC document, the environmental review process for the EIR, and the organization of the RTC document.
- **Chapter 2, List of Persons Commenting**, presents the names of persons who provided comments on the Draft EIR during the public comment period. The list is organized into the following groups: public agencies and commissions, organizations, and individuals.
- **Chapter 3, Comments and Responses**, presents substantive comments, excerpted verbatim from a transcript of the hybrid planning commission public hearing and written correspondence. The complete transcript as well as the letters and emails with the comments are provided in Attachments A and B of this RTC document. The comments and responses in this section are organized by topic and, where appropriate, by subtopic, including the same environmental topics addressed in Chapter 4 of the Draft

## 1. Introduction

### 1.C. Document Organization

EIR and Section E of the initial study. Following each comment or group of comments on a topic are the planning department's responses. The responses generally clarify the text in the Draft EIR. In some instances, the responses may result in revisions or additions to the Draft EIR. Text changes are shown as indented text, with deleted material shown as ~~strike through~~ text and new text double underlined.

- **Chapter 4, Draft EIR Revisions**, presents staff-initiated text changes to the Draft EIR that were made by the planning department to update, correct, or clarify the text of the Draft EIR. These changes do not result in significant new information with respect to the proposed project, including the level of significance of project impacts or any new significant impacts. Therefore, recirculation of the Draft EIR, pursuant to CEQA Guidelines section 15088.5, is not required.
- **Attachments**
  - Attachment A – Draft EIR Public Hearing Transcript
  - Attachment B – Draft EIR Comment Letters and Emails
  - Attachment C – Technical Support Documentation for Final EIR Response AQ-1

# CHAPTER 2

## REVISIONS TO THE PROJECT DESCRIPTION

### 2.A Introduction

Since publication of the Draft EIR, the project sponsor has initiated minor revisions to the proposed project as described in Draft EIR Chapter 2, Project Description. This chapter summarizes these minor revisions, describes updates to the text in the Draft EIR (deletions are shown in ~~striketrough~~; new text is double underlined), and describes the environmental impacts of the revisions. Draft EIR text revisions are presented in this chapter only where they have been made specifically in EIR Chapter 2. Text revisions in other portions of the EIR that are updated as a result of these changes are presented in RTC Chapter 5, Draft EIR Revisions.

The revisions update the information in the Draft EIR. The revisions do not provide new information that would result in any new significant impacts that were not already identified in the Draft EIR, nor would these changes increase the severity of any of the proposed project's impacts identified in the Draft EIR. Mitigation measures identified in the Draft EIR would continue to be required in order to reduce or avoid significant environmental impacts. No new mitigation measures beyond those already identified in the Draft EIR would be required to mitigate the significant impacts identified for the proposed project.

CEQA Guidelines section 15088.5 requires recirculation of an EIR when “significant new information” is added to the EIR after publication of the draft EIR but before certification. The CEQA Guidelines states that information is “significant” if “the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project proponents have declined to implement.” Section 15088.5 further defines “significant new information” that triggers a requirement for recirculation as including, but not limited to, identification of a new significant impact, of a substantial increase in the severity of an impact (unless mitigation is adopted to reduce the impact to a less-than-significant level), or of a new feasible alternative or mitigation measure that would lessen the environmental impacts of the proposed project that the project sponsor is unwilling to adopt. CEQA Guidelines section 15088.5(b) states that recirculation is not required if “new information in the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.”

As described below, the revisions and clarifications to the proposed project would not introduce new characteristics or substantially modify previously proposed characteristics that would result in any new significant impacts not already identified for the proposed project studied in the Draft EIR, nor would these changes increase the severity of any identified significant impacts.

## 2.B Project Description Revision: Extension of the Runway 19L Lighting Trestle

There is one revision to the proposed project; the extension of the Runway 19L lighting trestle.

As described on Draft EIR p. 2-41, the proposed project would include demolition and reconstruction of the existing approach lighting trestle at the end of Runway 19L to be approximately 4.5 feet taller in order to accommodate construction of Reach 7 and to ensure that the proposed shoreline protection system would not obstruct the navigation light plane from the approach lights. Since publication of the Draft EIR, the Airport has further advanced the design of the reconstructed lighting trestle and determined that an extension of approximately 1,000 feet would be necessary to support landings in poor visibility with an upgraded approach lighting system. Therefore, the proposed project is revised to include an approximately 1,000-foot longer reconstructed Runway 19L lighting trestle than was evaluated in the Draft EIR. This modification would not result in a substantial change to the construction characteristics (i.e., construction duration, number and type of equipment required, intensity of equipment operations). The air quality nitrogen oxide (NO<sub>x</sub>) emissions associated with the demolition and reconstruction of the lighting trestle as analyzed in the Draft EIR account for approximately 123.3 pounds per day of the total emissions in 2028, the year for which demolition and reconstruction of the lighting trestle is anticipated. Extending the length of the lighting trestle by 1,000 feet would increase the amount of NO<sub>x</sub> emissions by 16.4 pounds per day, which would result in an overall increase to 139.7 pounds per day in 2028, which constitutes a 13 percent increase in NO<sub>x</sub> emissions.

## 2.C Draft EIR Revisions

### PAGE 2-6, FIRST PARAGRAPH, PENULTIMATE SENTENCE, NEW FOOTNOTE ADDED

... However, in 2020, based on a report released by the California Natural Resources Agency with updated guidance regarding planning for sea-level rise, SFO increased the height of the proposed shoreline protection system by 6 inches to accommodate up to 66 inches of sea-level rise during a 100-year flood.<sup>33,34</sup> ...

<sup>34</sup> The sections for each reach, such as Figure 2-5 for Reach 1, display the '42" SLR Design Elevation', which represents the 100-year flood elevation plus FEMA freeboard (24 inches) plus 42 inches for sea-level rise adaptation, for a total of 66 inches above the present-day 100-year flood elevation.

### PAGE 2-41, FIRST FULL PARAGRAPH

To accommodate construction of Reach 7, the existing approach lighting trestle at the end of Runway 19L would be demolished, and a new lighting trestle would be constructed. Reconstructing the lighting trestle would be necessary to ensure that the proposed shoreline protection system would not obstruct the navigation light plane from the approach lights, which facilitates aircraft arrivals on Runway 19L. Therefore, the proposed project would construct a new approximately 4.5-foot-taller, 1,000-foot longer lighting trestle in approximately the same location as the existing lighting trestle, remove the existing approach lights, demolish the existing lighting trestle, and remove the existing wood piles in the bay that support the lighting trestle (see **Figure 2-25**). The Airport assumes temporary interruption of operations on Runway 19L would occur during construction of the lighting trestle and testing of the reinstalled approach lighting system.

\* **PAGE 2-42, FIGURE 2-25**

- Figure 2-25 has been revised to show the extended lighting trestle; the revised figure is provided in RTC Chapter 5, Draft EIR Revisions.

**PAGE 4.D-40, FIRST PARAGRAPH**

Operational activities for the proposed project are unlikely to affect nesting birds, given the existing, baseline levels of human, vehicular, and air traffic disturbance at the Airport, and because the proposed shoreline protection system and extended lighting trestle would not increase levels of disturbance relative to these baseline operations. Birds nesting in these areas are assumed to be habituated to such disturbance. Therefore, operational impacts on nesting birds from human disturbance would be ***less than significant***.

**PAGE 4.D-41, LAST PARAGRAPH**

Operational activities from the proposed project are unlikely to indirectly affect roosting bats, given the baseline levels of human and transportation disturbance at the Airport, and because the proposed shoreline protection system and extended lighting trestle would not increase levels of disturbance relative to these baseline operations. Bats roosting in these areas are assumed to be habituated to such disturbance. Therefore, operational impacts on roosting bats from human disturbance would be ***less than significant***.

## 2.D Environmental Impacts

The minor modification described in RTC Section 2.B above would not result in changes to the analysis or conclusions described in the Draft EIR assessment of environmental impacts of the proposed project as presented in Draft EIR Chapter 4, Environmental Setting, Impacts, and Mitigation Measures, and Draft EIR Appendix B (initial study) with respect to any resource topics. The significant and unavoidable air quality impact would remain and is discussed below.

### AIR QUALITY

As described under Impact AQ-3 in Section 4.C, Air Quality, pp. 4.C-34 through 4.C-57, of the Draft EIR, the proposed project would result in a maximum of 216.2 pounds per day of NO<sub>x</sub>. This maximum impact would occur during the first year of construction anticipated to be in year 2025. Additionally, NO<sub>x</sub> emissions would remain above significance thresholds through 2028. The primary source of NO<sub>x</sub> emissions is from marine vessels. Even with implementation of Mitigation Measures M-AQ-3a, M-AQ-3b, M-AQ-3c, M-AQ-3d, and M-AQ-3e, the residual impact of the proposed project related to a cumulatively considerable net increase in criteria air pollutants from NO<sub>x</sub> emissions is considered significant and unavoidable. The extension of the reconstructed Runway 19L lighting trestle by approximately 1,000 feet beyond its currently proposed length into the bay would not substantially change construction characteristics (i.e., construction duration, number and type of equipment required, intensity of equipment operations). As noted above, extending the length of the lighting trestle by 1,000 feet would increase the amount of NO<sub>x</sub> emissions by 16.4 pounds per day, which would result in an overall increase to 139.7 pounds per day in 2028, which constitutes a 13 percent increase in NO<sub>x</sub> emissions. As such, the extension of the lighting trestle would not result in a substantial change to the emission of criteria air pollutants for which the proposed project area is in non-attainment under an applicable federal or state ambient air quality standard. The construction-related air quality impacts would remain significant and unavoidable as described in Section 4.C, Air Quality, of the Draft EIR.

## 2. Introduction

### 2.D. Environmental Impacts

As discussed above, the primary source of NO<sub>x</sub> emissions is from marine vessels, and even with implementation of the mitigation measures, the residual impact of the proposed project related to a cumulatively considerable net increase in criteria air pollutants from NO<sub>x</sub> emissions is considered significant and unavoidable. Mitigation Measures M-AQ-3a, M-AQ-3b, M-AQ-3c, M-AQ-3d, and M-AQ-3e that were identified in the Draft EIR to mitigate this significant and unavoidable impact would be applicable as stated in the Draft EIR and do not need to be modified to reflect this change because they are not dependent on specific emissions reductions.

## OTHER TOPICS

With respect to the less-than-significant and less-than-significant-with-mitigation impacts identified in the Draft EIR, those associated with aesthetics, biological resources, geology and soils, and hydrology and water quality, which are most relevant to the proposed extension of the reconstructed Runway 19L lighting trestle, are discussed below.

- **Aesthetics:** Impacts related to aesthetics were analyzed in Section E.2, Aesthetics, of the initial study (see Draft EIR Appendix B) and were determined to be less than significant. The extension of the reconstructed lighting trestle at the end of Runway 19L by approximately 1,000 feet would not result in changes to the assumptions, analysis, or conclusions related to effects on a scenic vista, as the lighting trestle would not be visible from publicly accessible vantage points, nor would it substantially increase blockage of scenic vistas or substantially degrade the existing visual character or quality of public views of the site and its surroundings. The extended lighting trestle would be in the same general location as the existing lighting trestle and would include approach lights that would be positioned 7 feet higher than the existing approach lights to ensure they remain visible to aircraft arrivals following installation of the proposed shoreline protection system. However, the bulb intensity and orientation of the lamps would not differ substantially from those used on the current lighting trestle, as discussed on p. 4.D-57; therefore, the proposed project would not result in a new source of substantial light or glare that would adversely affect day or nighttime views in the area. For these reasons, impacts related to aesthetics regarding the extension of the reconstructed lighting trestle would remain less than significant.
- **Biological Resources:** Potential impacts to wildlife, particularly migratory birds, associated with nighttime lighting for construction of the lighting trestle; the location, orientation, and intensity of the lamps on the new lighting trestle; and the timing and technique for installing support piles, each of which was analyzed in Draft EIR Section 4.D, Biological Resources, would not change substantially with the extension of the lighting trestle. As discussed on Draft EIR p. 4.D-57, the lighting trestle at Reach 7 would include approach lights that would be positioned 7 feet higher than the existing approach lights to ensure they remain visible to aircraft arrivals following installation of the proposed shoreline protection system; however, the bulb intensity and orientation of the lamps would not differ substantially from those used on the current lighting trestle. As further discussed on Draft EIR p. 4.D-57, impacts related to new sources of light and glare during construction would be temporary and limited to the construction site. Temporary increases in nighttime lighting for construction would not be out of context with the existing conditions, given the high levels of nighttime activity that occur at the Airport (e.g., departing and arriving airplanes, use of runway and taxiway lighting, and operation of the lighting trestles off the ends of the runways). Regarding operational impacts, the bulb intensity and orientation of the lamps on the extended lighting trestle would not differ substantially from those used on the current lighting trestle. Therefore, even with the extension of the lighting trestle by an additional 1,000 feet into the bay, construction and operational impacts on migratory birds would be less than significant. Therefore, with implementation of the mitigation measures presented in the Draft EIR, potential impacts to biological

resources associated with the extended lighting trestle would still be reduced to a less-than-significant level.

- **Geology and Soils:** The extended lighting trestle would not directly cause increased risk associated with seismic hazards at the airport. To support the trestle, seismic ground improvements beyond those discussed in Impact GE-1 would not be required. The Airport Building Inspection and Code Enforcement Section would review designs for all new structures, including the extended trestle, for compliance with California Building Code requirements to confirm that all Airport buildings and structures are constructed in conformance with applicable codes to safeguard the public health, safety, and general welfare. For these reasons, impacts related to the extended lighting trestle would remain less than significant.
- **Hydrology and Water Quality:** The lighting trestle, as originally proposed, was included in the coastal hydraulics modeling of bay currents and waves. This modeling indicated that the trestle had a negligible effect on the bed shear stresses generated by these physical processes, and hence, negligible potential for impact on bed sediments. Therefore, with implementation of the mitigation measures presented in the Draft EIR, potential impacts to hydrology and water quality associated with the extended lighting trestle would still be reduced to a less-than-significant level.

The revisions to the proposed project would not result in any new significant impacts that were not already identified in the Draft EIR, nor would this change substantially increase the severity of any impacts identified in the Draft EIR. The mitigation measures identified in the Draft EIR for the proposed project for topics not discussed above, including archeological resources, tribal cultural resources, and noise, would continue to be required to reduce or avoid the significant environmental impacts of the revised proposed project. No new or modified measures would be required to mitigate the significant impacts identified for the proposed project in the Draft EIR. Therefore, references to the proposed project in this RTC document, including Chapter 5, Draft EIR Revisions, shall be interpreted to include and incorporate the revised proposed project, unless otherwise noted.



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# CHAPTER 3

## LIST OF PERSONS COMMENTING

### 3.A Public Agencies and Commissions and Individuals Commenting on the Draft EIR

This RTC document includes responses to all comments received on the Draft EIR, including written comments submitted by letter or email, as well as oral comments presented at the public hearing that was held on October 6, 2022, and submitted via voicemail to SFO and the planning department. This section lists all public agencies and commissions and individuals who submitted comments on the Draft EIR. **RTC Table 3-1** lists the commenters' names, along with the corresponding commenter codes used in Chapter 3, Comments and Responses, to denote each set of comments received by category and date received by the planning department. Oral comments given at the planning commission hearing are included in Attachment A, Draft EIR Hearing Transcript. All written and oral comments submitted on the Draft EIR are included in Attachment B, Draft EIR Comment Letters and Emails.

- Comments from public agencies and commissions are designated by "A-" and the agency's name or acronym.
- Comments from individuals are designated by "I-" and the commenter's last name.

**RTC Table 3-1 Persons Commenting on the Draft EIR**

Comment Letter Code	Name and Title of Commenter	Agency/Organization	Comment Format	Comment Date
<b>PUBLIC AGENCIES AND COMMISSIONS</b>				
A-BAAQMD	Greg Nudd, Deputy Air Pollution Control Officer	Bay Area Air Quality Management District	Letter	10/17/2022
A-BCDC	Anniken Lydon, Bay Resources Program Manager	San Francisco Bay Conservation and Development Commission	Letter	10/17/2022
A-Caltrans	Mark Leong, District Branch Chief, Local Development Review	California Department of Transportation, District 4	Letter	10/17/2022
A-CDFW	Becky Ota, Habitat Conservation Program Manager, Marine Region	California Department of Fish and Wildlife	Letter	10/21/2022
A-Millbrae	Unsigned	City of Millbrae	Letter	10/17/2022
A-OneShoreline	Len Materman, Chief Executive Officer	OneShoreline (San Mateo County Flood and Sea Level Rise Resiliency District)	Letter	10/17/2022
A-SamTrans	Christy Wegener, Director of Planning	San Mateo County Transit District	Letter	10/17/2022

### 3. List of Persons Commenting

#### 3.A. Public Agencies and Commissions and Individuals Commenting on the Draft EIR

Comment Letter Code	Name and Title of Commenter	Agency/Organization	Comment Format	Comment Date
<b>INDIVIDUALS</b>				
I-Schneider1	Ann Schneider	—	Voicemail	10/6/2022
I-Schneider2	Ann Schneider	—	Letter	10/17/2022
I-Schneider3	Ann Schneider	—	Voicemail	10/6/2022 (transcribed 11/1/2022)
I-Zeppetello	Marc Zeppetello	—	Letter	10/17/2022
<b>PUBLIC HEARING</b>				
A-CPC-Diamond	Sue Diamond, Commissioner	San Francisco Planning Commission	Public Hearing	10/6/2022

# CHAPTER 4

## COMMENTS AND RESPONSES

### 4.A Introduction

This chapter presents the substantive comments received on the Draft EIR and initial study and responses to those comments. The comments and responses are organized by subject and are generally in the same order as presented in the Draft EIR and initial study. General comments on the EIR, including comments on the merits of the San Francisco International Airport Shoreline Protection Program, are grouped together at the end of the chapter. The order of the comments and responses in this chapter is shown in **RTC Table 4-1**, along with the corresponding section number, prefix to the topic code, and page of this chapter on which the comments and responses start.

**RTC Table 4-1 Comment Organization**

Section	Topic	Topic Code	Page No.
4.B	Project Description	PD	4-2
4.C	Plans and Policies	PP	4-11
4.D	Historic Resources	CR	4-14
4.E	Noise and Vibration	NO	4-15
4.F	Air Quality	AQ	4-26
4.G	Biological Resources	BI	4-33
4.H	Geology and Soils	GE	4-51
4.I	Hydrology and Water Quality	HY	4-52
4.J	Alternatives	AL	4-59
4.K	Land Use and Planning	LU	4-65
4.L	Transportation and Circulation	TR	4-66
4.M	Recreation	RE	4-70
4.N	General Comment	GC	4-70

Within each topic, similar comments are grouped together under subheadings, designated by a topic code and sequential number. For example, the comments in Section 4.N, General Comments, coded as “GC,” are organized under subheadings GC-1 through GC-10.

Under each subheading, the applicable comments are listed by comment code, as described in Chapter 3, List of Persons Commenting. Each comment is then presented verbatim and concludes with the commenter’s name and, if applicable, title and affiliation; the comment source (i.e., public hearing transcript, letter, email); and the comment date. Following each comment or group of comments, a

#### 4. Draft EIR Revisions

##### 4.B. Project Description [PD]

comprehensive response is provided to address physical environmental issues raised in the comments and clarify or augment information in the Draft EIR, as appropriate. Response numbers correspond to the topic code; for example, the response to Comment PD-1 is presented under Response PD-1. The responses may clarify the Draft EIR text or revise or add text to the Final EIR. New or revised text, including text changes initiated by planning department staff, is double underlined; deleted material is shown in ~~strike through~~ (also see Chapter 4, Draft EIR Revisions).

## 4.B Project Description [PD]

The comments and corresponding responses in this section cover the subjects included in Draft EIR Chapter 2, Project Description. The comment topics relate to:

- PD-1: Design of Shoreline Protection System
- PD-2: Reach 16
- PD-3: Reach 1 Construction
- PD-4: Aviador Lot
- PD-5: Sequence of Approvals

### 4.B.1 Comment PD-1: Design of Shoreline Protection System

This response addresses the following comments, which are quoted below:

A-BCDC-14

A-BCDC-15

A-BCDC-16

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“The DEIR mentions on page 3-6 that the sheet pile walls have a lifespan of approximately 60 years and that with some regular maintenance and corrosion-resistant coatings, the lifespan of the walls would extend an additional 25 years for a total lifespan of 85 years. We noted that the DEIR mentions that the proposed project is designed to be resilient through 2085. With an 85-year potential lifespan, it seems appropriate that the climate change and sea level rise analysis in the DEIR should look at what the flooding might look like at 2100 and how the project area could be adapted beyond 2085 if it is not resilient to flooding from sea level rise and a 100-year flood at that time. If or when the project comes before BCDC for a permit, it is likely that a risk assessment detailing the flood risk to the project will be required, including sea level rise scenarios over time up to the end of the century or the end of the project life, using the Ocean Protection Council’s State Sea Level Rise Guidance. More information on the Bay Plan Policies regarding sea level rise risk assessments and adaptive management plans can be found in BCDC’s Climate Change Policy Guidance.” (*Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-14, PD-1]*)

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“Section 4.F discusses the Hydrology and Water Quality aspects related to the project and includes a discussion of the future flood risk on the site. This section mentions that the 2018 OPC Sea Level Rise

Guidance (2018 Guidance) has projections out to 2080, however the 2018 Guidance contains projections out to 2150. While we recognize that there is more uncertainty associated with the later timeframes, based upon the expected life of the project of 85 years, the DEIR should also look at what occurs at later time periods than 2085, such as at 2100 or 2110, to identify what the flooding may look like and to discuss the process for developing an adaptation plan on how the airport might adapt to higher sea level rise in the future.” (*Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-15, PD-1]*)

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“The sea level rise analysis included in the DEIR, especially in Section 2.C, is not clear. Please revise and clarify this section. This section of the DEIR mentions the 2018 Guidance, but only really includes an analysis of sea level rise based upon the City’s Guidance and does not discuss how this relates to the comparison to a planning scenario under the 2018 Guidance. For clarity, please include the analysis also for the 2018 Guidance medium-high probability and high emissions planning scenario and what flooding might look like with the proposed project over time. The DEIR should also include an analysis of other things that can cause flooding, including groundwater rise, wave runup, combined fluvial and tidal flooding, etc. Regardless of whether the DEIR addresses these additional factors, it is likely that they will be required to be addressed in the preapplication phase of this project with BCDC. Additionally, the individual design plans for each reach in Chapter 2 appear to indicate that the sea level rise design elevation is 42 inches of sea level rise, rather than the 66 inches that is mentioned in the text on page 2-6. Please further clarify the difference between what is shown in the project designs and the text on page 2-6.” (*Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-16, PD-1]*)

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## RESPONSE PD-1

The Bay Conservation and Development Commission (BCDC) made several comments about the project description as it relates to sea-level rise. In comments A-BCDC-14 and A-BCDC-15, BCDC suggests that the sea-level rise risk assessment should consider sea-level rise resilience beyond 2085, to at least end of century, and explain how the proposed project may be adapted to sea-level rise that could occur in that time frame. If the project sponsor applies for a BCDC permit in the future, BCDC notes that such a risk assessment is likely to be required as a part of the application process. In comment A-BCDC-16, BCDC requests clarifications to the sea-level rise discussion presented in Draft EIR Section 2.C, Project Background, p. 2-4, particularly as it relates to the City’s guidance in relation to the state’s Ocean Protection Council (OPC) guidance, other sources of flooding in addition to coastal flood hazards, and the 42 inches of sea-level rise noted on the section figures for each reach in Draft EIR Chapter 2, Project Description.

The proposed project would be designed “to accommodate up to 66 inches of sea-level rise during a 100-year flood” (Draft EIR p. 2-6). For this design, the time period for which the proposed project would remain resilient to sea-level rise, where “resilient” is defined as flood protection measures with crest elevations above the 100-year flood elevation, depends on the rate at which future sea-level rise occurs. If sea-level rise proceeds according to the medium-high risk aversion projection for the high emissions scenario (RCP 8.5), the proposed project would remain resilient until approximately 2085. In the decades after that, SFO could experience intermittent flooding during a 100-year flood event. The projection of 66 inches of sea-level rise

#### 4. Draft EIR Revisions

##### 4.B. Project Description [PD]

by 2085 is considered to have only a 1-in-200 chance or 0.5 percent probability of being exceeded.<sup>1</sup> For the likely range projection from OPC, the proposed project's crest elevations are sufficient to maintain resilience through 2140. In the unlikely case that sea-level rise exceeds 66 inches by the proposed project's extended lifespan of 85 years, e.g., by 2110, SFO would undertake future planning and design to provide additional adaptive capacity. The Conceptual Design Study<sup>2</sup> prepared for the proposed project considered a range of projected sea-level rise amounts in addition to 24 inches of accommodation provided by Federal Emergency Management Agency (FEMA) freeboard requirements. Based on this assessment, which also considered consequences, project lifespan, timing, and level of confidence, as well as Federal Aviation Administration (FAA) flight path requirements, SFO selected its recommended sea-level rise design criteria.

The comments regarding BCDC permit requirements are noted. These comments do not pertain to the adequacy, accuracy, or completeness of the Draft EIR's analysis of the proposed project's physical environmental impacts and thus do not require further response.

The proposed project's approach to vulnerability assessment, risk assessment, and adaptation planning are based on the City's guidance.<sup>3</sup> As per the City's guidance, the analysis in the Draft EIR used the most recent science regarding sea-level rise projections, which is from OPC's 2018 guidance. This guidance is the source for the sea-level rise projections shown in the Conceptual Design Study<sup>4</sup> and shown in Table 2-1 (Draft EIR p. 2-5). The 0.5 percent probability column corresponds to the medium-high risk aversion scenario and the RCP 8.5 row corresponds to the high emissions planning scenario.

The analysis presented in the Draft EIR and its supporting documents considers other sources of flooding besides stillwater flood levels in the bay. As discussed in Draft EIR Section 2.C, Project Background, p. 2-4, the proposed project design criteria include compliance with FEMA requirements for accreditation. For accreditation, FEMA requires consideration of the total water level, which includes wave runup.<sup>5</sup> Wave analysis to calculate total water levels by reach is summarized in the Conceptual Design Study. As such, wave runup and associated risk for wave overtopping has already been considered and has been used to set crest elevations on a reach-by-reach basis. Analysis of the potential for emergent groundwater to contribute to flooding is not required under CEQA and, to the extent such analysis is needed, would be completed at a later phase of design and permitting. Emergent groundwater would manifest much like stormwater, and therefore would likely be managed much like stormwater. The Conceptual Design Study prepared for the proposed project also considered combined fluvial and tidal conditions as determined by modeling of riverine water levels due to 100-year riverine discharge concurrent with bay water levels augmented with sea-level rise. If needed, additional modeling of combined flooding conditions would be completed at a later phase of design and permitting.

As discussed in Draft EIR Section 2.C, Project Background, p. 2-4, based on the Conceptual Design Study, SFO determined that the project design should meet FEMA freeboard requirements of 24 inches plus 36 inches of

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<sup>1</sup> California Ocean Protection Council, State of California Sea-Level Rise Guidance, 2018 Update, [https://opc.ca.gov/webmaster/ftp/pdf/agenda\\_items/20180314/Item3\\_Exhibit-A\\_OPC\\_SLR\\_Guidance-rd3.pdf](https://opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf), accessed June 28, 2021.

<sup>2</sup> AECOM and Telamon Engineering Consultants, Shoreline Protection Program Conceptual Design Study, prepared for the San Francisco International Airport, March 2018. Cited on Draft EIR p. 2-6, footnote 30.

<sup>3</sup> The City and County of San Francisco, Guidance for Incorporating Sea-Level Rise into Capital Planning in San Francisco: Assessing Vulnerability and Risk to Support Adaptation, 2014, <https://onesanfrancisco.org/sites/default/files/inline-files/Guidance-for-Incorporating-Sea-Level-Rise-into-CapitalPlanning1.pdf>. Note that revisions made to this document were approved in 2015.

<sup>4</sup> AECOM and Telamon Engineering Consultants, Shoreline Protection Program Conceptual Design Study, prepared for the San Francisco International Airport, March 2018, p. 16.

<sup>5</sup> 44 Code of Federal Regulations Part 65.



sea-level rise, which total accommodation of up to 60 inches of sea-level rise during a 100-year flood. With the updated state guidance released in 2020<sup>6</sup> to prepare for 3.5 feet (42 inches) of sea-level rise by 2050 (see Draft EIR p. 3-7), SFO updated its design accordingly to 24 inches (FEMA freeboard) plus 42 inches (updated state guidance) for a total of 66 inches above the 100-year flood elevation. SFO recognizes that, in the event sea-level rise exceeds 42 inches, the proposed project would no longer meet current FEMA accreditation standards because the system's crest elevation would no longer have the required 24 inches of freeboard for accreditation. However, the crest elevations would remain above the 100-year flood elevations (as total water levels, including wave runup) for the combined total of 66 inches of sea-level rise. The sections of each reach presented in Draft EIR Chapter 2 only show 42 inches of sea-level rise from the state guidance because the additional 24 inches for FEMA accreditation are implicit, as per the project objectives (Draft EIR p. 2-2). However, to address the commenter's comment, the following footnote has been added at the end of the second to last sentence in the first paragraph of Draft EIR p. 2-6.

However, in 2020, based on a report released by the California Natural Resources Agency with updated guidance regarding planning for sea-level rise, SFO increased the height of the proposed shoreline protection system by 6 inches to accommodate up to 66 inches of sea-level rise during a 100-year flood.<sup>33,34</sup>

<sup>34</sup> The sections for each reach, such as Figure 2-5 for Reach 1, display the '42" SLR Design Elevation', which represents the 100-year flood elevation plus FEMA freeboard (24 inches) plus 42 inches for sea-level rise adaptation, for a total of 66 inches above the present-day 100-year flood elevation.

## 4.B.2 Comment PD-2: Reach 16

This response addresses the following comments, which are quoted below:

A-Caltrans-1

A-Millbrae-4

A-OneShoreline-1

I-Schneider2-4

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"The discussion of whether landside protection as part of Reach 16 may be constructed is of particular concern to Caltrans as it could have a direct effect on US-101 and North Access Road, both of which run along the western perimeter of SFO. As stated on pages 2-1, 2-70 and in other sections, the determination of whether or not to construct a low concrete wall, install deployable barriers and raise roadways depends on how, and when, the proposed facilities will connect to anticipated future flood protection measures to be taken by the City of South San Francisco to the north and the Cities of Millbrae and Burlingame to the south. Caltrans looks forward to reviewing plans, if available, as the determination to connect to future flood protection measures to the north and south are made. Caltrans agrees with the comprehensive approach to collective flood protection measures taken by the local cities, Federal Emergency Management Agency (FEMA) and the San Mateo County Flood Control District." (Mark Leong, District Branch Chief, Local Development Review, California Department of Transportation, District 4, Letter, 10/17/2022 [A-Caltrans-1, PD-2])

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<sup>6</sup> California Natural Resources Agency, 2020, Making California's Coast Resilient to Sea-Level Rise: Principles for Aligned State Action, [https://www.opc.ca.gov/webmaster/\\_media\\_library/2021/01/State-SLR-Principles-Doc\\_Oct2020.pdf](https://www.opc.ca.gov/webmaster/_media_library/2021/01/State-SLR-Principles-Doc_Oct2020.pdf), accessed June 28, 2021.

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**“3. West of Bayshore Site, Millbrae** – 180 acres – IN MILLBRAE and is part of our stormwater drainage system is not mentioned at all. This is the Lomita Canal, not mentioned in the DEIR, at least to the portions I've been able to read by today's deadline. This is the area with the California Garter Snake and the Red Legged Frog. Lomita Canal, required to be maintained by SFO to prevent flooding into Millbrae residential areas, that has been so poorly maintained by SFO that the Airport Park neighborhood flooded three times from October 23, 2021, to December 23, 2021 but is not discussed in the DEIR at all. Should SFO construct Reach 16, one can logically assumed flooding in Millbrae, whose drainage to the bay is blocked by SFO will get worse. The DEIR is inadequate as it does not investigate or mitigate cumulative impacts of rising seas, atmospheric rivers, soil subsidence, and historic lack of maintenance by SFO on Lomita Canal. There is no discussion of how this area connects to Millbrae's pump stations and to the Highline Canal (that is mentioned in Reach 15 but not in terms of water flowing to the Bay).” *(City of Millbrae, Letter, 10/17/2022 [A-Millbrae-4, PD-2])*

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“Established to work across jurisdictional boundaries and leverage partnerships to create enduring climate resilience, OneShoreline advocates for the planning and building of projects that are cross-jurisdictional, cross-sector, and cross-disciplinary. The benefits of this approach are highlighted in San Francisco’s Sea Level Rise Action Plan and by the SPP Draft EIR, which states that ‘landside Reach 16 would only be necessary to construct if the shoreline protection system is unable to connect to anticipated future shoreline protection system improvements in South San Francisco and Millbrae.’ To accomplish this and avoid constructing this longest SPP reach, SFO should closely collaborate with OneShoreline, which is leading adjacent efforts.” *(Len Materman, Chief Executive Officer, OneShoreline [San Mateo County Flood and Sea Level Rise Resiliency District], Letter, 10/17/2022 [A-OneShoreline-1, PD-2])*

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**“West of Bayshore Site, Millbrae** – 180 acres – IN MILLBRAE and is part of our stormwater drainage system is not mentioned at all. This is the Lomita Canal, not mentioned in the DEIR, at least to the portions I've been able to read by today's deadline. This is the area with the California Garter Snake and the Red Legged Frog. Lomita Canal, required to be maintained by SFO to prevent flooding into Millbrae residential areas, that has been so poorly maintained by SFO that the Airport Park neighborhood flooded three times from October 23, 2021, to December 23, 2021, but is not discussed in the DEIR at all. Should SFO construct Reach 16, one can logically assume flooding in Millbrae will increase. AS drainage to the bay, blocked by SFO will get worse. The DEIR is inadequate as it does not investigate or mitigate cumulative impacts of rising seas, atmospheric rivers, soil subsidence, and historic lack of maintenance by SFO on Lomita Canal. There is no discussion of how this area connects to Millbrae's pump stations and to the Highline Canal (that is mentioned in Reach 15 but not in terms of water flowing to the Bay).” *(Ann Schneider, Letter, 10/17/2022 [I-Schneider2-4, PD-2])*

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## RESPONSE PD-2

Commenter A-Caltrans-1 expresses concern over potential impacts to U.S. 101 and North Access Road related to the construction of Reach 16. The commenter also expresses support for SFO coordinating with adjacent cities to connect the proposed project with adjoining shoreline protection systems (e.g., the City of South San Francisco adjacent to Reach 1 to the north and the City of Millbrae adjacent to Reach 15 to the

south). Comment A-OneShoreline-1 notes the consistency of such a regional approach with OneShoreline’s (San Mateo County Flood and Sea Level Rise Resiliency District) ongoing efforts and recommends close collaboration between SFO and OneShoreline. Additional commenters express concerns about the potential impacts of Reaches 15 and 16 on Millbrae’s stormwater drainage system and South Lomita Canal.

As discussed in Draft EIR Section 1.C.1, Subsequent Environmental Review of Reach 16, p. 1-3, Reach 16 is analyzed at a programmatic level. SFO intends to pursue construction of Reach 16 only “if the shoreline protection system is unable to connect to anticipated future shoreline protection improvements in South San Francisco and Millbrae” (Draft EIR p. 2-70). SFO would seek to collaborate with Caltrans, OneShoreline, South San Francisco, and Millbrae to facilitate connection with these future adjoining shoreline protection improvements.

Regarding comments pertaining to potential flood impacts in Millbrae and South Lomita Canal should Reach 16 be constructed, if SFO decides to construct Reach 16, the design would be further developed and subject to subsequent environmental review under CEQA, as discussed in Draft EIR Section 1.C.1, Subsequent Environmental Review of Reach 16, p. 1-3. The environmental review for this reach would include analysis similar to that conducted for the proposed project, such as an assessment of the potential for the reach to exceed the capacity of existing or planned stormwater drainage systems, including the City of Millbrae’s stormwater drainage system.

The Draft EIR analyzed potential impacts of the proposed project, including Reach 15, on the conveyance capacity of the Millbrae Channel (also known as the Highline Canal) as part of Impact HY-3 and found that “[t]he floodwalls along the San Bruno and Millbrae channels would be set at the tops of banks and would not substantially alter drainage or conveyance capacity in either of these channels” (Draft EIR p. 4.F-48), as indicated by findings from the City of Millbrae.<sup>7</sup> As such, as discussed under Impact HY-3 of the Draft EIR, the impact of the proposed project on the Millbrae Channel would be less than significant and no additional analysis is required.

Regarding claims that the Draft EIR is inadequate because it does not address impacts of rising seas, atmospheric rivers, soil subsidence, and a historic lack of maintenance of South Lomita Canal, the proposed project and cumulative impacts related to greenhouse gas emissions are addressed in Section E.9, Greenhouse Gas Emissions, of the initial study (see Draft EIR Appendix B). Proposed project and cumulative impacts related to geology and soils and hydrology are addressed in Draft EIR Section 4.E, Geology and Soils, and Draft EIR Section 4.F, Hydrology and Water Quality, respectively. In addition, environmental review under CEQA does not require analysis of the significant effects of the environment or climate change<sup>8</sup> (such as rising seas and atmospheric rivers) on a project unless the proposed project would exacerbate those impacts, which would not occur in this case because the project is proposed to address potential issues related to sea-level rise due to climate change. In addition, soil subsidence has not been an observed historical issue<sup>9</sup> north of Highway 84, which is approximately 30 miles south of SFO, and is not anticipated to be a future concern. Regarding the historic lack of maintenance of South Lomita Canal, this comment does not pertain to the adequacy, accuracy, or completeness of the Draft EIR’s analysis of the proposed project’s physical environmental impacts and thus does not require further response.

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<sup>7</sup> West Yost Associates, City of Millbrae Storm Drain Master Plan – Final, August 2018.

<sup>8</sup> *California Building Industry Association v. Bay Area Air Quality Management District* (2015), Cal.4th, Case No. S213478.

<sup>9</sup> Poland, J.F. and R.L. Ireland. 1988. Land Subsidence in the Santa Clara Valley, California, as of 1982. U.S. Geological Survey Professional Paper 497-F.

### 4.B.3 Comment PD-3: Reach 1 Construction

This response addresses the following comment, which is quoted below:

A-SamTrans-1

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“SamTrans acknowledges the pressing need for and supports SFO’s infrastructure improvement plan. Like SFO, SamTrans is responding to impending climate change impacts and has taken initial steps toward a sea level rise solution for SamTrans’ North Base Bus Yard (North Base, hereon). Accordingly, we would like to take this opportunity to reaffirm our interest in working with your office to identify design solutions that will connect and integrate the SFO shoreline barriers with new shoreline protection infrastructure at North Base.

Creating an integrated shoreline barrier that connects the SFO SPP to infrastructure at North Base will yield many community benefits. Critically, construction of a seawall and the deployment of temporary flood gates along the entrance to North Base will negatively affect SamTrans’ operations by blocking SamTrans’ access to North Base, its primary bus depot, which is only accessible via a bridge to North Access Road (Attachment A). We would like to work with SFO to identify a design solution that addresses both our agencies’ needs.

SamTrans is confident that potentially adverse impacts can be remedied through adequate coordination between SamTrans and SFO. For example, shifting the time-of-day of the construction on SFO SPP Reach 1 could help minimize disruptions to SamTrans’ operations. Similarly, scheduling the construction of Reach 1 later in the project would facilitate greater integration with SamTrans’ sea level rise adaptation project, which could simplify and reduce the cost of building Reach 1 by potentially eliminating the need for floodgates. To help reconcile SamTrans’ operations with the SFO SPP, SamTrans requests the opportunity to provide third-party review of future SFO SPP engineering design milestones.

SamTrans looks forward to effective, continuous communication with SFO on its critical Shoreline Protection Program, which will help protect one of the busiest airports in the United States. All Bay Area agencies that own assets with coastal exposure face similar challenges adapting to climate change and sea level rise while addressing liability and ensuring operational continuity. By planning cooperatively, agencies like SFO and SamTrans can reduce costs, improve design, and produce projects that yield multiple benefits through cooperation on cohesive coastal protections.

SamTrans would be pleased to work with SFO on such an effort.” (*Christy Wegener, Director of Planning, San Mateo County Transit District, Letter, 10/17/2022 [A-SamTrans-1, PD-3]*)

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### RESPONSE PD-3

The commenter (SamTrans) acknowledges the need for the proposed shoreline protection program and expresses support for its implementation. The commenter states that SamTrans is responding to impending climate change impacts and has taken initial steps towards developing a sea-level rise solution for the SamTrans North Base Bus Yard (North Base). The commenter expresses SamTrans’ interest in working with SFO to identify construction and design solutions that would connect and integrate the proposed project with future SamTrans shoreline protection infrastructure at North Base. The commenter expresses concerns related to the deployment of temporary flood gates along the entrance to North Base interrupting SamTrans’

operations and access to North Base. The commenter does not provide specific evidence to support this statement but does acknowledge that any potential adverse impacts could be remedied through adequate coordination between SamTrans and SFO. On p. 67 of the initial study (see Draft EIR Appendix B), deployment of temporary flood gates along the entrance to North Base is included in the operational analysis of the proposed project. The analysis notes that in the absence of the deployable and passive flood gates, roadways serving the Airport, the North Base Facility, and the Safe Harbor Shelter would be flooded, thereby blocking vehicular access to these facilities. However, under normal operations, the flood gates would not interfere with vehicular travel or people walking or bicycling across these roadways, and the impact would be less than significant. The comment is acknowledged and will be provided to City decision makers for consideration in their deliberations on the proposed project. The comments do not pertain to the adequacy, accuracy, or completeness of the Draft EIR's analysis of the proposed project's physical environmental impacts and thus does not require further response.

#### 4.B.4 Comment PD-4: Aviator Lot

This response addresses the following comment, which is quoted below:

I-Schneider2-3

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“Aviator Lot should be removed as a potential construction site. It is an incompatible land use. It is the first thing people coming to Millbrae see from 101 and the southbound exit to Millbrae Ave. It is another example of Millbrae paying an extreme price for the benefit of the City and County of San Francisco. Nor will this use comply with the Millbrae 2040 General Plan, which you do not mention at all in this DEIR. It is likely to be approved in early 2023 if not sooner.” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-3, PD-4]*)

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#### RESPONSE PD-4

The commenter states that the Aviator Lot, a construction staging area identified for the proposed project located on Airport property west of U.S. 101 in the City of Millbrae, should be removed as a potential construction site for aesthetic reasons. The commenter also cites land use incompatibility and noncompliance with the future Millbrae 2040 General Plan as reasons to remove the proposed construction staging area. The Aviator Lot has been used as a construction staging area for SFO projects for approximately 10 years and would continue to be used as a construction staging area for the duration of the proposed project. Therefore, views of the Aviator Lot from U.S. 101 would remain largely unchanged with implementation of the proposed project. With regard to land use incompatibility, as stated on Draft EIR p. 3-13, while the Airport is not subject to the plans and policies of neighboring jurisdictions,<sup>10</sup> a discussion of the proposed project's consistency with the 1998 general plan policies is included for informational purposes.<sup>11</sup> As further stated on Draft EIR p. 3-1, policy conflicts do not in and of themselves indicate a significant environmental effect pursuant to CEQA, in that the intent of CEQA is to determine the physical effects associated with a project. The San Francisco Planning Commission and other decision-makers will review the proposed project for consistency with the relevant objectives, policies, and principles of

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<sup>10</sup> California Government Code section 53090–53091.

<sup>11</sup> The Millbrae 2040 General Plan was not adopted at the time the Draft EIR was published. The general plan has since been adopted (December 2022); however, the adopted plan is not currently available online.

applicable policy documents. The staff reports and approval motions prepared for the decision-makers as part of the proposed project's approval process would include a comprehensive analysis and findings regarding the consistency of the proposed project with the applicable plans, policies, and regulations independent of the environmental review process. Moreover, the commenter does not provide any specific evidence to support the claim that the proposed temporary use of the Aviador Lot for construction staging would not comply with the Millbrae 2040 General Plan, nor does the commenter identify any specific deficiencies in the Draft EIR related to this issue. This comment does not raise specific issues concerning the adequacy, accuracy, or completeness of the Draft EIR's analysis of the proposed project's physical environmental impacts and thus does not require further response.

#### 4.B.5 Comment PD-5: Sequence of Approvals

This response addresses the following comment, which is quoted below:

A-CPC-Diamond-2

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“COMMISSIONER DIAMOND: And the third was, I saw a chart at the beginning that was very helpful in understanding the phases of construction. I also saw an explanation of each of the other agencies that needs to grant approval and the nature of their approval. But I didn't see anything that indicated the order of the approvals, you know, the work of the, like, Airport Land Use Commission versus BCDC versus State Lands. And I think it would be helpful, if it's in there and I missed it, to point it out me, or if you could create a chart that indicates in what sequence each of these approvals occurs and in what time frame prior to the commencement of construction.

MR. LI: I'd like to check with the city attorney. Is that something we can respond to today or should we defer to the Responses and Comments document?

MS. JENSEN: This is Deputy City Attorney Kristen Jensen. And I'm sorry, Commissioner Diamond, but I was unable to hear your question.

COMMISSIONER DIAMOND: Okay. Just give me a quick -- no small feat for me to take my mask off.

MS. JENSEN: Thank you.

COMMISSIONER DIAMOND: Let me repeat the question. So the document did a good job of laying out all of the agencies -- other agencies that are involved and the entitlements that are necessary. It also indicated the sequencing of construction. But I didn't see anything that indicated the sequencing of approvals, like where does the Airport Land Use Commission approval occur relative to BCDCs and State Lands and the Regional Water Quality Control Board? I think it would be very helpful to understand the sequence. And I didn't know if it's in there and I missed it or if you can tell us what it is or if you want to do that in the Response to Comments documents.

MS. JENSEN: And in response, I believe staff's question then is whether or not you can include it in the Response to Comments?

MR. LI: Whether we can answer that question now or if we should defer to the Responses and Comments document.

MS. JENSEN: You can do both. If you have a ready answer that you can put on the record here, you can certainly do that verbally, but it probably also is useful to put it in writing in the Response to Comments document.

MR. LI: Okay. At this time, we don't have information about the specific sequence. A lot of these approvals are being pursued concurrently. But we will address this in the Responses to Comments document.” (*Sue Diamond, Commissioner, San Francisco Planning Commission, Public Hearing, 10/6/2022 [A-CPC-Diamond-2, PD-5]*)

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## RESPONSE PD-5

The commenter requested information regarding the sequence of approvals that would be required for the proposed project. As provided in Draft EIR Section 2.H, Required Project Approvals, p. 2-77, the proposed project is subject to review and approvals by several federal, state, regional, and local agencies. Certification of the SFO Shoreline Protection Program Final EIR by the planning commission, which would be appealable to the board of supervisors, is required before any other discretionary approvals or permits can be issued for the proposed project. Following certification of the Final EIR, the proposed project may require several project approvals, recommendations, consents, and/or plan amendments, including but not necessarily limited to the Federal Aviation Administration, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the California Department of Fish and Wildlife, the State Water Resources Control Board and San Francisco Bay Regional Water Quality Control Board, the San Francisco Bay Conservation and Development Commission, and the San Francisco Airport Commission. It is anticipated that required agency approvals for the proposed project would be requested and processed concurrently and issued based on individual agency timelines. It is anticipated that, as allowed under CEQA, any future state and local approvals would rely on the EIR (unless significant changes occur with the proposed project or the project circumstances that require further environmental review); federal actions would require their own environmental review. This comment does not pertain to the adequacy, accuracy, or completeness of the Draft EIR’s analysis of the proposed project’s physical environmental impacts and thus does not require further response.

## 4.C Plans and Policies [PP]

The comments and corresponding responses in this section cover the subjects included in Draft EIR Chapter 3, Plans and Policies. The comment topics relate to:

- PP-1: BCDC Jurisdiction
- PP-2: Conflicts with San Francisco Bay Plan



### 4.C.1 Comment PP-1: BCDC Jurisdiction

This response addresses the following comment, which is quoted below:

A-BCDC-1

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“From reviewing the Draft EIR, it appears that a portion of the proposed project would be located within the Commission’s jurisdiction. The Commission’s jurisdiction includes both the Bay itself and the ‘shoreline band.’ The shoreline band extends 100 feet inland from and parallel to the Bay shoreline, that shoreline being defined as all tidal areas of the Bay up to the line of mean high tide, or where there is tidal marsh, all areas five feet above mean sea level. Within its jurisdiction, Commission permits are required for activities including the placement of fill, substantial changes in use, and dredging/extraction of materials. The proposed project would require a permit from the Commission. Permits are issued if the Commission finds the activities to be consistent with the McAteer-Petris Act and the policies of the Bay Plan.

Although, the DEIR does not contain maps identifying the Commission’s exact jurisdiction areas of the proposed project, it does mention that work would occur both within the Bay and shoreline band jurisdictions. With greater detail on the exact jurisdiction and impacts, the Staff will be able to work closely with SFO during the permitting to ensure that the project is consistent with the Commission’s laws and policies. The Final DEIR should provide a detailed and complete project description, clarify where the proposed project would occur within the Commission’s Bay and 100-foot shoreline band jurisdictions.” (*Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-1, PP-1]*)

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### RESPONSE PP-1

The commenter accurately states that a portion of the proposed project would be located within BCDC’s jurisdiction and would include activities, such as the placement of fill and dredging of materials, that could require a permit from BCDC. The commenter further states that the Final EIR should provide a detailed and complete project description that identifies the exact impacts of the proposed project within BCDC’s bay and 100-foot shoreline band jurisdictions. Chapter 2, Project Description, of the Draft EIR includes a complete and detailed description of the proposed project, including the extent to which the proposed shoreline protection system would extend beyond the existing shoreline into the bay. The proposed project’s exact impacts within BCDC’s bay and 100-foot shoreline band jurisdictions will be determined and considered as part of the permit application review and approval process required for the proposed project. The comment does not raise specific issues concerning the adequacy, accuracy, or completeness of the Draft EIR’s analysis of the proposed project’s physical environmental impacts and thus does not require further response.

### 4.C.2 Comment PP-2: Conflicts with San Francisco Bay Plan

This response addresses the following comment, which is quoted below:

A-BCDC-2

“Section 66602 of the McAteer-Petris Act (MPA) states, in part, that certain water-oriented land uses along the bay shoreline are essential to the public welfare of the Bay Area, and that these uses include airports, wildlife refuges, water-oriented recreation and public assembly, and, as such, the San Francisco Bay Plan should make provision for adequate and suitable locations for all these uses. In Section 66611, the Legislature declares ‘that the Commission shall adopt and file with the Governor and the Legislature a resolution fixing and establishing within the shoreline band the boundaries of the water-oriented priority land uses, as referred to in Section 66602,’ and that ‘the Commission may change such boundaries in the manner provided by Section 66652 for San Francisco Bay Plan maps.’ The San Francisco International Airport is located in an Airport Priority Use Area as identified by Bay Plan Map 5. The DEIR includes a short analysis of the Priority Use Area on page 3-4 but does not address how the additional Bay fill for the proposed project, which may be considered expansion into the Bay, is consistent with a clear need identified by a regional airport system study. Please further address this in this section. Additionally, the proposed project will be subject to the Bay Plan policies on Airports, which includes policies consistent with the map policies mentioned on page 3-4 of the DEIR.” (Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-2, PP-2])

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## RESPONSE PP-2

The commenter states that the analysis of the Priority Use Area as identified by Bay Plan Map 5, Draft EIR p. 3-4, does not address how the additional bay fill for the proposed project, which may be considered expansion into the bay, is consistent with the Bay Plan Map 5 policy stating that expansion into the bay should only be considered if there is a clear need identified by a regional airport system study.

As stated in the analysis of the Priority Use Area in Draft EIR Section 3.B.2, State Plans and Policies, p. 3-4, the proposed project would install a shoreline protection system that would comply with current FEMA flood protection requirements and would protect SFO from future sea-level rise.

With regard to the comment that the Draft EIR does not address how the additional bay fill for the proposed project is consistent with a clear need identified by a regional airport system study, there is no currently adopted regional airport system study. However, the absence of an adopted regional airport system study does not preclude or negate SFO’s requirement to comply with federal, state, and local requirements pertaining to flood protection and sea-level rise.

Draft EIR Section 2.C, Project Background, p. 2-4, provides a detailed description of the federal (FEMA), state (OPC and California Natural Resources Agency), and local (City and County of San Francisco) studies, guidance, and requirements that establish the need for the proposed project. Draft EIR Section 2.C also describes the process in which SFO’s Conceptual Design Study and subsequent refinements, based on updated guidance regarding planning for sea-level rise issued by the California Natural Resources Agency,<sup>12</sup> determined that the proposed design of the shoreline protection system is most appropriate to meet FEMA requirements and to accommodate projected sea-level rise. In addition, Draft EIR Section 2.B, Project Objectives, p. 2-2, state the objectives of the proposed project in relation to the aforementioned federal, state, and local requirements. Consequently, the Draft EIR identifies the clear need for the project and how

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<sup>12</sup> California Natural Resources Agency, 2020, Making California’s Coast Resilient to Sea-Level Rise: Principles for Aligned State Action, [https://www.opc.ca.gov/webmaster/\\_media\\_library/2021/01/State-SLR-Principles-Doc\\_Oct2020.pdf](https://www.opc.ca.gov/webmaster/_media_library/2021/01/State-SLR-Principles-Doc_Oct2020.pdf), accessed June 28, 2021.

#### 4. Draft EIR Revisions

##### 4.D. Historic Resources [CR]

its proposed design is based on federal, state, and local requirements pertaining to flood protection and sea-level rise.

In response to the comment, the following text change has been made to Draft EIR p. 3-4:

The proposed project would not change the uses at the project site; therefore, the site would remain consistent with its priority use designation. The proposed project would install a shoreline protection system that would comply with current FEMA flood protection requirements and protect the Airport from future sea-level rise. While the proposed shoreline protection system would require the placement of approximately 26 acres of open water fill in the bay and would impact approximately 3 acres of wetland areas, the proposed project is required to protect against a 100-year flood event and future sea-level rise. Section 2.C, Project Background, p. 2-4, provides a detailed description of the federal, state, and local guidance and requirements that establish the need for the proposed project and how the proposed project is designed to meet these guidelines and requirements. While there is no currently adopted regional airport system study that is applicable to the proposed project, the aforementioned federal, state, and local guidance and requirements establish the need for the proposed project. The proposed project would not expand runway capacity into the bay. The proposed project would be constructed in accordance with applicable design and safety requirements and would not place tall structures or incompatible uses within runway approach and takeoff areas or introduce airspace hazards. The proposed project would not impede or conflict with the completion of the Bay Trail. The proposed project would therefore not conflict with the Bay Plan Map 5 policies identified for SFO.

Finally, the commenter states that the proposed project will be subject to the Bay Plan policies on airports, which includes policies consistent with the map policies mentioned on Draft EIR p. 3-4. The comment is acknowledged, and the Draft EIR identifies the Bay Plan policies that are applicable to the proposed project.

## 4.D Historic Resources [CR]

The comments and corresponding responses in this section cover the subjects included in Draft EIR Section 4.A, Historic Resources. The comment topics relate to:

- CR-1: Historical Development of SFO

### 4.D.1 Comment CR-1: Historical Development of SFO

This response addresses the following comments, which are quoted below:

A-Millbrae-12

I-Schneider2-15

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**“7. Historical Section** – What can I say, and sarcasm is intended, it is completely from the San Francisco perspective. You talk about how the bay was filled from the hillsides of San Mateo County. Technically correct but you left out how this made the people of unincorporated Millbrae fight the Counties and Burlingame to become Millbrae. This points to the historical damage SFO and the City and County of San Francisco have reaped upon the residents, land, animals and structures in Millbrae, many of which predate the massive expansion of SFO from before WWII.” (*City of Millbrae, Letter, 10/17/2022 [A-Millbrae-12, CR-1]*)

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**“Historical Section** – What can I say, and sarcasm is intended, it is completely from the San Francisco perspective. You talk about how the bay was filled from the hillsides of San Mateo County. Technically correct but you left out how this made the people of unincorporated Millbrae fight the Counties and Burlingame to become Millbrae. This points to the historical damage SFO, and the City and County of San Francisco have reaped upon the residents, land, animals and structures in Millbrae, many of which predate the massive expansion of SFO from before WWII.” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-15, CR-1]*)

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## RESPONSE CR-1

Presumably, the commenter is referring to the brief history of the development of SFO that is presented in Draft EIR Section 4.A, Historic Resources, p. 4.A-36. This brief history describes the establishment and early development of SFO in the 1930s, including the use of soil and rocks from the San Mateo hills to fill marsh and tidelands as part of the development of the Airport. The commenter asserts that this historical discussion in the Draft EIR omits a linkage of this event to Millbrae’s struggle for incorporation. The commenter further characterizes this event as representative of historical damage to residents, land, animals, and structures in Millbrae that the commenter asserts has been caused by SFO and the City and County of San Francisco. The comment does not raise specific issues concerning the adequacy, accuracy, or completeness of the Draft EIR’s analysis of the proposed project’s physical environmental impacts and thus does not require further response.

## 4.E Noise and Vibration [NO]

The comments and corresponding responses in this section cover the subjects included in Draft EIR Section 4.B, Noise and Vibration. The comment topics relate to:

- NO-1: Noise Impacts
- NO-2: Aircraft Noise
- NO-3: Ground-Based Noise

### 4.E.1 Comment NO-1: Noise Impacts

This response addresses the following comments, which are quoted below:

A-Millbrae-8

A-Millbrae-11

A-Millbrae-15

I-Schneider2-8

I-Schneider2-10

I-Schneider2-13

I-Schneider2-14

I-Schneider2-18

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“Trees also are a nature based way to absorb noise, especially low frequency noise, so the section talking about habitat work, a separate project, that will remove trees and cause no impact is entire wrong and is another reason that reference makes this DEIR inadequate. Each action has a cumulative impact. SFO and San Francisco have expanded constantly by keeping each impact separate, as well as the huge 101 expansions to accommodate SFO. This hasn't hurt the residents of San Francisco, environmentally or financially as San Francisco places the burdens and none of the awards onto the ‘close in communities’ like Millbrae.

SFO has for decades asked to fill the bay and have been told no. Now you claim you need to fill the bay for sea level rise mitigation. When really what you want to do is widen roads, adding more asphalt and inert surfaces which will bounce more noise into Millbrae. This is not discussed as a noise impact at all. And yet your own Noise office will agree that inert surfaces bounce rather than absorb noise. And then you hide the shear amount of bay fill you plan to do by listing the acres to be field reach by reach. In both cases this proves the inadequacy of this DEIR. If SFO proceeds with filling the bay and adding more inert surfaces that must be studied and discussed in the DEIR. *(City of Millbrae, Letter, 10/17/2022 [A-Millbrae-8, NO-1])*

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“Also absent from this DEIR is acknowledging the 2020 Spectral Analysis study on how low frequency noise moves from SFO and up into the hillsides, where it does not attenuate and in fact concentrates. So how noise will react to think 9.5' tall walls and midnight to 6 am construction work for 10 years will have a much greater impact on people in the ‘close in communities’ and since SFO plans on using Aviator Lot continuously, that that is just one more noise addition to all the existing inputs (arrivals, departures, run-ups, ground transportation, 101, BART, Caltrain. All of these agencies have gotten away with each saying the other creates the ambient noise and then getting to discount and not mitigate for their actions, with the end result a noise hell in Millbrae.

It is understandable to use 2019 data as the pandemic did have a big impact on the number of flights. Flights are now back to approx. 85% per SFO at the Oct 4, 2022 SFORT. Now that the Gateway Project is almost complete, those buildings should be used for noise measurements. Had any staff come to this location you would see that the hotel is built over Garden Lane, so the idea of rimming heavy dirty trucks, spewing gravel

underneath sleeping people simply is not going to happen. So your assumptions throughout the DEIR of using Garden Lane are not practicable or acceptable.” (*City of Millbrae, Letter, 10/17/2022 [A-Millbrae-11, NO-1]*)

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“The DEIR talks about the noise of construction and its impact to the Westin but assumes the Westin has the latest Title 24 noise mitigation materials in use. Since the Westin was built decades ago, this is a false assumption.” (*City of Millbrae, Letter, 10/17/2022 [A-Millbrae-15, NO-1]*)

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“Trees also are a nature-based way to absorb noise, especially low frequency noise, so the section talking about habitat work, a separate project, that will remove trees and cause no impact is entire wrong and is another reason that makes this DEIR inadequate. Removal of trees on Millbrae's east side will have immediate and long-lasting impacts to not just Airport Park, Marina Vista and Bayside Manor neighborhoods but also to all the upland neighborhoods as noise is not attenuating as it moves up our hillsides. And the noise bounced into us from the Grand Hyatt has only made this situation considerably worse.

Each action has a cumulative impact. SFO and San Francisco have expanded constantly by keeping each impact separate, as well as the impacts of the huge 101 expansions to accommodate SFO. This hasn't hurt the residents of San Francisco, environmentally or financially as San Francisco places the burdens and none of the awards onto the ‘close in communities’ like Millbrae. Each SFO expansion has hurt the City of Millbrae with no physical or financial mitigation.

SFO has for decades asked to fill the bay and have been told no. Now you claim you need to fill the bay for sea level rise mitigation. When really what you want to do is widen roads, adding more asphalt and inert surfaces which will bounce more noise into Millbrae. This is not discussed as a noise impact at all.

Your own Noise office will agree that inert surfaces bounce rather than absorb noise. Ground cover and water can absorb noise. Filling even an inch more of the page and adding even a square foot more of asphalt will make Millbrae noisier. This is not described, or mitigation mentioned in the DEIR and therefore the DEIR is inadequate.” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-8, NO-1]*)

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“The DEIR should also analyze the loss of noise absorption from water and plants that exist in the marshlands next to Reach 14 and Millbrae. We are aware that SFO would prefer that this area have no plants as again, plants mean birds. However, marshlands perform several functions including creation of oxygen, sound absorption, naturally slowing wave actions and reducing shoreline erosion. This is also Millbrae only piece of the Bay and looking at metal walls and rocks is not providing enjoyment for our residents for our part of the Bay.” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-10, NO-1]*)

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“**2020 Low Frequency Noise Spectral Analysis Study** – Also absent from this DEIR is acknowledging the 2020 Spectral Analysis study on how low frequency noise moves from SFO and up into the hillsides, where it does not attenuate and in fact concentrates. So how noise will react to 5' thick 9.5' tall walls and midnight to 6 am construction work for 10 years will have a much greater impact on people in the ‘close in communities’. Since SFO plans on using Aviator Lot continuously, that that is just one more noise addition to all the

#### 4. Draft EIR Revisions

##### 4.E. Noise and Vibration [NO]

existing inputs including arrivals, departures, run-ups, ground transportation, 101, BART, Caltrain. All these agencies, SFO included, have gotten away with each saying the other creates the ambient noise and then getting to discount and not mitigate for their actions, with the result a noise hell in Millbrae.” (Ann Schneider, Letter, 10/17/2022 [I-Schneider2-13, NO-3])

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“It is understandable to use 2019 data as the pandemic did have a big impact on the number of flights. Flights are now back to approx. 85% per SFO report at the Oct 4, 2022, SFORT. Now that the Gateway Project is almost complete, those buildings should be used for noise measurements. Had any staff come to this location you would see that the hotel is built over Garden Lane, so the idea of running heavy dirty trucks, spewing gravel underneath sleeping people simply is not going to happen. So, your assumptions throughout the DEIR of using Garden Lane are not practicable or acceptable.” (Ann Schneider, Letter, 10/17/2022 [I-Schneider2-14, NO-1])

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“The DEIR talks about the noise of construction and its impact to the Westin but assumes the Westin has the latest Title 24 noise mitigation materials in use. Since the Westin was built decades ago, this is a false assumption.” (Ann Schneider, Letter, 10/17/2022 [I-Schneider2-18, NO-1])

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## RESPONSE NO-1

The commenters state that the Draft EIR is inadequate because it fails to account for cumulative noise impacts that would result from the removal of one tree associated with the proposed project combined with the potential removal of trees that could occur as part of implementation of the San Francisco Garter Snake Recovery Action Plan 2019 to 2029 cumulative project. The commenters state that trees absorb noise, especially low frequency noise. The commenters further claim, without providing substantial evidence, that the proposed project’s true purpose is to widen roads, and the Draft EIR fails to address the noise-bouncing effects the new roads and other inert surfaces, such as bay fill, that would be developed under the proposed project, could have on residents in Millbrae. The commenters also state that the Draft EIR did not acknowledge a 2020 spectral analysis that discussed the propagation of ground-based noise. The commenters also state that the Draft EIR should include noise measurements for the Gateway at Millbrae Station project (Gateway project) to disclose construction noise impacts on the hotel built over Garden Lane; that the Draft EIR’s discussion of potential construction noise impacts on the Westin Hotel inappropriately assumes the hotel was designed to comply with the sound-transmission requirements of the California Building Standards Code; and that the Draft EIR fails to consider the loss of noise absorption from water and plants near Reach 14. The commenters also state that the number of aircraft operations are back up to approximately 85 percent of pre-pandemic levels. Responses to these comments are organized by topic below.

## CUMULATIVE NOISE IMPACTS AND VEGETATION REMOVAL

Regarding the commenter’s statement that the Draft EIR is inadequate because it does not consider cumulative noise impacts related to the removal of one tree under the proposed project (which recently was uprooted during a storm event), as described on Draft EIR p. 2-25 and shown on Figure 2-13, p. 2-26,



combined with the potential removal of selected non-native trees<sup>13</sup> and vegetation management in the canals that could occur as part of implementation of the San Francisco Garter Snake Recovery Action Plan 2019 to 2029 project is incorrect. The effectiveness of vegetation in the absorption of sound was analyzed in the California Department of Transportation (Caltrans) document *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. The document states that, despite a general perception of its effectiveness in lowering noise levels, shielding by shrubbery and trees typically used in landscaping along highways provides an imperceptible amount of noise reduction (less than 1 dB).<sup>14</sup> The discussion of existing noise levels on Draft EIR pp. 4.B-7 through 4.B-12 presents measured noise levels that would include any marginal noise-reducing effects of vegetative absorption. The analysis of noise impacts and associated future noise level predictions discussed under Impact NO-1 on Draft EIR pp. 4.B-27 through 4.B-41 do not include any marginal noise reduction in project-generated noise from vegetative absorption. Therefore, the estimated increase in noise levels is conservative because it does not account for any marginal noise reduction from vegetative absorption. For these reasons, the discussion of cumulative noise impacts presented under Impact C-NO-1, which includes the San Francisco Garter Snake Recovery Action Plan 2019 to 2029 project, identified a less-than-significant impact since the proposed project, in combination with the cumulative projects located within 900 feet of sensitive receptors (the 300 Block of Bay Street and residences along Roblar Avenue in Millbrae) would not exceed the ambient plus 10 dBA standard. Therefore, the analysis of noise impacts of the proposed project is conservative and adequate for purposes of CEQA.

## **PROJECT PURPOSE**

The commenter's statement that the proposed project's true purpose is to widen roads under the guise of sea-level rise mitigation is incorrect and unsupported by substantial evidence.

## **SPECTRAL ANALYSIS STUDY**

The commenters state that the noise analysis in the Draft EIR did not consider the findings of a spectral analysis study. The 2020 low-frequency noise spectral analysis study evaluated the propagation of ground-based noise<sup>15</sup> through areas in Millbrae southwest of Runways 1L and 1R and the effectiveness of vegetation as a means to reduce noise.<sup>16</sup> The study intended to provide stakeholders with a general understanding of ground-based noise effects and aid in discussions about incorporating noise mitigation principles in new or redevelopment projects within the surrounding communities. The construction noise analysis on Draft EIR pp. 4.B-27 through 4.B-33 analyzed construction noise impacts consistent with the methodology and criteria developed by the Federal Transit Administration (FTA), which is an industry standard for construction noise assessments. The spectral analysis study did not consider the proposed project analyzed in the Draft EIR and used a noise model and metric not approved by the FAA for aircraft noise analyses or the FTA for construction noise assessment. The construction noise analysis presented under Draft EIR Impact NO-1, pp. 4.B-27 through 4.B-33, determined that noise from construction of Reaches 1 and 2 near the Safe Harbor

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<sup>13</sup> Phased removal of non-native tree species, such as eucalyptus (*Eucalyptus* spp.) and acacia (*Acacia* spp.), would be undertaken to promote succession by native and naturalized species from nearby communities or existing seedbank. A total of approximately 40 trees could be removed over the course of the 10-year implementation period, at a rate of approximately four trees per year, dependent on the Airport's funding and scheduling constraints.

<sup>14</sup> Caltrans, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, pp. 5–55, September 2013, <https://dot.ca.gov/programs/environmental-analysis/noise-vibration>, accessed November 28, 2021.

<sup>15</sup> Ground-based noise sources include but are not limited to aircraft application of power on takeoff, aircraft becoming airborne on takeoff, aircraft application of reverse thrust after touchdown, aircraft engine warm up procedures prior to departure, aircraft taxiing, and vehicular and other sources of noise on the airfield.

<sup>16</sup> HMMH, *San Francisco International Airport Group Based Noise Modeling Study*, January 2021, <https://sforoundtable.org/wp-content/uploads/2021/01/HMMH-GBN-STUDY.pdf>, accessed February 2023.

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#### 4.E. Noise and Vibration [NO]

Shelter would exceed the 10 dBA standard ambient noise level by 4 dBA and 7 dBA, respectively; therefore, the impact with regard to temporary increases in noise levels due to construction during daytime hours would be significant. Mitigation Measure M-NO-1, Construction Noise Control Measures, is identified to reduce construction noise impacts to the Safe Harbor Shelter. With incorporation of this mitigation measure, construction noise impacts to sensitive receptors in the City of Millbrae were determined to be less than significant.

#### **NOISE MEASUREMENTS FOR THE GATEWAY PROJECT ADJACENT TO THE AVIADOR LOT**

The commenters state that noise measurements for the existing environmental setting should include monitoring of buildings nearing completion at the Gateway project adjacent to the Aviator Lot. As shown on Draft EIR Figure 4.B-2, p. 4.B-8, noise monitoring was conducted near the Aviator Lot and Gateway project in 2019. Furthermore, the existing setting for a proposed project under CEQA is the environmental conditions at the time of issuance of the Notice of Preparation (NOP) of the Environmental Impact Report. The NOP for the Draft EIR was issued on November 25, 2020, when the Gateway project was just breaking ground. Noise was not monitored in 2020 because noise from construction activity at the Gateway project site would have interfered with monitored noise levels at the time. Consequently, the noise data collected in 2019 is the best available data that would not overestimate noise levels in the area by including noise from construction at the Gateway project site. Construction of the Gateway project also will be complete by the time construction of the proposed project commences; therefore, construction of the Gateway project and the proposed project would not overlap. As such, no further noise monitoring is warranted. Furthermore, the traffic analysis<sup>17</sup> for the Gateway project included future operational traffic volumes along Garden Lane that were used to determine an operational roadside noise level of 62.5 dBA (see Draft EIR p. 4.B-25), representative of existing conditions without the proposed project. Table 4.B-14 on Draft EIR p. 4.B-33 shows that the total noise levels including construction-related truck travel on Garden Lane (within the Gateway project site) to the Aviator lot would be 65 dBA, which is an increase of less than 3 dBA. Therefore, the analysis in the Draft EIR determined the impact is less than significant.

The Aviator Lot has been used by SFO for staging of construction materials for several years and is part of the existing condition. Potential traffic impacts related to project construction activities were addressed on initial study pp. 59 to 67 (see Draft EIR Appendix B). The analysis concluded that with implementation of the traffic control plan for the proposed project, truck access to and from the Aviator Lot construction staging area would not substantially increase the number of vehicles in the area. As discussed on Draft EIR p. 4.B-33, and as shown in Table 4.B-14, increases in roadside noise levels from project construction worker and truck traffic would be less than 3 dBA along Garden Lane, and the northern parking lot access route, which are located in the City of Millbrae. Therefore, the noise impact along these roadways from construction traffic would be less than 3 dBA, which Caltrans identifies as a barely perceptible increase. As such, the impact is identified as less than significant, and no mitigation measures are required. For these reasons, the Draft EIR adequately addresses the potential for increased noise levels related to construction traffic along Garden Lane.

#### **CONSTRUCTION NOISE IMPACTS ON THE WESTIN HOTEL**

The commenters state that the Draft EIR's discussion of potential construction noise impacts on the Westin Hotel inappropriately assumes the hotel was designed to comply with the sound-transmission requirements

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<sup>17</sup> Fehr & Peers, *Millbrae Station Final Access and Circulation Plan*, July 2016, <https://www.ci.millbrae.ca.us/home/showpublisheddocument?id=12306>, accessed March 24, 2021.

of the California Building Standards Code. The California Building Standards Commission adopted Title 24 sound-transmission building construction requirements in 1978, which has specific requirements for land uses near airports. The Westin Hotel was constructed in 1987<sup>18</sup> and underwent a substantial renovation in 2014;<sup>19</sup> therefore, building materials would have been required to meet the standards of Title 24. As such, the noise analysis in the Draft EIR correctly assumes that construction materials for the Westin Hotel would have been designed to achieve an exterior-to-interior noise reduction far greater than what was required for standard building materials in the 1970s.

### **NOISE ABSORPTION FROM WATER AND PLANTS**

The commenter states that the Draft EIR should analyze the loss of noise absorption from water and plants that exist in the marshlands next to Reach 14. As discussed above, absorption of sound by vegetation provides an imperceptible amount of noise reduction (less than 1 dB). The discussion of existing noise levels on Draft EIR pp. 4.B-7 through 4.B-12 represent monitored ground-level noise levels that are inclusive of any marginal effects of vegetative absorption. The analysis of noise impacts and associated noise level predictions on Draft EIR pp. 4.B-27 through 4.B-41 are conservative in that they do not take into account any marginal effects of vegetative absorption. Therefore, the analysis of noise impacts from implementation of the proposed project are conservative and adequate for the purposes of CEQA. With regard to the claimed loss of noise absorption from a reduction in the water surface, while water absorbs the energy of a sound wave passing through a liquid medium more effectively than through air, water and hard pavement are acoustically reflective of sound waves travelling through air and are less absorptive. Therefore, the commenter's assertion is not correct, and the noise analysis of the Draft EIR correctly assumed a "hard" surface reflectivity for water surface.

### **AIRCRAFT OPERATIONS**

Regarding the comment that aircraft operations are back up to approximately 85 percent of pre-pandemic levels, this comment is noted. As noted on Draft EIR p. 2-75, the proposed project would result only in temporary changes to aircraft operations during construction and would not result in permanent changes to aircraft operations. This comment does not pertain to the adequacy, accuracy, or completeness of the Draft EIR's analysis of the proposed project's physical environmental impacts and thus does not require further response.

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<sup>18</sup> Travel Weekly, 2022. *The Westin San Francisco Airport*, <https://www.travelweekly.com/Hotels/Millbrae-CA/The-Westin-San-Francisco-Airport-p4236153>, accessed November 28, 2021.

<sup>19</sup> Waterton, *The Westin San Francisco Airport Completes 10 million Dollar Renovation*, <https://waterton.com/the-westin-san-francisco-airport-completes-extensive-10-million-dollar-renovation/>, accessed November 28, 2021.

## 4.E.2 Comment NO-2: Aircraft Noise

This response addresses the following comments, which are quoted below:

A-Millbrae-9

A-Millbrae-10

A-Millbrae-13

I-Schneider2-11

I-Schneider2-12

I-Schneider2-16

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**6. Noise bouncing** – steel plates. In the Noise section, the DEIR only talks about construction related noise claiming that in flight noise will be the same. There is no discussion of noise bouncing and deflecting off the new 9.5' metal walls being built. Sound walls bounce sound in several different ways. Easy examples are when freeways put in concrete noise walls and a neighborhood hundreds of yards or miles away now hear traffic sounds. The construction of the Grand Hyatt at SFO with its curved walls collects, concentrates aircraft noise from Runway 28 departures and possibly from Runway 1 departures and sends that noise into Millbrae. This negligence from past SFO expansions cannot be replicated in the year 2022 and this DEIR. You need to add an investigation of what ground and in-flight noise and vibrations will do when the sound/vibration waves hit the metal walls. So the Noise Section is inadequate for this reason.” (*City of Millbrae, Letter, 10/17/2022 [A-Millbrae-9, NO-1]*)

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“The Noise section is also inadequate in stating air traffic won't be counted as it will be same as it currently is, then later in the DEIR site 84 months of runway closures and strong likelihood that adverse weather, reverse flow flights will use Runway 19 to take off over Millbrae and arrive on Runway 1. Runway 19 departures and Runway 1 arrivals are not counted in the CNEL contours, or in any mitigation.

The entire section on insulation is inadequate as it uses CNEL A weighted noise and not C-weighted which includes low frequency noise created by SFO ground operations, jet taxiing, run ups, and departure. The FAA only begins to look at noise once a plane is in the air, and not what happens to communities behind and to the sides of runways. The FAA is well aware of this issue as it is one of the major issues brought up by SFORT. There is no discussion of this in the DEIR at all, and then a brush off that reverse flow departures won't be that great but could last for 84 months over the course of almost 10 years.” (*City of Millbrae, Letter, 10/17/2022 [A-Millbrae-10, NO-2]*)

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“This section speaks of the insulation program, the second chance programs and neglects the latest programs that will go back to homes SFO mitigated and fix the problems that created. Except, not in Millbrae since Stage 3 jet engines allowed the FAA to redraw noise contour lines so only 3 homes in Millbrae are within the 65 cnel contour. So homes like mine, with window put in in the early 1990 and have failed and leaked so badly that the first floor framing had to be replaced due to dry rot, do not qualify. Since the FAA and therefore SFO can ignore low frequency back blast noise that has grown as aircraft have gotten larger and heavier, it is a win for SFO and San Francisco and a complete loss for Millbrae, Burlingame and Hillsborough. Be aware

that we are pressuring the FAA to create real contours based on real existing noise and the use of R19 for departures and R1 for arrivals.” (*City of Millbrae, Letter, 10/17/2022 [A-Millbrae-13, NO-2]*)

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**Noise bouncing – steel plates.** In the Noise section, the DEIR only talks about construction related noise claiming that in flight noise will be the same, before, during and after construction. There is no discussion of noise bouncing and deflecting off the new 9.5' metal walls being built. Sound walls bounce sound in several different ways. Easy examples are when freeways put in concrete noise walls and a neighborhood hundreds of yards or miles away now hears traffic sounds. The construction of the Grand Hyatt at SFO with its curved walls collects and concentrates aircraft noise from Runway 28 departures and possibly from Runway 1 departures and sends that noise into Millbrae. The curved wall of the hotel acts as an amphitheater. This negligence from past SFO expansions can not be replicated in the year 2022 and this DEIR. You need to add an investigation of what ground and inflight noise and vibrations will do when the sound/vibration waves hit the metal walls. So, the Noise Section is inadequate for this reason. You should be using this DEIR to fix the damage previous SFO work has created.” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-11, NO-2]*)

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**“Current flight Activity Won’t Impact Construction Noise** – The Noise section is also inadequate in stating air traffic won't be counted as it will be same as it currently is, then later in the DEIR discuss the 84 months of runway closures. That the strong likelihood that adverse weather, reverse flow flights will use Runway 19 to take off over Millbrae and arrive on Runway 1. Runway 19 departures and Runway 1 arrivals. These flight paths are not counted in the CNEL contours, or in any current or future mitigation. SFO and the FAA's noise contours do not honestly reflect real flights over Millbrae, Burlingame and Hillsborough. The DEIR does not account for existing noise let alone the increased use of these runways during other runway closures. This again shows why this DEIR is inadequate. We are not talking about a few flights a year. It can be as much as 17% of flights per year, weather dependent, under pre covid travel. It will be more with runway closures. The DEIR must account for the real world and not just say, SFO will try not to use these runways, unless ... ‘gosh darn they really, really have to’. There are real impacts to the people and buildings under these flights. Many if not most of these structures fall in the historic range. My house for example was built in 1930 to 1931 and has overflights daily above it. Most buildings in Millbrae and Burlingame and Hillsborough fall in the 45 year or older category. The DEIR does not address this at all.

**Noise Insulation Program** – The entire section on insulation is inadequate as it uses CNEL A weighted noise and not C-weighted which includes low frequency noise created by SFO ground operations, jet taxiing, run ups, and departures. The FAA only begins to look at noise once a plane is in the air, and not what happens to communities behind and to the sides of runways. Low Frequency noise fans out at 45 degree angles from the jet engine. It is not a straight line which sadly is ignored by the current FAA noise contours. The FAA is well aware of this issue as it is one of the major issues brought up by SFORT. There is no discussion of this in the DEIR at all, and then a brush off that reverse flow departures won't be that great but could last for 84 months over the course of almost 10 years.” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-12, NO-2]*)

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“This section speaks of the insulation program, the second chance programs and neglects the latest programs that will go back to homes SFO mitigated and fix the problems that created. Except, not in Millbrae since Stage 3 jet engines allowed the FAA to redraw noise contour lines so only 3 homes in Millbrae are within the 65 cnel contour. So, homes like mine, with window put in in the early 1990 and have failed and leaked so

#### 4. Draft EIR Revisions

##### 4.E. Noise and Vibration [NO]

badly that the first floor framing had to be replaced due to dry rot, do not qualify. Since the FAA and therefore SFO can ignore low frequency back blast noise that has grown as aircraft have gotten larger and heavier, it is a win for SFO and San Francisco and a complete loss for Millbrae, Burlingame and Hillsborough. Be aware that we are pressuring the FAA to create real contours based on real existing noise and the use of R19 for departures and R1 for arrivals.” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-16, NO-2]*)

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## RESPONSE NO-2

Comments A-Millbrae-9 and I-Schneider 2-11 state that the Draft EIR fails to evaluate the effects of aircraft noise and vibration reflecting off new steel sheet pile walls that would be installed as part of the proposed project, and therefore the Draft EIR noise analysis is inadequate. The comments cite reflected traffic noise from concrete noise walls along freeways and reflected aircraft noise from SFO runway departures from the SFO Grand Hyatt Hotel as examples of adverse noise-bouncing impacts on Millbrae.<sup>20</sup> The comments provide no substantial evidence of these existing impacts or the failure of the Draft EIR to address similar impacts that would result from the proposed project. The noise analysis in the Draft EIR was conducted in accordance with established professional standards, FTA, and FAA regulations. The analysis in the Draft EIR determined that the proposed project would result in less-than-significant-with-mitigation construction noise impacts and less-than-significant operational noise impacts.

Comments A-Millbrae-10 and I-Schneider 2-12 state that the analysis of noise impacts related to proposed temporary runway closures in the Draft EIR are inadequate. The comments state that Runway 19 departures and Runway 1 arrivals associated with the temporary runway closures are not represented in the CNEL contours used in the Draft EIR aircraft noise analysis or in any mitigation measures in the Draft EIR. The comments further state that the Draft EIR discussion of the SFO noise insulation program is inadequate because the program uses an A-weighted noise metric and not a C-weighted noise metric, which the commenters state includes low-frequency noise created by SFO ground operations, including aircraft taxiing, run-ups, and departures. The comments state that the FAA is aware of the concern regarding the aforementioned noise metric via the San Francisco International Airport/Community Roundtable,<sup>21</sup> and the Draft EIR does not address this concern. Finally, the comments state that the analysis in the Draft EIR does not consider reverse flow of departures that would occur during construction.

The comment that Runway 19 departures and Runway 1 arrivals associated with temporary runway closures are not represented in the CNEL contours used in the Draft EIR aircraft noise analysis do not accurately reflect the temporary runway closures for the proposed project or the analysis of aircraft noise impacts during construction. The comments suggest that aircraft would depart Runway 19 and arrive on Runway 1. While Runway 10L-28R is closed, any operations that were expected on that runway would move to Runway 10R-28L. The same assumption applies during the closure of Runway 10R-28L. While the noise model does not assume arrivals on Runway 1L and Runway 1R, it does assume a percentage of departure

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<sup>20</sup> While reflection of noise off structures and surfaces does occur, the intensity significantly diminishes through geometrical spreading, air absorption, ground absorption, and meteorological effects, as detailed in the *Handbook of Acoustical Measurements and Noise Control* by Cyril M. Harris (3rd Edition). *Geometrical spreading*, a process where, as sound moves away from a source, the area that the sound energy covers becomes larger; thus, sound intensity decreases, occurs a few hundred feet from point sources, and decreases at a rate of 6 dB per doubling of distance. Air absorption and meteorological effects can attenuate noise based on temperature, temperature inversions, relative humidity, wind gradients, and atmospheric pressure.

<sup>21</sup> The San Francisco International Airport/Community Roundtable is a voluntary committee to address community noise impacts from aircraft operations at San Francisco International Airport. The roundtable includes representatives from San Francisco and San Mateo county governments, local governments, the FAA, and SFO.

operations on Runway 19L and Runway 19R, which is the primary contributing factor to aircraft noise, as discussed under Impact NO-3, p. 4.B-38, in Section 4.B.4, Impacts and Mitigation Measures.

The claim that the Draft EIR discussion of the SFO noise insulation program is inadequate because the program uses an A-weighted noise metric and not a C-weighted noise metric is unsupported. To obtain federal funding for the sound insulation program, SFO must follow the federal guidelines, which require the A-weighted metric to determine eligibility.<sup>22</sup> A-weighted noise metrics are one of the most widely used due to the frequency weighting.<sup>23</sup> C-weighting represents a flat response from approximately 80 Hertz (Hz) and 8,000 Hz with a smaller correction above and below this range and is typically inaudible to the average human ear. C-weighting is typically used when correlating human response to peak noise levels and noise induced hearing loss.

Regarding the claims that the Draft EIR analysis does not consider reverse flow of departures that would occur during construction, pilots as well as Air Traffic Control will always prioritize the safety of aircraft and passengers by using the runway that is best suited for prevailing winds. Additionally, while Runway 10L-28R is closed, any operations that were expected on those runways would be moved to Runway 10R-28L. The same assumption applies during the closure of Runway 10R-28L. These temporary runway closures were modeled using the FAA's noise modeling analysis methodology, as described in Section 4.B.4, Impacts and Mitigation Measures, p. 4.B-25; therefore, the analysis of aircraft noise during construction, as discussed under Impact NO-3, p. 4.B-38, does consider impacts related to temporary changes to aircraft operations and is adequately analyzed in the Draft EIR. The analysis determined that the proposed project would cause temporary increases of 1.5 dB or more in aircraft noise. However, increases would occur only over Airport property and would not occur over any noise-sensitive land uses; therefore, the impact is identified as less than significant in the Draft EIR.

Comments A-Millbrae-13 and I-Schneider2-16 identify the commenters' concerns regarding the SFO noise insulation program. These comments raise no issues relevant to the Draft EIR; as such, the comments do not pertain to the adequacy, accuracy, or completeness of the Draft EIR's analysis of the proposed project's physical environmental impacts and thus do not require further response.

### 4.E.3 Comment NO-3: Ground-Based Noise

This response addresses the following comments, which are quoted below:

I-Schneider2-22

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"I am a fourth generation San Franciscan. My family helped build San Francisco in the early 1900s (Folsom Street Ironworks). My parents and I moved to Millbrae in 1967 and to our current home in 1974. The Palm Ave house was insulated by SFO, (but windows were not caulked or installed correctly leading to significant damage to the framing and sheathing that I replaced in 2007. We have lived through the changes in jet engines for in flight noise that has led to the shrinkage of noise contours. These contours do not reflect

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<sup>22</sup> FAA Advisory Circular 150/5000-9B, *Guidelines for Sound Insulation of Structures Exposed to Aircraft Noise*, Ch 8, June 2022, [https://www.faa.gov/documentLibrary/media/Advisory\\_Circular/150-5000-9B-Sound-Insulation-2022.pdf](https://www.faa.gov/documentLibrary/media/Advisory_Circular/150-5000-9B-Sound-Insulation-2022.pdf), accessed February 8, 2023.

<sup>23</sup> Frequency weightings correlate objective sound levels with subjective human response. Human hearing is frequency selective, primarily between 500 Hertz (Hz) and 6,000 Hz, compared to the overall hearing range of 20 Hz to 20,000 Hz. The human subjective response is dependent on loudness and frequency. A-weighting is most commonly used as it represents the most sensitive frequencies of human hearing (500 Hz to 6,000 Hz).



reality. Intense, long lasting and frequent departure noise and vibrations blast our house. The spectral analysis models showed consistent noise levels on my street, on my block of over 76 dbL. When I read this DEIR, I can see that many of the assumptions are just plain wrong, that new information is not included. Reaching out to the City of Millbrae would have provided areas that should have been included in this DEIR and are not.” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-22, NO-3]*)

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### **RESPONSE NO-3**

The commenter describes the history of their family settling in Millbrae and the renovations to their house. The commenter then states that SFO’s noise contours have shrunk over time and no longer reflect reality. The commenter then references a report that shows noise levels on their street, claims without substantial evidence that the assumptions in the Draft EIR are wrong, and states that SFO should have reached out to the City of Millbrae to discuss the analysis approach.

Regarding the commenter’s disclosure of their family history and home renovations, and the comment that SFO’s published noise contours have shrunk and no longer reflect reality, these comments are noted but do not pertain to the adequacy, accuracy, or completeness of the Draft EIR’s analysis of the proposed project’s physical environmental impacts and thus do not require further response. With regard to the comment that SFO should have reached out to the City of Millbrae to discuss the noise analysis approach, the City of Millbrae received the NOP published and distributed on November 25, 2020. The City submitted a comment letter but did not provide any specific recommendations on how noise impacts should be analyzed.

The comment discussing noise levels on their street and suggesting that the existing environmental noise condition may exceed some threshold is also noted. The aircraft noise analysis presented in Section 4.B.4, Impacts and Mitigation Measures, under Impact NO-3, p. 4.B-38, analyzed potential impacts related to temporary runway closures during construction of the proposed project based on noise modeling conducted to support the analysis, and determined that the impact would be less than significant. The commenter does not present any substantial evidence to support the claim that the assumptions in the Draft EIR regarding the aircraft noise analysis are erroneous; thus, no further response is required.

## **4.F Air Quality [AQ]**

The comments and corresponding responses in this section cover the subjects included in Draft EIR Section 4.C, Air Quality. The comment topics relate to:

- AQ-1: Air Quality Mitigation Measures
- AQ-2: Air Quality Impacts



#### 4.F.1 Comment AQ-1: Air Quality Mitigation Measures

This response addresses the following comments, which are quoted below:

A-BAAQMD-1

A-BAAQMD-2

A-BAAQMD-3

A-BAAQMD-4

A-BAAQMD-5

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- “Mitigation Measure M-AQ-3a (M-AQ-3a): Clean Off-Road Construction Equipment, Subsection 1a states: ‘All portable engines, such as generators, shall be electric. If grid electricity is not available, propane or natural gas generators shall be used if feasible.’
    - The Air District recommends that M-AQ-3a require that if grid electricity is not available, that alternative power be evaluated for feasibility before considering propane and natural gas generators, and editing M-AQ-3a to state that ‘if grid electricity is not available, alternative power such as but not limited to, battery storage and hydrogen fuel cells shall be considered for feasibility before consideration of propane and natural gas generators. Only if no other options are available, Final Tier 4 generators or generators using Best Available Control Technology (BACT) that meets CARB’s Final Tier 4 emission standards shall be used with renewable diesel fuel.’” (Greg Nudd, Deputy Air Pollution Control Officer, Bay Area Air Quality Management District, Letter, 10/17/2022 [A-BAAQMD-1, AQ-1])
  - “Mitigation Measure M-AQ-3b: Clean On-Road Trucks Subsection 1a states: ‘All on-road heavy-duty diesel trucks with a gross vehicle weight rating of 19,500 pounds or greater used at the project site (such as haul trucks, water trucks, dump trucks, concrete trucks, and vendor trucks) shall be model year 2018 or newer.’
    - The Air District recommends replacing ‘2018 or newer’ truck language with, ‘Medium and Heavy-Duty diesel on-road vehicles should be no more than eight years old, or powered by zero or near zero-emissions technology, as certified by the California Air Resources Board, whenever feasible.’” (Greg Nudd, Deputy Air Pollution Control Officer, Bay Area Air Quality Management District, Letter, 10/17/2022 [A-BAAQMD-2, AQ-1])
  - “Mitigation Measure M-AQ-3c: Electric Worker Shuttles – The Air District supports the use of electric shuttles to transport construction workers from parking areas to each construction site. The Air District recommends adding language to implement a program that incentivizes construction workers to carpool, use EVs, or use public transit to commute to and from the parking areas and/or each construction site. The program may include the following features, as feasible: providing a shuttle service to and from BART; preferential parking to carpool vehicles, vanpool vehicles, and EVs; and scheduling work shifts to be compatible with the schedules of local transit services.” (Greg Nudd, Deputy Air Pollution Control Officer, Bay Area Air Quality Management District, Letter, 10/17/2022 [A-BAAQMD-3, AQ-1])

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- “Mitigation Measure M-AQ-3d: Clean Marine Vessels – The Air District supports the inclusion of language stating that engines will ‘meet or exceed’ U.S. Environmental Protection Agency or California Air Resources Board Tier 4 Marine Engine emission standards. To reduce idling emissions, the Air District recommends that the main propulsion engines be shut off and the provision of shoreside electrical connections, where feasible, to reduce emissions from onboard auxiliary engines when marine vessels are anchored, tied to shore or at berth.” *(Greg Nudd, Deputy Air Pollution Control Officer, Bay Area Air Quality Management District, Letter, 10/17/2022 [A-BAAQMD-4, AQ-1])*
  - “Mitigation Measure M-AQ-3e: Offset Remaining Construction Emissions – The Air District strongly supports the implementation of all available on-site emission reduction measures before relying on off-site measures. This type of ‘exhaust all options first’ language should be added to the introductory paragraph of this measure.” *(Greg Nudd, Deputy Air Pollution Control Officer, Bay Area Air Quality Management District, Letter, 10/17/2022 [A-BAAQMD-5, AQ-1])*
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### RESPONSE AQ-1

The commenter requests minor revisions to mitigation measures pertaining to clean off-road construction equipment, clean on-road trucks, electric worker shuttles, clean marine vessels, and implementation of emissions offset projects.

In comment A-BAAQMD-1, the commenter requests that Mitigation Measure M-AQ-3a be revised to require evaluating the feasibility of alternative power, such as hydrogen fuel cell and battery backups, for diesel generators before allowing the use of propane and natural gas generators when grid electricity is not available. The commenter also requests a provision be added to require all diesel generators to meet California Air Resources Board’s Final Tier 4 emissions standards or use Best Available Control Technology (BACT). This is already required by item 1.c. of Mitigation Measure M-AQ-3a, so no changes to the mitigation measure are needed to address this comment. In response to this comment, item 1.a. of Mitigation Measure M-AQ-3a, Draft EIR p. 4.C-42, has been revised as follows:

- a. All portable engines, such as generators, shall be electric. If grid electricity is not available, alternative power such as, but not limited to, battery storage and hydrogen fuel cells, shall be considered for feasibility before considering propane or natural gas generators shall be used if feasible. Only if these alternative sources of power are not feasible, as determined by the ERO in consultation with SFO, then portable engines shall meet the requirements of 1.c.

The commenter also requests a provision be added to require all diesel generators use renewable diesel fuel. Although item 1.d. of Mitigation Measure M-AQ-3a requires use of alternative fuels (which could include renewable diesel), item 1.d. of Mitigation Measure M-AQ-3a has been revised as follows:

- d. Engines shall be fueled with alternative fuels as commercially available and to the maximum extent feasible during each construction phase and activity. This may include renewable diesel, natural gas, propane, hydrogen fuel cell, and electricity.

In comment A-BAAQMD-2, the commenter requests that Mitigation Measure M-AQ-3b be revised to require on-road heavy-duty trucks to have engines that are no more than eight years old, instead of engines that are

model year 2018 or newer. In response to this comment, an analysis was conducted to determine how this would affect the proposed project's total annual NO<sub>x</sub> emissions and thereby reduce the significant and unavoidable impact on air quality.<sup>24</sup> A technical memorandum that documents this analysis is included as Attachment D to this RTC document. The analysis concluded that the eight-year-old engine requirement would have a minor beneficial effect on the proposed project's NO<sub>x</sub> emissions as compared to the current requirement of model year 2018 or newer engines. Specifically, during the years when construction of the proposed project would exceed the NO<sub>x</sub> emissions thresholds and have a significant impact on air quality (2025–2028), the eight-year-old engine requirement would only reduce total NO<sub>x</sub> emissions by 0.1 percent. This is largely due to two reasons: (1) the NO<sub>x</sub> emission rates under each engine requirement are very similar during 2025–2028; and (2) the majority of NO<sub>x</sub> emissions in the mitigated scenario are driven by marine sources and not on-road trucks (e.g., on-road vehicles contribute only 9 percent of total NO<sub>x</sub> emissions in 2025 for the proposed project).

In later years of construction, the reduction in NO<sub>x</sub> that would result from the proposed change to Mitigation Measure M-AQ-3b is slightly greater given that on-road truck engines would be several years newer as compared to the model year 2018 requirement. For example, from 2030 to 2031, the eight-year-old engine requirement would only reduce total NO<sub>x</sub> emissions by 2.1 to 2.5 percent. However, mitigated NO<sub>x</sub> emissions do not exceed the threshold during these years.

In addition, the current requirement of model year 2018 or newer engines is easier to implement and enforce, which would likely increase the level of compliance as compared to the proposal that on-road truck engines be no older than eight years. This is because the model year 2018 or newer requirement is a fixed contractual obligation, while the eight-year-old engine requirement is a shifting obligation with a new requirement each year. SFO and planning department staff would need to audit the on-road truck fleet each year of construction from 2025–2031 to ensure that the trucks are turning over regularly to meet this requirement. Implementing and enforcing an eight-year-old engine requirement would be much more complex, burdensome, and costly, and would produce little additional NO<sub>x</sub> reduction for the years when the proposed project would exceed the NO<sub>x</sub> threshold, while increasing the risk of non-compliance due to these added enforcement burdens. For these reasons, no changes to Mitigation Measure M-AQ-3b were made in response to this comment.

In comment A-BAAQMD-3, the commenter requests that Mitigation Measure M-AQ-3c be revised to include a program to incentivize construction workers to use alternative modes of transportation (such as carpools or public transit) to commute to the project site. In response to this comment, Mitigation Measure M-AQ-3c has been revised as follows:

The project sponsor or the project sponsor's contractor shall use electric shuttles to transport construction workers from the worker parking area(s) to each construction site, including all reaches, the Aviator Lot, and any other construction staging or activity areas. No fossil fuel shuttles shall be permitted. The procurement and use of all electric shuttles shall be documented and submitted to the San Francisco Planning Department for review and approval. The project sponsor shall also incentivize construction workers to carpool, use electric vehicles (EVs), or use public transit to commute to and from the worker parking areas and/or each construction site. This may

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<sup>24</sup> Environmental Science Associates, *Memorandum: San Francisco International Airport Shoreline Protection Program – Technical Support Documentation for Final EIR Response AQ-1*, San Francisco, CA, March 9, 2023.

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##### 4.F. Air Quality [AQ]

include the following features: preferential parking for carpool vehicles, vanpool vehicles, and EVs; access to EV charging stations; and discounts on EV charging fees.

The commenter also suggests that Mitigation Measure M-AQ-3c be revised to include a shuttle service for workers to get to and from BART and scheduling work shifts to be compatible with the schedules of local transit services. Regarding the BART shuttle, AirTrain service is available for construction workers to use to travel from the SFO BART station to the worker parking area where the electric shuttles are located. AirTrain service operates 24 hours a day. Regarding work shift scheduling, the majority of construction worker shifts would occur when BART service is available. However, as stated on Draft EIR p. 2-77, during construction of Reaches 7, 8, 9, 10, 11, 13, and 14, the proximity of construction equipment to the runways would require the temporary closure of certain runways to aircraft operations for several hours each day. To minimize disruptions to aircraft operations, the runway closures would occur between 12 a.m. and 6 a.m., when aircraft operations are at their lowest. Therefore, there would be certain work shifts that must occur when transit service is limited or unavailable. Adjusting work shifts to fully align with transit service for the entire duration of project construction is not feasible given the runway closures necessary to construct the proposed project.

In comment A-BAAQMD-4, the commenter requests that Mitigation Measure M-AQ-3d be revised to require that marine vessels shut off their main propulsion engines when marine vessels are anchored, tied to shore or at berth, as feasible. In response to this comment, new item 1.c. has been added to Mitigation Measure M-AQ-3d as follows:

c. All marine vessels shall shut off their main propulsion engines when anchored, tied to shore, or at berth, or not otherwise using their main propulsion engines for maneuvering or transiting.

The commenter also requests that marine vessels use shoreside electrical connections, where feasible. While this was considered during the preparation of the Draft EIR, it was determined not feasible for the project sponsor to provide shoreside electrical power at the project site. Installing shoreside electrical power along the reaches for which marine vessels are needed for construction (Reaches 7, 8, and 9), which is over one mile of shoreline, would be an incredibly costly and time-consuming project that would result in significant disruption to aircraft operations. Installing shoreside power along these reaches would require the shutdown of active runways for likely extended periods of time, which would be operationally prohibitive for SFO. Installing shoreside power would also be an immensely costly project and would only serve the purpose of reducing the proposed project's temporary NO<sub>x</sub> emissions impact from 2025 to 2028; after that it would go unused given that no vessels can dock along the Airport's shoreline. Therefore, given that installing permanent shoreside electrical power would significantly disrupt aircraft operations, would be incredibly costly, and would only serve to reduce a temporary construction-related impact, requiring the Airport to install permanent shoreside power to mitigate the temporary impact was determined to be infeasible.

In comment A-BAAQMD-5, the commenter requests that Mitigation Measure M-AQ-3e be revised to require the project applicant to "exhaust" all onsite emissions reduction measures before relying on off-site measures. It is noted that the introductory language to Mitigation Measure M-AQ-3e specifies that the measure shall be implemented after implementation of Mitigation Measure M-AQ-3a through M-AQ-3d, which are designed to reduce the proposed project's emissions. Additionally, Mitigation Measure M-AQ-3e specifies that the first priority for implementing a specific emission offset project shall be a project at the

Airport. Nevertheless, in response to this comment, item 1 of Mitigation Measure M-AQ-3e has been revised as follows:

1. *Directly fund or implement a specific offset project within the San Francisco Bay Area Air Basin.* Emission reduction projects shall occur in the following locations in order of priority to the extent available: (1) at the airport; (2) off-site within the neighborhood surrounding the project site; (3) within the cities of South San Francisco, San Bruno, or Millbrae; (4) within the County of San Mateo; and (5) within the San Francisco Bay Area Air Basin. The project sponsor shall consider all options available at the Airport (option #1) before implementing off-site projects (options #2 through #5). Any offsite emission reduction projects are subject to the approval by the City. Such projects could include strategies and control measures such as zero-emission trucks, upgrading locomotives with cleaner engines, replacing existing diesel stationary and standby engines with Tier 4 diesel or cleaner engines, or expanding or installing energy storage systems (e.g., batteries, fuel cells) to replace stationary sources of pollution. Prior to implementing the offset project, it must be approved by the planning department, as consistent with the requirements of this mitigation measure.

#### 4.F.2 Comment AQ-2: Air Quality Impacts

This response addresses the following comments, which are quoted below:

A-Millbrae-16

I-Schneider2-19

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“The entire DEIR is based on quite a few false assumptions or assumptions based on inadequate research like the age of the Westin, or that the California Air Resources Board is responsible for monitoring air pollution from SFO. CARB does not monitor mobile sources in the air. They point to the US EPA, this is also the case for noise. So again the DEIR is based on false information. To my knowledge no agency is monitoring air quality even as the FAA at the Oct 2019 SFORT admitted that new science shows jet engines releases very significant amounts of PM2.5 and smaller. So all those flights SFO diverts over Millbrae from R19 departures, R1 arrivals and over flights (of which there is no reporting system as you refer to in the DEIR – 3-11) and just hundreds of feet over Millbrae bedrooms and backyards are polluting the City of Millbrae, Burlingame and Hillsborough. The DEIR doesn't even note the height over homes these flights, which will increase during the construction phase. This is yet another inadequacy in the DEIR. The final EIR should honestly record, evaluate and describe the real impact of all SFO operations before, during construction and after on the close in communities.” (*City of Millbrae, Letter, 10/17/2022 [A-Millbrae-16, AQ-2]*)

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“To be honest the entire DEIR is based on quite a few false assumptions or assumptions based on inadequate research like the age of the Westin, or that the California Air Resources Board is responsible for monitoring air pollution from SFO. CARB does not monitor mobile sources in the air. They point to the US EPA; this is also the case for noise. So again, the DEIR is based on false information. To my knowledge no agency is monitoring air quality even as the FAA at the Oct 2019 SFORT admitted that new science shows jet engines releases very significant amounts of PM2.5 and smaller. So, all those flights SFO diverts over Millbrae from R19 departures, R1 arrivals and over flights (of which there is no reporting system as you refer to in the DEIR –

#### 4. Draft EIR Revisions

##### 4.F. Air Quality [AQ]

3-11) and just hundreds of feet over Millbrae bedrooms and backyards are polluting the City of Millbrae, Burlingame and Hillsborough. And likely causing health impacts to our residents. There is no discussion of this in the DEIR so it the DEIR is inadequate. The DEIR doesn't even note the height over homes these flights, which will increase during the construction phase. This is yet another inadequacy in the DEIR. The final EIR should honestly record, evaluate and describe the real impact of all SFO operations before, during construction and after on the close in communities including health impacts and quality of life impacts.”  
*(Ann Schneider, Letter, 10/17/2022 [I-Schneider2-19, AQ-2])*

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## RESPONSE AQ-2

The commenters make several statements and claims about the inadequacy of the Draft EIR with regard to the age of the Westin Hotel, the agency responsible for monitoring air quality, and that the Draft EIR does not address air quality health impacts on residents in areas adjacent to SFO.

First, the commenters claim that the Draft EIR includes false information about air pollution monitoring, such as the California Air Resources Board (CARB) is responsible for monitoring air pollution from SFO. The commenter claims that CARB does not directly monitor mobile sources in the air. This is accurate. CARB does not explicitly monitor air pollutants originating from aircraft. However, the Draft EIR does not claim that CARB does so. Draft EIR p. 4.C-2 states that the Bay Area Air Quality Management District (air district) has jurisdiction to regulate air quality within the nine-county air basin and operates and maintains a regional air quality monitoring network that provides information on ambient concentrations of criteria air pollutants at various locations in the San Francisco Bay Area. These monitoring stations do not monitor air pollution from specific sources, like aircraft; they monitor ambient concentrations from all sources. The closest monitoring station to the project site is at 16th and Arkansas streets in San Francisco, approximately 9 miles north of the project site. The results of these monitoring data are presented in Table 4.C-1 (Draft EIR p. 4.C-3). In addition, Draft EIR p. 4.C-10 states that both the air district and CARB operate toxic air contaminant monitoring networks in the air basin. The results of these monitoring data are presented in Table 4.C-4 (Draft EIR p. 4.C-11).

The commenters also claim that no agency monitors air quality, which is incorrect as discussed above. Both the air district and CARB monitor regional ambient pollutant concentrations. It is possible that the commenter meant to say that no agency monitors air pollution from aircraft operations at SFO, which is accurate. However, this is not relevant to the adequacy or accuracy of the Draft EIR's analysis of the proposed project's air quality impacts and thus does not require further response.

The commenters state that aircraft operating over SFO emit air pollutants that have health impacts on residents in the cities of Millbrae, Burlingame, and Hillsborough. The commenters also state that aircraft operations will increase during construction of the proposed project and that this would have health impacts on nearby residents. As discussed on Draft EIR p. 2-75, the proposed project would result in the closure of certain runways during construction, as shown in Draft EIR Table 2-5, p. 2-76. However, these closures would be temporary in nature and would not permanently alter or increase aircraft operations at the Airport. To minimize disruptions to aircraft operations, the runway closures would occur between 12 a.m. and 6 a.m., when aircraft operations are at their lowest. In addition, the runways and taxiways are located outside of the

1,000-foot “zone of influence” radius from the nearest sensitive receptors,<sup>25</sup> so any minor changes associated with temporary runway closures and aircraft re-routing due to construction of the proposed project would have a minimal health risk effect on sensitive receptors. Furthermore, aircraft disruptions would occur during overnight hours to minimize changes in aircraft operations; therefore, the health impacts would likely be very small or negligible at the closest sensitive receptor locations. For these reasons, the proposed project would not result in human health impacts associated with changes to aircraft operations compared to existing conditions. In addition, the commenters have not provided any substantial evidence to support the claim that aircraft operations would increase with implementation of the proposed project.

Finally, the commenters request that the EIR evaluate the health and quality of life impacts of all SFO aircraft operations before construction of the proposed project, during construction of the proposed project, and after construction of the proposed project is complete. As described in Chapter 2, Project Description, of the Draft EIR, the proposed project would remove the existing shoreline protection features and construct a new shoreline protection system. While the closure of certain runways would be necessary to accommodate construction of the proposed project, these closures would be temporary in nature and would not permanently alter aircraft operations at the Airport. Therefore, the proposed project would not result in an increase in aircraft operations. As stated on Draft EIR p. 4.C-22, the proposed project also would not result in any new operational air quality emissions from either stationary sources (e.g., backup generators) or increases in vehicle traffic. As such, because the proposed project would not result in operational changes that would affect air emissions, assessing the scope and impact of operational aircraft emissions is outside the scope of the Draft EIR.

See Response NO-1, p. 4-18, regarding the comment on the age of the Westin Hotel.

## 4.G Biological Resources [BI]

The comments and corresponding responses in this section cover the subjects included in Draft EIR Section 4.D, Biological Resources. The comment topics relate to:

- BI-1: Impacts to Species
- BI-2: Mitigation Measures
- BI-3: Compensatory Mitigation
- BI-4: Noise Exposure on Fish
- BI-5: Reporting and Filing Fees
- BI-6: Compensatory Mitigation for Piers 30–32

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<sup>25</sup> The 1,000-foot radius is the “zone of influence” recommended by the air district for considering existing background and cumulative sources of health risk. Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017, p. 2-2 and D-38, [http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en), accessed February 2023.

### 4.G.1 Comment BI-1: Impacts to Species

This response addresses the following comments, which are quoted below:

A-BCDC-6

A-CDFW-1

A-CDFW-2

A-CDFW-3

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“Protection of biological resources, including wildlife and habitat, is addressed through several sections of the Bay Plan. Fish, Other Aquatic Organisms, and Wildlife Policy No. 1 states ‘To assure the benefits of fish, other aquatic organisms and wildlife for future generations, to the greatest extent feasible, the Bay's tidal marshes, tidal flats, and subtidal habitat should be conserved, restored and increased.’ Furthermore, Tidal Marshes and Tidal Flats Policy No. 2 states that ‘Any proposed fill, diking, or dredging project should be thoroughly evaluated to determine the effect of the project on tidal marshes and tidal flats, and designed to minimize, and if feasible, avoid any harmful effects.’ Additional policies in these Bay Plan sections, and policies in the Subtidal Areas section, provide further requirements on protection of the Bay’s natural resources.

Furthermore, Section 4.D.3 of the DEIR discusses the regulatory framework regarding biological resources. Page 4.0-27 identifies BCDC as a state regulatory entity with respect to wetlands and other waters and page 4.0-30 discusses policies of the Bay Plan applicable to wildlife, but these portions of DEIR discussion do not address the Bay Plan Mitigation Policies. The proposed project is anticipated to have approximately 26 acres of open water habitat impacts and three acres of tidal wetland impacts. These permanent impacts will need to be mitigated. Please see the mitigation policy discussion below.

The DEIR describes a number of methods that will be used to minimize direct impacts to species present near the project site, their habitat, and water quality. Please note that some of the proposed construction methods themselves may also lead to some temporary impacts or even take of listed species, such as dewatering and pumping activities, that may also require mitigation. Such mitigation should also be discussed in the DEIR.” (*Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-6, BI-1]*)

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“**Comment:** The DEIR describes Reaches 7 and 8 as requiring dewatering after installation of the inner and outer sheet piles. Approximately 164,200 cubic yards (~101.77-acre feet) of water will be pumped out of Reach 7 and approximately 79,200 cubic yards (49.09-acre feet) of water will be pumped out of Reach 8. As described in the DEIR, there is potential for special status species to be trapped within the areas needing to be dewatered and there is the potential for take to occur.

Mitigation Measure M-BI-1f: Prevention of Fish Entrapment and Entrainment During Dewatering describes the fish rescue efforts that would be put in place during dewatering activities at Reach 7 and 8. The rescue plan would include actively capturing and removing stranded fish via a seine or dip net and preservation of any dead fish collected.



The activities associated with dewatering the area between the sheet pile walls and fish rescue plan would both constitute take if any state listed species were to be entrained, impinged, stranded, or collected within the dewatered areas. Additionally, CDFW has more strict screening criteria (attachment 1) than the National Marine Fisheries Service (NMFS) given the presence of Longfin Smelt. NMFS screening criteria for salmonids is not sufficient to meet the screen opening and approach/sweeping velocities that are necessary to prevent entrainment and impingement of Longfin smelt.

**Recommendation:** CDFW recommends SFO consult with CDFW on potentially obtaining a 2081(b) Incidental Take Permit (ITP) to cover any incidental take of state listed species that may occur from dewatering and fish removal activities.

**Recommendation:** CDFW recommends the final EIR include updated screening criteria to account for the potential presence of Longfin smelt in the dewatered reaches. Additionally, SFO should consult with CDFW prior to constructing screens for the dewatering pumps to ensure the screens meet our screen criteria for Delta smelt, which are the same criteria used for Longfin smelt. CDFW's approval of the screen will require review by CDFW biologists and screen engineers to ensure the screens will meet the required approach and sweeping velocities.

**Recommendation:** CDFW recommends that the fish rescue plan described in Mitigation Measure M-BI-1f be provided to all the permitting agencies as a draft for review and approval prior to the start of construction at Reaches 7 and 8. The fish rescue plan would be included as a minimization and monitoring measure in CDFW's approval of the Project." (Becky Ota, Habitat Conservation Program Manager, Marine Region, California Department of Fish and Wildlife, Letter, 10/21/2022 [A-CDFW-1, BI-1])

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**Comment:** The DEIR discusses dredging needed within Reaches 7 and 8 prior to dewatering and sheet pile installation with approximately 147,200 cubic yards being removed in Reach 7 and 33,800 cubic yards removed from Reach 8. However, the DEIR does not describe the methods that would be used to dredge each reach and whether a clamshell or suction dredge would be used or considered. The methods used to complete the dredging at each reach is important and would determine whether CDFW may need to exercise its regulatory authority on this Project activity. Suction dredging has been shown to entrain and impinge state listed species within San Francisco Bay and would necessitate consultation with CDFW on take coverage to operate in waters of the state.

**Recommendation:** CDFW recommends Mitigation Measure M-HY-1a: In-Water Construction Water Quality Management Plan, include that only mechanical dredging will be used during the Project. If suction dredging is being considered, it should be specifically identified, and avoidance and minimization measures included, in the dredging discussion of the final EIR.

**Recommendation:** CDFW recommends SFO consult with CDFW on potentially obtaining a 2081(b) Incidental Take Permit (ITP) to cover any incidental take of state listed species that may occur from suction dredging if it is determined to be a method of dredging Reaches 7 and 8." (Becky Ota, Habitat Conservation Program Manager, Marine Region, California Department of Fish and Wildlife, Letter, 10/21/2022 [A-CDFW-2, BI-1])

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**“Comment:** The proposed Project would involve a substantial amount of pile driving over the duration of the Project. Pile driving and pile removal would occur throughout the 10.5 miles of shoreline within the Project footprint and would consist of vibratory and impact hammering.

The underwater sound minimizations measures proposed which include a soft start, use of a bubble curtain, use of vibratory hammer, and conducting pile driving and pile removal during the CDFW and NMFS approved in-water work window of June 1 through November 30, are generally consistent with CDFW recommendations. However, given the extent of the geographical area that will be impacted by underwater sound created by pile driving and the duration of the proposed Project, potential impacts to sensitive aquatic species may be unavoidable. Additionally, the approved in-water work window is protective of salmonids and Pacific herring, but it is not protective of Longfin smelt which would be expected to be present near the Project area in higher densities during the summer and fall months.

**Recommendation:** CDFW recommends SFO consult with CDFW on potentially obtaining a 2081(b) Incidental Take Permit (ITP) to cover any incidental take of state listed species that may occur from pile driving and removal activities.

**Recommendation:** CDFW recommends including CDFW in the final EIR as a reviewing and consulting agency for the sound attenuation monitoring plan described in Mitigation Measure M-BI-1g: Fish and Marine Mammal Protection during Pile Driving. The sound attenuation monitoring plan would be a condition of approval for any CDFW authorization issued for the Project.” *(Becky Ota, Habitat Conservation Program Manager, Marine Region, California Department of Fish and Wildlife, Letter, 10/21/2022 [A-CDFW-3, BI-1])*

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## RESPONSE BI-1

The comments identify BCDC San Francisco Bay Plan policies that seek to protect biological resources of the bay, including tidal marsh, tidal flat, and subtidal habitats, and avoid and minimize effects to such resources. The commenters recommend discussion of mitigation that may be needed to address impacts to listed species due to construction methods, such as dewatering and pumping activities; SFO consultation with the California Department of Fish and Wildlife (CDFW) on potentially obtaining a 2081(b) Incidental Take Permit (ITP) to cover any incidental take of state listed species that may occur from dewatering, fish removal, dredging, pile driving and removal activities; including screening criteria to account for the potential presence of Longfin smelt in the dewatered reaches; coordination with CDFW prior to constructing screens for the dewatering pumps to ensure the screens meet CDFW’s criteria for Longfin Smelt; and providing the fish rescue plan described in Mitigation Measure M-BI-1f to all the permitting agencies as a draft for review and approval prior to the start of construction at Reaches 7 and 8.

The commenters recommend that Mitigation Measure M-HY-1a, In-Water Construction Water Quality Management Plan, Draft EIR pp. 4.F-36 to 4.F-37, include that only mechanical dredging be used or, if suction dredging is being considered, include avoidance and minimization measures for suction dredging; and include CDFW as a reviewing and consulting agency for the sound attenuation monitoring plan described in Mitigation Measure M-BI-1g, Fish and Marine Mammal Protection during Pile Driving. The comments recommend that the sound attenuation monitoring plan be a condition of approval for any CDFW authorization issued for the proposed project.

In response to comment A-BCDC-6, Mitigation Measure M-BI-1f, Prevention of Fish Entrapment and Entrainment during Dewatering, Draft EIR pp. 4.D-43 to 4.D-46, addresses potential impacts to fish during dewatering/pumping activities and requires a Fish Rescue and Salvage Plan to remove fish from construction zones, prevent fish from reentering construction zones prior to dewatering and other construction activities, and remove fish that become trapped. Capture, release, and relocation measures would be consistent with the general guidelines and procedures set forth in Part IX of the most recent edition of the California Salmonid Stream Habitat Restoration Manual to minimize impacts on listed species of fish and their habitat and the mitigation measure outlines detailed fish collection, holding, handling, and release procedures of the plan. In addition, the mitigation measure requires that dewatering pump intakes be screened to prevent entrainment of fish.

In response to comments A-BCDC-6, A-CDFW-1, A-CDFW-2, and A-CDFW-3, if potential impacts on state-listed species are identified and cannot be avoided or minimized, SFO would coordinate with CDFW about obtaining incidental take coverage, as recommended by BCDC and CDFW.

In response to comment A-CDFW-1, the following language for Mitigation Measure M-BI-1f, Prevention of Fish Entrapment and Entrainment during Dewatering, Draft EIR p. 4.D-45, is amended as follows:

Dewatering shall be performed in coordination with fish rescue operations as described above. A dewatering plan shall be submitted as part of the Storm Water Pollution Prevention Plan/Water Pollution Control Program, detailing the location of dewatering activities, equipment, and discharge point. Dewatering pump intakes shall be screened to prevent entrainment of fish in accordance with NMFS screening criteria for salmonid fry,<sup>324</sup> for diversions that are less than 40 cubic feet per second (cfs), including the following:

- Perforated plate: screen openings shall not exceed 3/32 inch (2.38 mm), measured in diameter.
- Profile bar: screen openings shall not exceed 0.0689 inch (1.75 mm) in width.
- Woven wire: screen openings shall not exceed 3/32 inch (2.38 mm), measured diagonally (e.g., 6–14 mesh).
- Screen material shall provide a minimum of 27% open area. During the dewatering process, a qualified biologist or fish rescue team shall remain onsite to observe the process and remove additional fish, using the rescue procedures described above.

For diversions that are equal to or greater than 40 cfs, the project sponsor shall follow the dewatering guidance provided in Exhibit A, Department of Fish and Game Fish Screening Criteria, June 19, 2000, available at <https://www.noaa.gov/sites/default/files/legacy/document/2020/Oct/07354626804.pdf>.

In response to comment A-CDFW-1, regarding the review and approval of the Fish Rescue and Salvage Plans, as stated in the first paragraph on Draft EIR p. 4.D-44, “A draft plan shall be submitted to the fish and wildlife agencies for review and approval. An authorization letter from the National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service (USFWS), and the California Department of Fish and Wildlife (CDFW) will be required before in-water construction activities with the potential for stranding fish can proceed.”

In response to comment A-CDFW-2, as discussed under Impact HY-1, p. 4.F-31, mechanical dredging would be conducted by clamshell dredge and would be exclusively used during construction of the proposed project. Suction dredging is not proposed.

In response to comment A-CDFW-3, Mitigation Measure M-BI-1g, Fish and Marine Mammal Protection during Pile Driving, Draft EIR p. 4.D-48, is revised as follows:

**Mitigation Measure M-BI-1g: Fish and Marine Mammal Protection during Pile Driving.** Prior to the start of any in-water construction that would require pile driving, the Airport shall prepare a National Marine Fisheries Service (NMFS)-approved and CDFW-approved sound attenuation monitoring plan to protect fish and marine mammals, and the approved plan shall be implemented during construction. ...

#### 4.G.2 Comment BI-2: Mitigation Measures

This response addresses the following comments, which are quoted below:

A-CDFW-4

A-CDFW-5

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**“Comment:** Within the DEIR, the construction of the shoreline protection system is described as placing fill in approximately 26 acres of San Francisco Bay. Although not fully described within each reach, the aquatic habitat that will be lost due to the Project is confirmed or potential habitat for numerous state and federally listed species as well as commercially and recreationally important species.

The loss of habitat for state listed species is an impact that CDFW would consider take. CDFW may need to exercise regulatory authority over the Project due to the potential loss of state listed species habitat and to ensure that the loss of habitat is fully mitigated for and minimized to the maximum extent possible. Additionally, the loss of habitat for commercial and recreationally important species should be minimized and mitigated for to offset the Project’s impacts.

**Recommendation:** CDFW recommends SFO consult with CDFW on potentially obtaining a 2081(b) Incidental Take Permit (ITP) to cover any incidental take of state listed species that may occur due to the loss of habitat from Project activities.

**Recommendation:** CDFW recommends the final DEIR provide additional detail on how the Project will offset the potential loss of habitat to aquatic species beyond those listed in Mitigation Measure M-BI-5b.” (*Becky Ota, Habitat Conservation Program Manager, Marine Region, California Department of Fish and Wildlife, Letter, 10/21/2022 [A-CDFW-4, BI-2]*)

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**“Comment:** The DEIR has identified a moderate potential for California black rail to occur in the Project area and has determined that California clapper rail is present within the Project. California clapper rail, also known as Ridgway’s Rail (CCR), is a State and federally endangered species. The California black rail (CBR) is a State threatened species. Both are fully protected species under Fish and Game Code section 3511. CDFW cannot authorize incidental take of a fully protected species except for necessary scientific research and recovery efforts. CDFW is concerned that Mitigation Measure M-BI-1c does not fully avoid impacts to CCR and CBR. The mitigation measure limits construction activities within 600 feet of suitable habitat during CCR and CBR breeding season. This distance may not be sufficient to avoid disruption of rail breeding activity. Nesting

rails are sensitive to noise and visual disturbance up to approximately 700 feet<sup>2</sup> from the disturbance source, which can cause nest abandonment and juvenile mortality.

**Recommendation:** CDFW recommends the following additions and changes to Mitigation Measure M-BI-1c.

- Mitigation Measure 1: CCR/CBR Avoidance Buffers - Project activities that can disrupt breeding rails shall not occur within 700 feet of an identified calling center. If the intervening distance across a major slough channel or across a substantial barrier between the CCR/CBR calling center and any activity area is greater than 200 feet, work may proceed at that location within the breeding season only after CDFW approval.
- Mitigation Measure 2: CCR/CBR High Tide Restriction - Project activities within or adjacent to CCR/CBR suitable habitat shall not occur within 2 hours before or after extreme high tides (6.5 feet or above, as measured at the Golden Gate Bridge). This is when the marsh plain is inundated and protective cover for CCR/CBR is limited.” (*Becky Ota, Habitat Conservation Program Manager, Marine Region, California Department of Fish and Wildlife, Letter, 10/21/2022 [A-CDFW-5, BI-2]*)

## RESPONSE BI-2

The commenters recommend that SFO consult with CDFW on potentially obtaining a 2081(b) ITP to cover any incidental take of state-listed species that may occur due to the loss of habitat from construction of the proposed project; recommend additions and changes to Mitigation Measure M-BI-1c to protect breeding California Ridgway’s rail and California black rail; and recommend that the Final EIR provide additional detail on how the proposed project would offset the potential loss of habitat to aquatic species beyond those listed in Mitigation Measure M-BI-5b.

In response to comment A-CDFW-4, as noted in Mitigation Measures M-BI-1c, Avoid and Minimize Impacts to California Ridgway’s Rail and California Black Rail, and M-BI-1f, Prevention of Fish Entrapment and Entrainment during Dewatering, pp. 4.D-38 and 4.D-46, respectively, SFO would coordinate with CDFW about obtaining incidental take coverage, as recommended by CDFW if there is potential for take of state listed species that may occur due to the loss of habitat from project activities.

In response to comment A-CDFW-4, SFO has been working and continues to work towards identifying like-for-like mitigation opportunities, including reaching out to the agencies; however, no applications for a mitigation package have yet been submitted. See Response BI-3, Compensatory Mitigation, for further discussion regarding comments pertaining to compensatory mitigation.

In response to comment A-CDFW-5, Mitigation Measure M-BI-1c, Avoid and Minimize Impacts to California Ridgway’s Rail and California Black Rail, Draft EIR pp. 4.D-36 to 4.D-38, is amended as shown below:

**Mitigation Measure M-BI-1c: Avoid and Minimize Impacts to California Ridgway’s Rail and California Black Rail.** To minimize or avoid the loss of individual California Ridgway’s rail or California black rail within suitable habitat (i.e., Reach 14), construction activities including vegetation management requiring heavy equipment adjacent to tidal marsh areas within 700 feet (183-213 meters) (600 feet) or a distance determined in coordination with the U.S. Fish and Wildlife

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<sup>2</sup> A 700-foot no-disturbance buffer is based on the average home range of nesting rails (Albertson 1995).

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**4.G. Biological Resources [BI]**

Service (USFWS) or the California Department of Fish and Wildlife (CDFW)), shall be avoided during the breeding season: February 1 through August 31.

If areas within or adjacent to rail habitat cannot be avoided during the breeding season, protocol-level surveys shall be conducted to determine rail nesting locations. The surveys shall focus on potential habitat that could be disturbed by construction activities during the breeding season to ensure that rails are not breeding in these locations.

Survey methods for rails shall follow the *Site-Specific Protocol for Monitoring Marsh Birds*, ~~which or~~ methods otherwise determined suitable in consultation with USFWS. The *Site-Specific Protocol for Monitoring Marsh Birds* was developed for use by USFWS and partners to improve bay-wide monitoring accuracy by standardizing surveys and increasing the ability to share data.<sup>26</sup> Surveys are concentrated during the approximate period of peak detectability, January 15 to March 25 and are structured to efficiently sample an area in three rounds of surveys by broadcasting calls of target species during specific periods of each survey round. Call broadcasts increase the probability of detection compared to passive surveys when no call broadcasting is employed. This protocol has since been adopted by Invasive Spartina Project (ISP) and Point Blue Conservation Science to survey California Ridgway's rails at sites throughout San Francisco Bay Estuary. A federal Endangered Species Act section 10(a)(1)(A) permit is required to conduct surveys. The survey protocol for California Ridgway's rail is summarized below.

- Previously used survey locations (points) should be used when available to maintain consistency with past survey results. Adjacent points should be at least 200 meters (656 feet) apart along transects in or adjacent to areas representative of the marsh. Points should be located to minimize disturbances to marsh vegetation. Up to eight points can be located on a transect.
- At each transect, three surveys (rounds) are to be conducted, with the first round of surveys initiated between January 15 and February 6, the second round performed February 7 to February 28, and the third round March 1 to March 25. Surveys should be spaced at least one week apart and the period between March 25 to April 15 can be used to complete surveys delayed by logistical or weather issues.
- Each point on a transect will be surveyed for 10 minutes each round. A recording of calls available from USFWS is broadcast at each point. The recording consists of 5 minutes of silence, followed by a 30-second recording of California Ridgway's rail vocalizations, followed by 30 seconds of silence, followed by a 30-second recording of California black rail, followed by 3.5 minutes of silence.

If no breeding California Ridgway's rails or California black rails are detected during surveys and the resources agencies concur with the findings, or if their breeding territories can be avoided by ~~600-700 feet (183-213 meters)~~ or by a distance established in coordination with the resources agencies, as explained above, then project activities may proceed at that location.

If protocol surveys determine that breeding California Ridgway's rails or California black rails are present in the project area, the following measures would apply to project activities ~~conducted~~

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<sup>26</sup> Wood, J. K., N. Nur, L. Salas, and O. M. W. Richmond, *Site-Specific Protocol for Monitoring Marsh Birds: Don Edwards San Francisco Bay and San Pablo Bay National Wildlife Refuges*, prepared for the U.S. Fish and Wildlife Service, Pacific Southwest Region Refuge Inventory and Monitoring Initiative, Point Blue Conservation Science, Petaluma, CA, 2017.

planned within ~~600-700~~ feet (~~183-213~~ meters) of a call center (i.e., presumed breeding location) during their breeding season (February 1 to August 31):

- Project activities that can disrupt breeding rails shall not occur within 700 feet (213 meters) of an identified calling center. If the intervening distance across a major slough channel or across a substantial barrier between the California Ridgway's rail or California black rail calling center and any activity area is greater than 200 feet, work may proceed at that location within the breeding season only after CDFW approval.
- With CDFW and USFWS approval, the 700-foot (213-meter) buffer distance may be reduced by the approved biologist to allow for Airport operations or project activities such as vehicle transit on the paved road, or other project activities that do not exceed the existing level of disturbance surrounding the project site (such as baseline noise and movements associated with typical Airport operations).
- A USFWS- and CDFW-approved biologist with experience recognizing California Ridgway's rail and California black rail vocalizations shall be on site during construction activities occurring within ~~600-700~~ feet (~~183-213~~ meters) of suitable rail breeding habitat.
- All biologists accessing the tidal marsh shall be trained in California Ridgway's rail and California black rail biology and vocalizations and will be familiar with both species of rail and their nests.
- During approved project activities within 700 feet (213 meters) of a call center, if a California Ridgway's rail or California black rail vocalizes or flushes within 33 feet (10 meters), it is possible that a nest or young are nearby. If an alarmed bird or nest is detected, work shall be stopped by an approved biologist, and workers shall leave the immediate area carefully and quickly. An alternate route shall be selected that avoids this area, and the location of the sighting will be recorded to inform future activities in the area.
- All crews working in the marsh during rail breeding season shall be trained and supervised by a USFWS- and CDFW-approved rail biologist.
- If any activities are conducted during the rail breeding season in California Ridgway's rail- or California black rail-occupied marshes, biologists shall have maps or GPS locations of the most current occurrences on the site and shall proceed cautiously and minimize time spent in areas where rails were detected.
- Project activities within or adjacent to California Ridgway's rail or California black rail suitable habitat shall not occur within 2 hours before or after extreme high tides (6.5 feet or above, as measured at the Golden Gate Bridge).
- All personnel walking in the marsh shall be required to limit time spent within 164 feet (50 meters) of an identified California Ridgway's rail or California black rail calling center to half an hour or less.

If a USFWS or CDFW take permit is issued for the project to address potential impacts to California Ridgway's rail or California black rail, the above measures would be superseded by permit conditions.



### 4.G.3 Comment BI-3: Compensatory Mitigation

This response addresses the following comments, which are quoted below:

A-BCDC-8

A-BCDC-9

A-CDFW-6

I-Zeppetello-2

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“In regard to Impact BI-5<sup>2</sup>, Mitigation Measure M-BI-5b states in relevant part that:

‘The Airport shall provide compensatory mitigation for placement of fill associated with installation of new structures in San Francisco Bay at all applicable reaches and fill of the seasonal wetlands in Reach 2B, as further determined by the regulatory agencies with authority over these features during the permitting process. Compensation may include compensatory mitigation, shoreline improvements or intertidal/subtidal habitat enhancements through removal of chemically treated wood material (e.g., pilings, deckings, etc.) by pulling, cutting, or breaking off piles at least 1 foot below mudline or removal of other unengineered debris (e.g., concrete-filled drums or large pieces of concrete), as well as creation, restoration, or enhancement of wetlands and waters.’

The DEIR indicates that the proposed project will result in permanent impacts to 26 acres of open Bay waters and three acres of impacts to Bay tidal wetlands. However, Mitigation Measure M-BI-5b (as well as Mitigation Measure M-BI-5a) is lacking because the project proponent has only cursorily consulted with BCDC regarding its proposal to mitigate for its projected fill of 26 acres of open waters of the Bay and three acres of wetlands. Thus, it is not apparent how the commitments of Mitigation Measure M-BI-5b (or M-BI-5a) will realistically be achieved commensurate with the extent of anticipated project impacts.

Specifically, it is not apparent to BCDC at present how the project proponent can ensure consistency with the requirements of various Bay Plan Mitigation Policies, such as:

1. siting and designing compensatory mitigation projects as close to the impact site as practicable and within a Baywide ecological context (Policy 2);
2. justification of the amount and type of compensatory mitigation based on a clearly identified rationale, including analysis of the probability of success, expected time delay between the impact and functioning of the mitigation site, and type and quality of ecological functions of the proposed mitigation site as compared to the impacted site (Policy 5);
3. preference for resource restoration over creation where practicable, and inclusion of transition zones and buffers (Policy 6);

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<sup>2</sup> Impact BI-5 states: ‘Construction and operation of the proposed project (Reaches 1–15) could have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means. (Less than Significant with Mitigation)’



4. site selection considering factors that will increase likelihood of long-term ecological success such as existing hydrological conditions, soil type, adjacent land uses, and connections to other habitats (Policy 6); and
5. to the extent practicable, provision of mitigation prior to or concurrently with the parts of the project causing adverse impacts (Policy 7).

While the project proponent may commit to achieving all of the requirements of these policies, the project proponent has not consulted with BCDC or otherwise made available for public review sufficient information to adjudge whether it can feasibly achieve these requirements with respect to mitigation for the proposed project's anticipated fill impacts to 26 acres of Bay and three acres of wetlands." (*Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-8, BI-3]*)

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"Section 15126.4(a)(1)(B) of the CEQA Guidelines, codified at Title 14 of the California Code of Regulations, states in relevant part:

'The specific details of a mitigation measure, however, may be developed after project approval when it is impractical or infeasible to include those details during the project's environmental review provided that the agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will be considered, analyzed, and potentially incorporated in the mitigation measure. Compliance with a regulatory permit or other similar process may be identified as mitigation if compliance would result in implementation of measures that would be reasonably expected, based on substantial evidence in the record, to reduce the significant impact to the specified performance standards.'

For the reasons discussed above, the project proponent has not provided substantial evidence to demonstrate the feasibility of Mitigation Measure M-BI-5b (and Mitigation Measure M-BI-5a) to reduce anticipated project impacts to a degree of less than significance as compared to the extent of those impacts.<sup>3</sup>

Furthermore, the DEIR does not address the potential applicability of section 15126.4(a)(1)(D) of the CEQA Guidelines, which states in relevant part:

'If a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be discussed but in less detail than the significant effects of the project as proposed.'

While BCDC staff's position at this time is not that Mitigation Measure M-BI-5b (or Mitigation Measure M-BI-5a) will necessarily cause any significant effects, the lack of detail and specificity as to how impacts to 26 acres of open water in the Bay and three acres of wetlands can realistically be mitigated through Mitigation Measures M-BI-5a and M-BI-5b does not provide BCDC staff assurance that the mitigation measures will not cause one or more significant effects that should be addressed in the EIR.

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<sup>3</sup> Section 15364 of the CEQA Guidelines defines 'Feasible' as 'capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.'

Suggestions

Considering the comments above, we encourage the City and SFO to look at potential options nearby that may compensate for the project impacts and to then consider other options offsite or out-of-kind and not just the mitigation or minimization of construction related impacts. Additionally, one potential mitigation alternative that staff is aware of that the City and SFO could look into is whether the Port of San Francisco would be interested in having this project contribute funds for removal or remove a portion of Piers 30/32 to restore open water habitat in that area. This could be evaluated as one of the mitigation alternatives considered.” (Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-9, BI-3])

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**“Comment:** The DEIR discusses compensatory mitigation for the potential impacts to multiple types of habitat and species within Mitigation measure M-BI-5b: Compensation for Fill of Wetlands and Waters. The mitigation measure describes the mitigation as being shoreline improvements, habitat enhancement, removal of contaminated materials from San Francisco Bay, and restoration efforts. The mitigation measure also describes the restoration or enhancement would be subject to the restrictions of FAA Airport Circular 150/5200-33B, Hazardous Wildlife Attractants on or Near Airports.

The types of actions described in the mitigation measure would be consistent with CDFW recommendations for mitigation options. However, the measure is lacking necessary detail to determine whether the types of mitigation activities would be sufficient to fully offset potential impacts. Additionally, a 1:1 ratio mentioned in Mitigation Measure M-BI-5a: Avoidance of Impacts on Wetlands and Waters may not be sufficient depending on the type of mitigation that may be proposed to offset the Project’s impacts.

**Recommendation:** CDFW recommends a mitigation plan be drafted and added as an additional mitigation measure for the Project in the final EIR. The Plan should include the Project’s complete mitigation proposal, description of monitoring efforts, and a habitat assessment that includes a map identifying in water and nearshore Project impacts such as dredge, fill, and pile driving. CDFW understands that at this point in the Project planning the level of detail needed to determine exact mitigation amounts or options may be difficult. Drafting a mitigation plan and providing the plan to all the permitting agencies for review and approval prior to construction would provide a concise description of the complete mitigation proposal and how impacts would be monitored to determine whether Project impacts are offset by the overall mitigation package.

Additionally, a CDFW approval of the Project, specifically for take of state listed species, would require the impacts, and take to be fully mitigated. At the time of an application for an ITP, the mitigation package to offset potential impacts from pile driving, dewatering, dredging, and fill of 26 acres of open water habitat would need to be fully described and agreed upon. Through early consultation and the creation of the mitigation plan, the details of an acceptable mitigation package to fully mitigate the potential take of state listed species can be determined.

**Recommendation:** CDFW recommends that Mitigation Measure M-BI-5b include the option of purchasing habitat credits from an approved mitigation bank. To offset any potential impacts to Longfin smelt, CDFW would recommend that purchasing habitat credits be one part of a mitigation package that is presented.

**Recommendation:** CDFW recommends providing a description of FAA Airport Circular 150/5200-33B, Hazardous Wildlife Attractants on or Near Airports in the final EIR. Describing this code would be beneficial when discussing potential mitigation options as it will determine what impacts could be mitigated in-kind or where out-of-kind mitigation may be necessary.” (Becky Ota, *Habitat Conservation Program Manager, Marine Region, California Department of Fish and Wildlife, Letter, 10/21/2022 [A-CDFW-6, BI-3]*)

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“The Draft EIR Contains No Evidence that Mitigation Measure M-BI-5b is Feasible

Mitigation Measure M-BI-5b states that San Francisco International Airport (‘Airport’) shall provide compensatory mitigation for the placement of Bay fill and fill of seasonal wetlands ‘as further determined by regulatory agencies with authority over these features during the permitting process.’ Draft EIR at 4.D-55 to 4.D-56. This mitigation measure contains a brief paragraph generally describing various activities that ‘may’ be included as compensatory mitigation for the impacts of fill in the Bay and wetlands.

However, the Draft EIR fails to identify any potential sites, proposed restoration projects, or mitigation banks at which mitigation to compensate for the Project’s fill impacts could feasibly be implemented. Similarly, the Draft EIR fails to discuss the acreages of aquatic or terrestrial habitat types proposed as compensatory mitigation, specific performance standards that the mitigation will achieve, or the types of potential actions that can feasibly achieve any subsequently developed performance standards and that will be considered, analyzed, and potentially incorporated in the compensatory mitigation measures. (The mitigation ratio of 1:1 stated in Mitigation Measure M-BI-5a is not a performance standard, but rather refers to the acreage and/or resource values to be restored, created, or enhanced to compensate for unavoidable impacts.) For these reasons, the Draft EIR contains no evidence that Mitigation Measure M-BI-5b is a ‘feasible’ mitigation measure as required by CEQA. 14 C.C.R. § 15126.4(a)(1).

The Draft EIR’s failure to include a feasible compensatory mitigation measure for the approximately 26 acres of Bay fill is particularly noteworthy. There may be an available site (or sites) to implement a habitat enhancement or restoration plan to compensate for the Project’s impacts to approximately 3 acres of wetlands, but such activities would not necessarily constitute acceptable in-kind mitigation for the placement of approximately 26 acres of Bay fill. The Draft EIR refers to the possibility of fill removal through removal of chemically treated wood material or unengineered debris but fails to identify any potential location(s) or the available acreage of such fill removal. Thus, the Draft EIR contains no evidence that Mitigation Measure-BI-5b is a feasible mitigation measure to compensate for the impacts from filling 26 acres of the Bay.

The CEQA Guidelines provide that compliance with a regulatory permit may be identified as mitigation if compliance would result in implementation of measures that would reasonably be expected, based on substantial evidence in the record, to reduce the significant impacts to a specified performance standard. Id. § 15126.4(a)(1)(B). However, a conclusory assertion that compensatory mitigation for fill impacts will be determined later ‘by regulatory agencies with authority...during the permitting process’ is insufficient and ignores the practical reality that the permitting and resource agencies with jurisdiction will not develop a compensatory mitigation plan for the Airport. Rather, under both CEQA and in the permitting process, the Airport needs to develop a proposed compensatory mitigation plan for review and comment by those agencies.

The lack of relevant information in the Draft EIR suggests that the Airport has made little or no progress during the CEQA review process working with the permitting and resource agencies to develop a viable compensatory mitigation plan for the Project's fill impacts on Bay waters and wetlands. As a result, the Draft EIR fails to provide the responsible state agencies, who must rely on the EIR in their review and permitting processes, and the public with sufficient information to evaluate whether any compensatory mitigation will be feasible and sufficient or to assess whether such compensatory mitigation itself may result in potentially significant environmental effects. See Id. § 15126.4(a)(1)(D). In the absence of any information regarding available sites and acreages to provide compensatory mitigation through fill removal, habitat enhancement, and/or restoration, and considering the Draft EIR's failure to identify any specified performance standards to assure the long-term success of such mitigation, there is no evidence that Mitigation Measure M-BI-5b will reduce the Project's fill impacts on open waters of the Bay and wetlands to less than significant with mitigation." (*Marc Zeppetello, Letter, 10/17/2022 [I-Zeppetello-2, BI-2]*)

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### RESPONSE BI-3

The commenters state that it is not apparent how the commitments of Mitigation Measures M-BI-5a and M-BI-5b will realistically be achieved commensurate with the extent of anticipated project impacts or how SFO can ensure consistency with the requirements of various Bay Plan Mitigation Policies and recommends prioritizing compensatory mitigation options near the project site.

The commenters also recommend adding a mitigation measure to draft a mitigation plan for review and approval by permitting agencies prior to construction; amending Mitigation Measure M-BI-5b to include the option of purchasing habitat credits from an approved mitigation bank; and providing a description of FAA Airport Circular 150/5200-33B, Hazardous Wildlife Attractants on or Near Airports in the Final EIR.

As requested by comments A-BCDC-8 and A-BCDC-9, SFO has been working and continues to work towards identifying like-for-like mitigation opportunities consistent with the Bay Plan Mitigation Policies, including reaching out to the resource agencies; however, no applications for a mitigation package have yet been submitted. As noted by the CDFW commenter, CEQA Guidelines section 15126.4(a)(B) specifically states that "compliance with a regulatory permit or other similar process may be identified as mitigation if compliance would result in implementation of measures that would be reasonably expected, based on substantial evidence in the record, to reduce the significant impact to the specified performance standards." Mitigation Measure M-BI-5b specifically notes that, "... the Airport shall provide compensatory mitigation for placement of fill ... as further determined by the regulatory agencies with authority over these features during the permitting process." Because Mitigation Measure M-BI-5b identifies measures that would be required to mitigate for placement of fill in the bay as required by the permitting process for implementation of the proposed project, Mitigation Measure M-BI-5b sufficiently mitigates the impact.

In response to comment A-CDFW-6, Mitigation Measure M-BI-5b, Compensation for Fill of Wetlands and Waters, Draft EIR pp. 4.D-55 to 4.D-56, is revised as follows:

**Mitigation Measure M-BI-5b: Compensation for Fill of Wetlands and Waters.** The Airport shall provide compensatory mitigation for placement of fill associated with installation of new structures in San Francisco Bay at all applicable reaches and fill of the seasonal wetlands in Reach 2B, as further determined by the regulatory agencies with authority over these features during the permitting process.

Compensation may include compensatory mitigation, shoreline improvements or intertidal/subtidal habitat enhancements through removal of chemically treated wood material (e.g., pilings, decking, etc.) by pulling, cutting, or breaking off piles at least 1 foot below mudline or removal of other unengineered debris (e.g., concrete-filled drums or large pieces of concrete), as well as creation, restoration, or enhancement of wetlands and waters.

As a component of the resource agency permitting process, upon finalizing their wetland and aquatic habitat mitigation strategy, SFO shall prepare a Summary Mitigation Plan that states the project's complete mitigation proposal, describes the annual monitoring approach for on-site habitat elements and includes a map identifying in-water and nearshore project elements. If required by individual permits, the plan will be submitted for review to CDFW, NMFS, USFWS, BCDC and/or the Corps prior to construction. The plan will include comparable monitoring requirements for off-site mitigation sites proposed to be managed by SFO; however, such requirements are not needed for sites that are operated or managed by third parties (e.g., approved mitigation bank lands). Any compensatory mitigation, shoreline improvements, or habitat enhancements must be subject to the restrictions in FAA Airport Circular 150/5200-33B, Hazardous Wildlife Attractants on or Near Airports.

In response to comment A-CDFW-6, SFO has been working and continues to work towards identifying like-for-like mitigation opportunities, including reaching out to agencies such as the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the California Department of Fish and Wildlife, the San Francisco Bay Regional Water Quality Control Board, and the San Francisco Bay Conservation and Development Commission; however, no applications for a mitigation package have yet been submitted. SFO will consider purchasing habitat credits as one part of a mitigation package that is ultimately presented.

In response to comment A-CDFW-6, FAA Airport Circular 150/5200-33B, Hazardous Wildlife Attractants On or Near Airports, provides guidance for land uses or projects that have the potential to attract hazardous wildlife on or near public-use airports. The proposed project consists of construction of a new shoreline protection program to protect the Airport from a 100-year flood and sea-level rise and would not include any habitat or other features that would attract hazardous wildlife to the area; therefore, this circular (superseded by FAA Airport Circular 150/5200-33C<sup>27</sup>) is not applicable to the proposed project.

#### 4.G.4 Comment BI-4: Noise Exposure on Fish

This response addresses the following comment, which is quoted below:

A-CDFW-7

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**“Comment:** Table 4.D-2 incorrectly states the accumulated sound exposure level (SEL) for fish less than 2 grams as 186 decibels. The SEL should be changed to 183 decibels to be consistent with the Fisheries Hydroacoustic Working Group, Agreement in Principle for Interim Criteria for Injury to Fish from Pile Driving Activities referenced within the table.

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<sup>27</sup> U.S. Department of Transportation Federal Aviation Administration, Advisory Circular 150/5200-33C, February 21, 2020, [https://www.faa.gov/documentLibrary/media/Advisory\\_Circular/150-5200-33C.pdf](https://www.faa.gov/documentLibrary/media/Advisory_Circular/150-5200-33C.pdf), accessed December 1, 2022.

**Location in Document:** Page 4.D-47, Table 4.D-2, row 2, column 2.” (Becky Ota, Habitat Conservation Program Manager, Marine Region, California Department of Fish and Wildlife, Letter, 10/21/2022 [A-CDFW-7, BI-4])

## RESPONSE BI-4

The commenter identifies an error in Draft EIR Table 4.D-2, p.4.D-47, regarding accumulated sound exposure level (SEL) for fish less than 2 grams. These comments do not change the analysis or conclusions in the Draft EIR.

In response to this comment, Table 4.D-2, p. 4.D-47, is amended as follows:

**Table 4.D-2 Potential Effects to Fish at Varying Noise Levels**

Taxa	Sound Level (dB)	Effect	Reference
<b>FISH</b>			
All fish > 2 grams in size	<del>206 peak</del> 187 (SEL)	Acute Barotraumas	Fisheries Hydroacoustic Working Group, 2008
All fish < 2grams	<del>186-183</del> (SEL)	Acute Barotraumas	Fisheries Hydroacoustic Working Group, 2008
<u>All fish</u>	<u>206 peak</u>	<u>Acute Barotraumas</u>	<u>Fisheries Hydroacoustic Working Group, 2008</u>
Salmon, steelhead	150 (RMS)	Avoidance behavior	Halvorsen et al. 2012

NOTES: SEL = sound exposure level; RMS = root-mean-square pressure level

### 4.G.5 Comment BI-5: Reporting and Filing Fees

This response addresses the following comments, which are quoted below:

A-CDFW-8

A-CDFW-9

“CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a data base which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNDDB field survey form can be found at the following link: <https://wildlife.ca.gov/Data/CNDDB/SubmittingData#44524420-pdf-field-survey-form>. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: <https://wildlife.ca.gov/Data/CNDDB/Plants-and-Animals>.” (Becky Ota, Habitat Conservation Program Manager, Marine Region, California Department of Fish and Wildlife, Letter, 10/21/2022 [A-CDFW-8, BI-5])

“The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by the CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)” (Becky Ota, *Habitat Conservation Program Manager, Marine Region, California Department of Fish and Wildlife, Letter, 10/21/2022 [A-CDFW-9, BI-5]*)

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## RESPONSE BI-5

The commenter requests that the project sponsor report any special-status species and natural communities detected during proposed project surveys, as required by CEQA. The commenter also states that if the proposed project has an impact on fish and/or wildlife, an assessment of filing fees is necessary.

In response to this comment, Draft EIR Mitigation Measure M-BI-1a, Worker Environmental Awareness Program Training, pp. 4.D-33 to 4.D-34, is revised to include the following new last bullet:

- Special-status species and sensitive natural communities detected during surveys or monitoring for the project shall be reported to the California Department of Fish and Wildlife California Natural Diversity Database using the field survey forms found at <https://wildlife.ca.gov/Data/CNDDB/SubmittingData#4452442-pdf-field-survey-form>.

The above changes do not result in significant new information with respect to the proposed project, including the level of significance of impacts before or after mitigation or any new significant impacts.

Regarding comments pertaining to CDFW filing fees, SFO and the City understand that filing fees are due to CDFW per the filing fee schedule on CDFW’s website.<sup>28</sup> The comment is noted but does not pertain to the adequacy, accuracy, or completeness of the Draft EIR’s analysis of the proposed project’s physical environmental impacts and thus does not require further response.

### 4.G.6 Comment BI-6: Compensatory Mitigation for Piers 30–32

This response addresses the following comment, which is quoted below:

I-Zeppetello-3

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“Consider Fill Removal of All or a Portion of Piers 30–32 in San Francisco to Compensate for the Project’s Impacts of Filling Approximately 26 Acres of the Bay

Given that the Airport has not identified an available site or sites to implement mitigation to compensate for the Project’s impacts from approximately 26 acres of Bay fill, this is to suggest that consideration be given to mitigating those fill impacts by the removal of all or a portion of Piers 30–32 on the San Francisco waterfront. Piers 30–32 is a deteriorated, dilapidated, seismically unsafe 13-acre structure with load restrictions that limit its use to parking spaces. Various proposals to redevelop Piers 30–32 over the past 20 years (or longer)

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<sup>28</sup> California Department of Fish and Wildlife, CEQA Environmental Document Filing Fees, <https://wildlife.ca.gov/Conservation/Environmental-Review/CEQA/Fees>.

have been unsuccessful in part due to the substantial costs that must be incurred either to seismically upgrade and renovate the existing structure or to completely remove it and construct a replacement pier. See Port of San Francisco, Presentation to San Francisco Bay Conservation and Development Commission (June 17, 2021), at slides 3–5 (available on BCDC’s website).

Providing compensatory mitigation for the Project’s Bay fill impacts through removal of all or a portion of Piers 30–32 would benefit both the Airport and the Port. Fill removal at Piers 30–32 would provide in-kind mitigation for the Project’s impacts from filling open waters of the Bay by creating an open water area at Piers 30–32. Moreover, the compensatory mitigation would be provided through coordination between two agencies within the same municipal jurisdiction (i.e., the City and County of San Francisco) and in relative proximity to the Project’s Bay fill impacts (in comparison to providing mitigation in other jurisdictions at more distant locations such as in the South Bay or East Bay). Finally, if Airport mitigation dollars that will otherwise be spent to pay for mitigation elsewhere in and around the Bay are used instead to fund the removal of some or all of Piers 30–32, the Port would have the opportunity to consider and pursue a fresh vision for the urban shoreline at this location. Without the need for private development to fund the removal of Piers 30–32, it might be possible to improve this stretch of the waterfront to include construction of a new replacement pier with a deep water berth to meet the Port’s maritime needs together with bay-oriented recreation and visitor-serving commercial uses consistent with the public trust to generate lease revenues for the Port.

If it is determined that it is not feasible to compensate for the Project’s Bay fill impacts by removal of all or a portion of Piers 30–32, the Final EIR should include substantial evidence to support that determination.”  
*(Marc Zeppetello, Letter, 10/17/2022 [I-Zeppetello-3, BI-6])*

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## **RESPONSE BI-6**

The commenter recommends that the project sponsor consider fill removal of all or a portion of the Port of San Francisco’s Piers 30–32 to compensate for the proposed project’s impacts for fill in the bay.

SFO is in the process of identifying compensatory mitigation options to offset fill of wetlands and waters and will consider all feasible options. The recommendation provided in comment I-Zeppetello-3 has been received but it is unlikely that partial or complete fill removal of Piers 30–32 will be included in the compensatory mitigation package for the proposed project for several reasons. Most importantly, Airport funding of removal of all or a portion of Piers 30–32 at the Port of San Francisco would likely be considered revenue diversion by the FAA. The Airport’s grant assurances do not allow the Airport to fund projects that are not related to aviation activities. Additionally, pile removal is a costly measure that would not come close to providing the 26 acres needed to compensate for loss of open water due to the proposed project. And finally, there are also species habitat removal considerations for compensatory mitigation that would not necessarily make this type of fill removal like-for-like compensation for open water loss at the Airport. This comment does not raise specific issues concerning the adequacy, accuracy, or completeness of the Draft EIR’s analysis of the proposed project’s physical environmental impacts and thus does not require further response.



## 4.H Geology and Soils [GE]

The comments and corresponding responses in this section cover the subjects included in Draft EIR Section 4.E, Geology and Soils. The comment topics relate to:

- GE-1: Fill Characteristics and Construction

### 4.H.1 Comment GE-1: Fill Characteristics and Construction

This response addresses the following comments, which are quoted below:

A-BCDC-10

A-BCDC-13

A-BCDC-18

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“The Commission appointed the Engineering Criteria Review Board to review, on the basis of available knowledge, all new fills that might be permitted in the Bay Plan, so that no fills would be included upon which construction might be unsafe. Based upon the soil conditions and the complexity of the different designs at each of the different reaches, the Commission staff believes that this project needs to be reviewed by the ECRB. Staff generally recommends that the ECRB review occurs before any applications are submitted so that changes can be incorporated into the early phases of the project design and planning. The project team should contact BCDC staff to discuss setting up an ECRB review.

The expansion of the airport includes offshore flood protection that potentially creates greater hazards to life and property, during normal soil consolidation and earthquakes. Therefore, adequate design measures shall be taken to reduce these potential hazards to acceptable levels. Even if the Bay Plan indicates that a fill may be permissible, no fill or building should be constructed if hazards cannot be overcome adequately for the intended use in accordance with the criteria prescribed by the Engineering Criteria Review Board.

Further, the flood protection structures shall provide adequate measures to prevent damage from sea level rise and storm activity that may occur on fill or near the shoreline over the expected life of a project. Hence, the Commission may approve fill that is needed to provide flood protection for existing projects and uses that meet flood resilience criteria such that the project should either:

- be set back from the edge of the shore so that the project will not be subject to dynamic wave energy,
- be built so the bottom floor level of structures will be above a 100-year flood elevation that takes future sea level rise into account for the expected life of the project,
- be specifically designed to tolerate periodic flooding, or
- employ other effective means of addressing the impacts of future sea level rise and storm activity.

Rights-of-way for levees or other structures protecting inland areas from tidal flooding should be sufficiently wide on the upland side to allow for future widening or raising to support additional height so that no fill is placed in the Bay. This principle also applies for the raising or widening of other shoreline protection

#### 4. Draft EIR Revisions

##### 4.H. Geology and Soils [GE]

structures as well.” (Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-10, GE-1])

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“The Hydrology and Water Quality Section on HY-1, includes a discussion related to the construction of the shoreline protection in Reaches 7 and 8 potentially requiring the placement of a sand dike prior to the installation of the sheet pile walls to help surcharge some of the young Bay mud and prior to the placement of the fill material that will replace the dredged sediment. However, the methods and sequencing of this construction is not entirely clear. Please clarify this discussion on page 4.F-31 with more detail. Please indicate whether the sand would be removed at some point, or if it would remain in place for the life of the project.” (Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-13, GE-1])

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“The DEIR indicates that a number of the project alternatives would include a dredging component to the project. It appears that most of the proposed dredging work would occur in Reaches 7 and 8. The DEIR estimates that approximately 147,200 cubic yards of sediment from Reach 7 and 33,800 cubic yards of sediment from Reach 8 would be dredged to a depth of 15 feet below the sediment surface. The DEIR indicates the sediment would be removed from the Bay and the area would be backfilled, but the backfill material for the perimeter dike is not clearly indicated in the DEIR and should be included. It is not clear in the DEIR what the intended disposal or beneficial reuse location is for the sediment dredged from Reaches 7 and 8.

The DEIR contained general language on the testing that is required within San Francisco Bay for unconfined aquatic placement and beneficial reuse and the process for review of the sampling and testing by the Dredged Material Management Office (DMMO) but did not provide any updated information on where the project is at with testing. It is our understanding that although there may have been some prior testing in the area, new testing is required and SFO has been coordinating with the DMMO on this. We understand that the proposed project went before the DMMO in May 2022 and the sampling and analysis plan was approved with some modifications to the plan. However, it is not clear whether the testing has already occurred or not and if SFO has the results. This information would be helpful to add to the DEIR. Sediment testing results will be required during for permitting and prior to the dredging or placement of any dredged sediment as part of the proposed project.

We noted that the dredging will be new work dredging and that all sediment will need to be placed upland and/or at a beneficial reuse site or taken out to the San Francisco Deep Ocean Disposal Site in order to comply with the LTMS program. The Final EIR should also discuss potential placement locations for the dredged sediment, if known.” (Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-18, GE-1])

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## RESPONSE GE-1

Comment A-BCDC-10 states that the proposed project needs to be reviewed by BCDC’s Engineering Criteria Review Board (ECRB), and BCDC staff generally recommends that the ECRB review occurs before any applications are submitted so that changes can be incorporated into the early phases of the project design

and planning. The comment states that the project team should contact BCDC staff to discuss setting up an ECRB review. The comment and requested consultation with BCDC staff is acknowledged, but does not pertain to the adequacy, accuracy, or completeness of the Draft EIR's analysis of the proposed project's physical environmental impacts and thus does not require further response.

Comment A-BCDC-10 also states that the proposed project includes offshore flood protection that potentially creates greater hazards to life and property during normal soil consolidation and earthquakes, and therefore adequate design measures should be taken to reduce these potential hazards to acceptable levels. The comment states that, even if BCDC's San Francisco Bay Plan indicates that fill may be permissible, no fill or building should be constructed if hazards cannot be overcome adequately for the intended use in accordance with the criteria prescribed by the ECRB. Impact GE-1, Draft EIR pp. 4.E-15 to 4.E-17, evaluates potential seismic hazards associated with the proposed project and discusses the construction methods proposed to reduce the risk of damage from seismic groundshaking and lateral ground motion. Impact GE-1 also discusses the additional geotechnical investigations that would be prepared and the Airport's review process for confirming compliance with the California Building Code. The analysis under Impact GE-1 determines that the proposed project would improve the shoreline protection system to ensure that the structures would withstand strong seismic groundshaking and seismically induced soil failure; the proposed project would not exacerbate or increase the severity of existing or future seismic hazards or unstable soils that could result in a substantial risk of loss, injury, or death; and therefore, the impact would be less than significant.

Comment A-BCDC-10 states that flood protection structures should provide adequate measures to prevent damage from sea-level rise and storm activity that may occur on fill or near the shoreline over the expected life of a project. Hence, BCDC may approve fill that is needed to provide flood protection for existing projects and uses that meet BCDC flood resilience criteria, which require that a project either be set back from the edge of the shore so that it would not be subject to dynamic wave energy; be built so the bottom floor level of structures would be above a 100-year flood elevation that takes future sea-level rise into account for the expected life of the project; be specifically designed to tolerate periodic flooding; or employ other effective means of addressing the impacts of future sea-level rise and storm activity. The comment further states that rights-of-way for levees or other structures protecting inland areas from tidal flooding should be sufficiently wide on the upland side to allow for future widening or raising to support additional height so that no fill is placed in the bay, and this principle also applies for the raising or widening of other shoreline protection structures. As discussed under Impact HY-5, Draft EIR p. 4.F-49, the proposed project is designed to protect the Airport from future sea-level rise consistent with OPC and City and County of San Francisco guidance as well as meeting current FEMA accreditation requirements for flood protection. The proposed project's consistency with BCDC flood resilience criteria will be considered as part of the permit application review and approval process required for the proposed project.

Comment A-BCDC-13 requests clarification regarding the methods and sequencing of construction along Reaches 7 and 8, specifically as it pertains to the potential placement of a sand dike prior to the installation of the sheet pile walls and whether the sand would be removed at some point or if it would remain in place for the life of the project. As discussed under Impact HY-1, Draft EIR p. 4.F-31, the construction sequencing along Reaches 7 and 8 would include installation of a sand dike and a steel sheet pile wall or a sheet pile wall only to isolate the work area in these reaches. If a sand dike is used, it would remain in the bay after placement and would be covered with a layer of rock armor as shown on Draft EIR Figure 2-23, p. 2-38, and

#### 4. Draft EIR Revisions

##### 4.1. Hydrology and Water Quality [HY]

Figure 2-24, p. 2-40, and as discussed under Impact HY-1. In response to this comment, the last paragraph on Draft EIR p. 4.F-31 has been revised as follows:

... Following installation of the sand dike, steel sheet piles would be installed and additional fill would be placed in the bay between the sand dike and the existing shoreline. Under this approach, the sand dike would remain in the bay for the life of the proposed project and would be covered with a layer of rock armor. ...

Comment A-BCDC-18 requests additional clarification regarding dredging and material reuse along Reaches 7 and 8, including what type of material would be placed in these areas and updated information regarding the status of testing the material to be dredged. Comment A-BCDC-18 also recommends the Final EIR discuss potential placement locations for the dredged sediment. The specific type of engineered fill to be used inland of the sheet piles is not yet known. As discussed under Impact HY-1, Draft EIR p. 4.F-31, dewatering of the fill using wick drains would be conducted consistent with the requirements of the Airport's Industrial SWPPP, the Construction General Permit, the Airport's standard construction measures, and, as applicable, Mitigation Measure M-HY-1b, Implement Dewatering BMPs for In-Water Work. The intended disposal location of the sediment dredged by the proposed project is not yet known, but as stated under Impact HY-1, Draft EIR p. 4.F-32, sediment would be placed at a permitted disposal site, which could include a beneficial reuse site or the San Francisco Deep Ocean Disposal Site as discussed in the comment. Sediment testing is underway but not yet complete. As discussed under Impact HY-1, Draft EIR p. 4.F-33, sediment testing was completed in 2000; based on that data collection and analysis, the Draft EIR found that dredging the sediment likely would not release contaminants into the water column in concentrations that exceed water quality objectives, and that dredged spoils would be suitable for unconfined aquatic disposal in the bay at permitted disposal sites. Draft EIR Impact HY-1 (p. 4.F-34) also acknowledges that additional sediment sampling would be required. Additional sediment testing noted by the commenter is underway but not yet complete. These comments do not raise specific issues concerning the adequacy, accuracy, or completeness of the Draft EIR's analysis of the proposed project's physical environmental impacts and thus do not require further response.

#### 4.1 Hydrology and Water Quality [HY]

The comments and corresponding responses in this section cover the subjects included in Draft EIR Section 4.F, Hydrology and Water Quality. The comment topics relate to:

- HY-1: Hydrology Impacts

### 4.I.1 Comment HY-1: Hydrology Impacts

This response addresses the following comments, which are quoted below:

A-BCDC-12

A-Caltrans-2

A-Millbrae-5

A-OneShoreline-2

I-Schneider2-5

I-Schneider2-9

I-Zeppetello-1

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“Additionally, the DEIR should include an analysis of the potential for wave reflection impacts on nearby areas, potential far field impacts, and how such impacts may be mitigated. BCDC understands that Reach 16 would be constructed if the project does not end up tying into other regional shoreline protection projects that are early in their planning phases, such as the shoreline protection project being developed by the San Mateo County Flood Control and Sea Level Rise Resiliency District. We encourage SFO to continue working with the adjacent neighbors to have the projects complement and tie into each other to provide a more collaborative regional solution to sea level rise in this part of the Bay.” (*Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-12, HY-1]*)

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“Sea level rise and associated flooding risks along US-101 in San Mateo County and along State highways, freeways and facilities all around the bay, especially in low lying areas, are of particular concerns to Caltrans. Please include the discussion of the flooding impacts. The impact of the proposed flood protection measures will need to be modeled with the extent of flooding represented on FEMA and San Mateo County flood maps. As stated in previous comments, the effect of flood water sources from upstream (landward) creeks and streams needs to be analyzed as well as flooding from sea level rise to adequately understand flood patterns and design flood protection facilities and upgrade existing facilities.

Also, any existing Caltrans and local drainage facilities will need to be surveyed, identified, and shown on the plans. Proposed drainage/flooding design changes will need to address any drainage-related conflicts. Caltrans looks forward to reviewing proposed drainage solutions and helping to resolve potential drainage concerns and conflicts.” (*Mark Leong, District Branch Chief, Local Development Review, California Department of Transportation, District 4, Letter, 10/17/2022 [A-Caltrans-2, HY-1]*)

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“4. **Reach 12 to 14** – Each Reach describes the addition of metal walls and the filling of mudflats, it appears so SFO can build more and wider maintenance roads. The discuss the removal of existing rocks which I assume will be hauled over to the Aviator Lot, increasing noise, dirt and damage to roads and loss of sleep to residents. But worse it is filling the Bay. The narrowing of the inlet created by Runways 28 (Reach 13) and along Runway 1 (Reach 14) and Millbrae will get narrower and shallower. This is a FEMA tsunami zone and

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##### 4.1. Hydrology and Water Quality [HY]

this action, should an earthquake trigger a tsunami will increase the wave height and strength directly into Millbrae. The fact that Millbrae and Burlingame shorelines have been added to the tsunami risk zone is ignored. Therefore the DEIR is inadequate.” (*City of Millbrae, Letter, 10/17/2022 [A-Millbrae-5, HY-1]*)

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“More specifically, on the northwest side of SFO, the Draft EIR needs to fully consider any impacts related to water levels, habitat, and recreation along the Bay shoreline of South San Francisco, and any such impacts to all creeks and channels flowing to the Bay within the cities of South San Francisco and San Bruno. As discussed in OneShoreline’s comments on the SPP Notice of Preparation, we work closely with the cities of South San Francisco and San Bruno through the long-standing Colma Creek Flood Zone and San Bruno Creek Flood Zone that are OneShoreline-owned assets and responsibilities. Consequently, the Draft EIR’s Reach 1 – San Bruno Channel should be designed and evaluated in the context of the needs and activities of these nearby Flood Zones, particularly as it relates to any wall along the north side of North Access Road and deployable flood gate adjacent to OneShoreline’s tide gate at the mouth of San Bruno Creek.

Southeast of SFO, OneShoreline leads the Millbrae and Burlingame Shoreline Area Protection and Enhancement Project, which aims to protect against the FEMA coastal Base Flood Elevation plus 6 feet. In our work to develop alternatives for this Project, we appreciate the collaboration with SFO on information sharing and property access for data collection. OneShoreline requests continued collaboration to ensure that the design elevations for the SPP’s proposed improvements at Reach 14 – Mudflat proximate to Millbrae and Reach 15 – Millbrae Channel are aligned with our efforts. In addition, as our Project objectives include enhancing habitat and recreational assets, SFO’s EIR must fully consider any impacts related to water levels, habitat, and recreation along the Bay shoreline of Millbrae, Burlingame, and San Mateo, and any such impacts to all creeks and channels within Millbrae and Burlingame.

Thank you for the opportunity to comment on the SPP Draft EIR and for our partnership to build regional resilience. Please let me know if you have any questions about these comments.” (*Len Materman, Chief Executive Officer, OneShoreline [San Mateo County Flood and Sea Level Rise Resiliency District], Letter, 10/17/2022 [A-OneShoreline-2, HY-1]*)

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“**Reach 12 to 14** – Each Reach describes the addition of metal walls and the filling of mudflats, it appears so SFO can build more and wider maintenance roads. The DEIR discusses the removal of existing rocks which I assume will be hauled over to the Aviator Lot, increasing noise, dirt and damage to roads and loss of sleep to residents. But worse it is filling the Bay. The narrowing of the inlet created by Runways 28 (Reach 13) and along Runway 1 (Reach 14) and Millbrae will get narrower and shallower. This is a FEMA tsunami zone and this action, should an earthquake trigger, a tsunami will increase the wave height and wave strength directly into Millbrae. The fact that Millbrae and Burlingame shorelines have been added to the tsunami risk zone is ignored. Therefore, the DEIR is inadequate.” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-5, HY-1]*)

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“**Bay Fill and Marshlands** – The DEIR hides the sheer amount of bay fill you plan to do by listing the acres to be filled reach by reach. This proves the inadequacy of this DEIR; you are not showing the cumulative impact of that much bay fill. If SFO proceeds with filling the bay and adding more inert surfaces this must be studied and discussed in the DEIR.” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-9, HY-1]*)

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“The Draft EIR states that the San Francisco International Airport Shoreline Protection Program (‘Project’) ‘would require approximately 26 acres of open water fill in San Francisco Bay and would impact approximately 3 acres of wetlands areas.’ Draft EIR at 1-1. These comments concern the Draft EIR’s analysis of the Project’s impacts from filling open Bay waters and the proposed mitigation measure to compensate for unavoidable Bay fill impacts.

Filling Approximately 26 Acres of Open Bay Waters Is a Potentially Significant Impact Distinct from the Impacts of Such Fill on Biological Resources

The Draft EIR discusses the potentially substantial impact of the Project on state or federally protected wetlands in Section 4.D., Biological Resources. Draft EIR at 4.D-53 to 4.D-56 (Impact BI-5). Although the Draft EIR refers to impacts to ‘jurisdictional waters,’ the focus of the discussion in this section is on impacts to wetlands biological resources. Notwithstanding the emphasis on the Project’s impacts on biological resources, the impacts of filling approximately 26 acres of open waters of San Francisco Bay is a potentially significant impact distinct from the impacts of such fill on biological resources.

Evaluating the impacts of filling approximately 26 acres of the Bay more broadly than solely with respect to impacts on biological resources is necessary and appropriate given the California Legislature’s determination that the Bay is ‘the most valuable single natural resource of [the] entire region.’ Cal. Gov’t Code § 66600. A more thorough assessment of the Project’s Bay fill impacts is also warranted by other provisions of the McAteer-Petris Act and policies of the San Francisco Bay Plan. See Cal. Gov’t Code §§ 66604 (findings and declarations as to maximum protection of present shoreline and body of the bay), 66605(b) (bay fill for any purpose should be authorized only when no alternative upland location is available); 66605(c) (water area to be filled should be the minimum necessary to achieve the purpose of the fill), 66605(d) (any fill should minimize harmful effects, such as reduction or impairment of the volume of surface area or circulation of water); San Francisco Bay Plan, Water Surface Area and Volume Policy 1 (bay surface area and total volume of water should be kept as large as possible) and Policy 2 (proposed fills should be evaluated to determine their effects upon water circulation and modified as necessary to improve circulation or minimize harmful effects).” (*Marc Zeppetello, Letter, 10/17/2022 [I-Zeppetello-1, HY-1]*)

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## RESPONSE HY-1

Comments BCDC-12, Schneider2-9, and Zeppetello-1 relate to bay circulation and runoff impacts associated with bay fill. Comment BCDC-12 recommends that the EIR address wave reflection impacts on nearby areas, far field impacts, and associated mitigation. Zeppetello-1 states that harmful effects caused by filling the bay could include reduction or impairment of the volume of surface area or circulation of water, and that fill should be evaluated to determine their effects upon water circulation and modified as necessary to improve circulation or minimize harmful effects. Comment Schneider2-9 recommends the EIR evaluate impacts related to more inert surfaces in San Francisco Bay and the cumulative impact of fill.

Section 4.F, Hydrology and Water Quality, of the Draft EIR evaluated effects related to hydrology and water quality that would result from the approximately 26 acres of bay fill that would be required for the proposed project, including effects on bay circulation and the effects of new impervious surfaces. Impact HY-2, Draft EIR pp. 4.F-43 to 4.F-47, discusses the results of the coupled hydrodynamic and wave modeling conducted

#### **4. Draft EIR Revisions**

##### **4.1. Hydrology and Water Quality [HY]**

for the proposed project. The hydrodynamic and wave modeling estimates the changes in the circulation of water caused by the proposed project. As discussed under Extreme Wind and Wave Conditions, p. 4.F-46, the modeling did not identify substantial project-related changes to wave conditions extending beyond the Airport, and the impact analysis therefore concludes that the proposed project would not have significant far field impacts related to waves, including impacts related to or caused by wave reflection. As discussed under Coupled Hydrodynamic and Wave Modeling, pp. 4.F-45 to 4.F-46, the coupled hydrodynamic and wave model results indicate that proposed project effects due to changes in tidal, storm surge, and wind-induced waves would be small and localized, and the impact discussion therefore concludes that impacts related to circulation of water would be less than significant. As discussed in the Draft EIR under Impacts HY-3 and HY-4, potential environmental impacts associated with the total proposed new impervious surfaces would be less than significant with implementation of post-construction best management practices required pursuant to the Construction SWPPP Guidelines.

Comments BCDC-12, OneShoreline-2, and Caltrans-2 relate to flood impacts and coordination of the proposed project with other regional shoreline flood protection projects. Comment BCDC-12 recommends continued coordination with regional neighbors on shoreline protection projects that complement each other. OneShoreline-2 recommends that the EIR consider impacts related to water levels in all creeks and channels in South San Francisco, San Bruno, Millbrae, and Burlingame. OneShoreline-2 also requests continued collaboration to ensure that design elevations of Reaches 14 and 15 are aligned with OneShoreline efforts in the area. Caltrans-2 recommends that the EIR include discussion of flooding impacts by modeling flood protection measures with the extent of flooding represented on FEMA and San Mateo County flood maps, including with Caltrans and local drainage facilities, and that the effect of flood water sources from upstream should be analyzed as well as flooding from sea-level rise.

SFO anticipates continued collaboration with OneShoreline on regional shoreline protection efforts. While a specific project to address flooding with sea-level rise on Colma and San Bruno creeks has not been selected, SFO understands that potential components to address the current and future flooding issues observed in the San Bruno and Colma creek watersheds include a pump station that would carry flows around the existing tide gate at the mouth of San Bruno Creek, the rehabilitation of two existing pump stations that facilitate stormwater drainage from San Bruno to San Francisco Bay, and the design and construction of a stormwater detention basin along 7th Avenue in San Bruno. The proposed project's components along San Bruno Creek would not obstruct implementation of other projects in these locations, and as discussed in Draft EIR Impact HY-3 (pp. 4.F-47 to 4.F-48), the floodwall along San Bruno Creek would not substantially alter drainage or conveyance capacity in the creek.

SFO understands that initial data collection efforts began in 2022 for the Millbrae and Burlingame Shoreline Area Protection and Enhancement Project, and that it would be designed to protect the shoreline area of Millbrae and Burlingame from a bay water elevation equal to the FEMA 100-year coastal base flood elevation plus 6 feet for sea-level rise adaptation. The proposed project intends "to accommodate up to 66 inches [5.5 feet] of sea-level rise during a 100-year flood" (Draft EIR p. 2-6), very similar to OneShoreline's sea-level design target. While not yet designed, potential shoreline improvements are anticipated along Millbrae Channel among other areas. SFO anticipates continued collaboration with OneShoreline as a design is developed for the Millbrae and Burlingame Shoreline Area Protection and Enhancement Project.

Comments Millbrae-5 and Schneider2-5 state that the proposed shoreline protection system for Reaches 13 and 14 would narrow the inlet between SFO runways and Millbrae, which would increase tsunami wave



height and strength directly into Millbrae. The comments state that the Draft EIR ignores this tsunami risk impact and the addition of the Millbrae and Burlingame shorelines to the tsunami risk zone, and therefore the Draft EIR is inadequate. The comments provide no factual support for these claims. As discussed in Section 4.F, Hydrology and Water Quality, of the Draft EIR, the hydrodynamic and wave modeling conducted to analyze the proposed project's impacts associated with altered coastal hydraulics (detailed in Draft EIR Appendix G) found no indication of tidal, storm surge, or wave amplification that would result with implementation of the proposed project.

## 4.J Alternatives [AL]

The comments and corresponding responses in this section cover the subjects included in Draft EIR Chapter 6, Alternatives. The comment topics relate to:

- AL-1: Alternatives Analysis

### 4.J.1 Comment AL-1: Alternatives Analysis

This response addresses the following comments, which are quoted below:

A-BCDC-3  
A-BCDC-4  
A-BCDC-11  
A-BCDC-19  
A-Millbrae-7  
I-Schneider2-7

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“Section 66605 of the MPA sets forth the criteria necessary to authorize placing fill in the Bay and certain waterways. It states, among other things, that further filling of the Bay should only be authorized if it is the minimum necessary to achieve the purpose of the fill, if the public benefits of the fill clearly exceed the public detriments of the fill from the loss of water area, if harmful effects associated with its placement are minimized, and if the fill is placed according to sound safety standards for geologic or soil conditions and against flood or storm waters. According to the MPA, fill should be limited to water-oriented or minor fill for improving shoreline appearance or public access and should be authorized only when no alternative upland location is available for such purpose. The DEIR anticipates that the proposed project will include installation of an approximately 55,500-foot-long (approximately 10.5 miles) new shoreline protection system, which would require approximately 26 acres of solid fill (sheetpile walls, soil, riprap, etc.) in the open Bay for various reaches and result in approximately three acres of fill and impacts to wetlands.

The DEIR included six alternatives that were evaluated. However, it does not appear that the DEIR included an analysis of alternative upland locates for the fill proposed out in the Bay and there was not an inclusion of an alternative assessing the feasibility of nature-based shoreline protection, please see the Shoreline Protection section below for more information on this.

Additionally, there are a number of issues related to the proposed Bay fill that should be further explained in the Final EIR, including the following:

1. It does appear that some of the alternatives, such as Alternatives C, would result in less fill in the Bay and still achieve many of the project goals, but it is not exactly clear from the DEIR why the new service roadway needs to be moved out into the Bay. Please also further explain the need for the 12-foot-shoulder and evaluate whether a smaller shoulder could achieve the same need. The DEIR mentions that the current roadway doesn't meet current FAA requirements but does not clearly provide the reason why.
2. Please provide further justification for the need to move the new service roadway to the proposed location and evaluate whether the roadway could be located elsewhere or be smaller in size to reduce the amount of Bay fill, especially in Reaches 7 and 8.
3. Additionally, please provide more detail and justification on the specific need for fill to maintain critical airspace surfaces and how the proposed shoreline protection heights make any Bay fill necessary, especially in Reaches 7 and 8 (see page 2-35).
4. It is not clear why the existing vehicle service road does not meet the FAA taxiway and taxilane object-free area standards, and how moving the service road out onto fill in the Bay would solve this issue. Please further explain this in the DEIR.
5. It is not clear why the shoreline protection system in all reaches is being constructed Bayward of the existing protection rather than in the same location or upland of the current system." (*Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-3, AL-1]*)

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"Section 66602 of the McAteer-Petris Act states, in part, 'that maximum feasible public access, consistent with a proposed project, should be provided.' BCDC's determination of maximum feasible public access consistent with the project will require a better understanding of the public access and any closures proposed as part the project. Depending on the impact to existing or future public access from the proposed project, maximum feasible public access may be required to be incorporated into the project. We understand that a majority of the shoreline around SFO is currently closed to public access. If public access is not feasible on the project site, then in lieu public access may be required as part of the maximum feasible public access consistent with the project. The Final EIR should evaluate whether new public access is feasible with the proposed project or provide information on why this is not feasible. Additionally, the analysis should include potential alternatives that might be considered, including in lieu options." (*Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-4, AL-1]*)

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"The Bay Plan policies on Shoreline Protection require that any new shoreline protection be necessary to prevent flooding or erosion, be appropriate for the site and conditions, be appropriately engineered for flood protection for the expected life of the project and based upon the 100-year that takes into account future sea level rise, be integrated into current or planned adjacent shoreline protection, and avoid and minimize adverse impacts on nearby and adjacent areas. If there are impacts that cannot be avoided or minimized, measures to compensate should be required. Additionally, Policy No. 5 requires that 'all shoreline protection projects should evaluate the use of natural and nature-based features such as marsh vegetation, levees with transitional ecotone habitat, mudflats, beaches, and oyster reefs, and should incorporate these features to the greatest extent practicable. Ecosystem benefits, including habitat and water quality improvement,

should be considered in determining the amount of fill necessary for the project purpose. Suitability and sustainability of proposed shoreline protection and restoration strategies at the project site should be determined using the best available science on shoreline adaptation and restoration. Airports may be exempt from incorporating natural and nature-based features that could endanger public safety by attracting potentially hazardous wildlife.’

On February 28, 2019, during early coordination, BCDC Regulatory Director, Brad McCrea, recommended SFO to consider a variety of alternatives, including nonstructural methods, in its environmental process under CEQA. As a response to a January 14, 2019 letter to BCDC, he noted that in the absence of a complete CEQA analysis, an application, and/or additional project details, the Commission staff could not agree with the statement made in the letter stating that ‘for safety reasons, the shoreline protection measures encouraged in the Bay Plan Shoreline Protection Policy 4 are not feasible or appropriate at the airport and that the Project would not be rejected for not including ecosystem enhancements in its design.’ The DEIR environmental review process should incorporate information to evaluate how the proposed project would be consistent with the Commission’s shoreline protection policies, including an evaluation of nature-based alternatives. Any public safety issues associated with nature-based alternative should also be evaluated. The DEIR and alternatives analysis currently does not appear to include an assessment of the nature-based methods and the feasibility of these options. Please include an additional project alternative assessing a nature-based alternative and provide additional analysis on why it is not feasible.” (*Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-11, AL-1]*)

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“The Bay Plan policies on Airports say that in order to minimize the harmful effects of airport expansion into the Bay, a regional airport system plan should be prepared by a regional agency. Airport Policy 2.b states in part that ‘Expansion of existing general aviation airports should be permitted on Bay fill only if no feasible alternative is available.’ It is not clear from the DEIR that there is no feasible alternative available for the expansion into the Bay or the exact reasoning why Alternative C or other alternatives minimizing Bay fill were not selected as the preferred alternative. These alternatives could significantly reduce the amount of Bay fill required for the project.” (*Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-19, AL-1]*)

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“There is also no discussion of nature based solutions at all. I am well aware that SFO would prefer Millbrae to have no trees as trees to them means birds. And yet SFO has a lovely forest visitors see upon arrival to SFO.” (*City of Millbrae, Letter, 10/17/2022 [A-Millbrae-7, AL-1]*)

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“There is also no discussion of nature-based solutions at all. I am well aware that SFO would prefer Millbrae to have no trees as trees to them means birds. And yet SFO has a lovely forest visitors see upon arrival to SFO.” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-7, AL-1]*)

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## RESPONSE AL-1

The commenters state that fill should only be placed in the bay if it serves a public benefit and that the EIR should analyze additional alternatives that consider upland locations for the fill proposed in the bay and a nature-based shoreline protection system. The commenters also request more justification for the fill proposed in the bay and further analysis of the potential to provide public access to SFO's shoreline, and question why Alternative C was not selected as the preferred alternative. The commenters also state that it does not appear the Draft EIR included an analysis of alternative upland locates *[sic]* for the fill proposed in the bay, and the Draft EIR did not include an alternative assessing the feasibility of a nature-based shoreline protection system.

Regarding analysis of an alternative that would include upland locations for fill proposed in the bay under the proposed project, the commenter (BCDC) is directed to the evaluation of Alternative E: Reach 7 Lower Wall Height in Draft EIR Chapter 6, Alternatives (Draft EIR p. 6-6). Under this alternative, the shoreline protection system for Reach 7 would be constructed at the existing berm, which would reduce the total amount of open water fill from approximately 26 acres for the proposed project to approximately 15 acres (an approximately 42 percent reduction). The commenter is also directed to Draft EIR Section 6.E, Alternatives Considered but Eliminated from Further Analysis (Draft EIR pp. 6-75 to 6-76). This section discusses consideration of a concept that would raise the elevation of the Airport to a level that would protect Airport facilities and operations from future sea-level rise caused by climate change through 2085, thereby negating the need for a structural shoreline protection system. As provided in the discussion, this alternative would require an extensive construction period that would cause lengthy partial and/or full closures to various aspects of Airport operations and would be cost-prohibitive. It also would likely result in more numerous and more severe impacts to environmental resources than the proposed project, including but not limited to noise, biological resources, utilities and service systems, geology and soils, hydrology and water quality, cultural resources, and tribal cultural resources. Therefore, this alternative was rejected and was not further analyzed in the Draft EIR.

Regarding inclusion of an alternative assessing the feasibility of a nature-based shoreline protection system, the commenters (A-BCDC-3, A-BCDC-11, A-Millbrae-7, and I-Schneider2-7) are directed to Draft EIR Section 6.E, Alternatives Considered but Eliminated from Further Analysis (Draft EIR pp. 6-75 to 6-76). This section discusses consideration of a natural shoreline protection concept intended to reduce the amount of bay fill required to construct the project. This alternative would construct the shoreline protection system using organic materials such as dirt and rock to create berms rather than using reinforced concrete and steel sheet pile walls. As addressed in the discussion, this alternative would conflict with FAA regulations and the Airport Land Use Compatibility Plan in that it would create new marine habitat on Airport property that could result in increased wildlife conflicts with Airport operations. In particular, this concept would create wildlife attractants that could substantially increase aircraft hazards associated with bird strikes. Therefore, this alternative was rejected and was not analyzed further in the Draft EIR.

The commenter (BCDC) also identifies several items related to the proposed bay fill that should be further explained in the Final EIR, including an explanation for why the existing vehicle service road would be relocated towards the bay; an explanation for the need for the vehicle service road to include a 12-foot-wide shoulder and whether a smaller shoulder could achieve the same need; an explanation for why the current roadway does not meet FAA airport design standards; an evaluation of whether the roadway could be located elsewhere or be smaller in size to reduce the amount of bay fill, especially in Reaches 7 and 8; more detail and justification on the specific need for fill to maintain critical airspace surfaces and how the

proposed shoreline protection heights make any bay fill necessary, especially in Reaches 7 and 8; and why the shoreline protection system in all reaches is being constructed bayward of the existing protection system rather than in the same location or upland of the current system.

Regarding the overall design of the proposed shoreline protection system, Draft EIR Section 2.C, Project Background, provides a detailed description of the federal (FEMA), state (OPC and California Natural Resources Agency), and local (City and County of San Francisco) studies, guidance, and requirements that establish the need for the proposed project. Draft EIR Section 2.C also describes the process in which SFO's Conceptual Design Study and subsequent refinements, based on updated guidance regarding planning for sea-level rise issued by California Natural Resources Agency, determined that the proposed design of the shoreline protection system is most appropriate to meet FEMA requirements and to accommodate projected sea-level rise. With regard to the request for further explanation for why the current vehicle service road does not meet FAA airport design standards, the commenter is directed to Draft EIR p. 2-40, which explains that the vehicle service road would be relocated outside of the primary Runway Object Free Area, a critical airspace surface, and to meet FAA airport design standards.

The A-BCDC-4 commenter states that BCDC's determination of maximum feasible public access consistent with the project pursuant to Section 66602 of the McAteer-Petris Act will require a better understanding of the public access and any closures proposed as part the project. Depending on the impact to existing or future public access from the proposed project, the commenter states that maximum feasible public access may be required to be incorporated into the project. The commenter states that the Final EIR should evaluate whether new public access is feasible with the proposed project or provide information on why this is not feasible. The commenter further states that the analysis should include potential alternatives that might be considered, including in lieu options.

As the commenter states, the majority of the shoreline around SFO is currently closed to public access. As discussed in Draft EIR Section 3.B.3, Regional Plans and Policies (pp. 3-8 to 3-10), the San Francisco Bay Trail runs along the coastline north and south of the Airport and provides regional bicycle access. In the project vicinity south of the Airport, a paved multi-use trail is located east of Old Bayshore Highway and ends within Bayfront Park at Millbrae Avenue. North of San Bruno Avenue, on the east side of U.S. 101, the Bay Trail continues north along the western edge of the Airport and under the U.S. 101/I 380 ramps to the intersection of South Airport Boulevard and North Access Road. The Bay Trail continues east along North Access Road and the shoreline to the San Mateo County Transit District (SamTrans) peninsula.

As discussed in Section E.6, Transportation and Circulation, of the initial study (see Draft EIR Appendix B), project construction activities could result in a temporary closure of the section of the Bay Trail along Reach 1. The affected section includes a portion of the trail that runs for about 1,000 feet on the north side of North Access Road that would need to be temporarily closed for a portion of the 5-month construction period for Reach 1 for the safety of trail users. However, the Bay Trail would be temporarily relocated during construction of the reach in a closed lane on North Access Road. Therefore, the proposed project would not result in permanent impacts to the Bay Trail or impede the planned completion of the trail.

The Draft EIR fully evaluates the proposed project's impacts related to public access to the shoreline. There is no requirement or basis under CEQA to evaluate whether new public access is feasible with the proposed project. Consistency between the proposed project and applicable policies and regulations would continue to be analyzed and considered as part of the permit application review and approval process required for the proposed project, independent of CEQA review. Any such potential conflicts also would be considered by

decision-makers during their deliberations on the merits of the proposed project and as part of their actions to approve, modify, or disapprove the project. This comment does not pertain to the adequacy, accuracy, or completeness of the Draft EIR's analysis of the proposed project's physical environmental impacts and thus does not require further response.

The A-BCDC-19 commenter states that it is not clear from the Draft EIR that there is no feasible alternative available for the expansion into the bay or the exact reasoning why Alternative C or other alternatives minimizing bay fill were not selected as the preferred alternative, as these alternatives could significantly reduce the amount of bay fill required for the project.

As discussed in Draft EIR Section 6.B, Alternatives Screening and Selection (Draft EIR p.6-3), the Draft EIR examines a reasonable range of alternatives to the proposed project. Alternatives were selected for analysis based on their ability to meet three criteria: (1) the alternative would attain most of the project's basic objectives, (2) the alternative would avoid or substantially lessen the significant environmental impacts of the proposed project, and (3) the alternative would be potentially feasible. With regard to consideration of an alternative that would include no expansion into the bay, the commenter is directed to Draft EIR Section 6.E, Alternatives Considered but Eliminated from Further Analysis (Draft EIR pp. 6-75 to 6-76). This section discusses consideration of a concept that would raise the elevation of the Airport to a level that would protect Airport facilities and operations from future sea-level rise caused by climate change through 2085, thereby negating the need for a structural shoreline protection system. As provided in the discussion, this alternative would require an extensive construction period that would cause lengthy partial and/or full closures to various aspects of Airport operations and would be cost-prohibitive. It also would likely result in more numerous and more severe impacts to environmental resources than the proposed project, including but not limited to noise, biological resources, utilities and service systems, geology and soils, hydrology and water quality, cultural resources, and tribal cultural resources. Therefore, this concept was rejected and was not further analyzed in the Draft EIR.

Regarding the reasoning for why Alternative C or other alternatives minimizing bay fill were not selected as the preferred alternative, as discussed in Draft EIR Section 6.D.1, Comparison of Alternatives and Their Ability to Meet Project Objectives, Alternative C, No Vehicle Service Road Relocation For Reaches 7, 8, 11, 13, and 14, was rejected because the existing vehicle service road, which does not meet FAA taxiway and taxilane object-free area standards, would remain in use, and therefore Alternative C would not meet the project objective to create a protection system that poses no safety hazards to Airport operations and satisfies FAA design standards. Alternative E, Reach 7 Lower Wall Height, under which the shoreline protection system for Reach 7 would be constructed at the existing berm, thereby resulting in a reduced wall height and reduced bay fill as compared to the proposed project, was rejected because it would not meet FEMA flood protection requirements, would not remove the Airport from the 100-year floodplain, and would not create a shoreline protection system that is adaptable to future projections of sea-level rise. As stated in Draft EIR Section 6.D.2, Environmentally Superior Alternative, Alternative B, Reaches 7 and 8 Extended Construction Duration, is the environmentally superior alternative among the project alternatives. By extending the construction durations for Reaches 7 and 8, Alternative B would lessen the significant impact associated with construction-related NO<sub>x</sub> emissions identified for the proposed project while meeting most of the project objectives. Specifically, Alternative B would meet the project objectives to protect travelers and workers, Airport operations, and City assets from flooding resulting from a 100-year flood and future sea-level rise; would remove the Airport from the 100-year floodplain; and would create a shoreline protection system that

is adaptable to future projections of sea-level rise. As such, this comment does not necessitate revisions to the Draft EIR and no further responses is required.

## 4.K Land Use and Planning [LU]

The comments and corresponding responses in this section cover the subjects included in Initial Study Section E.1, Land Use and Planning. The comment topics relate to:

- LU-1: Conflict with Land Use Plan

### 4.K.1 Comment LU-1: Conflict with Land Use Plan

This response addresses the following comment, which is quoted below:

A-BCDC-7

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“Section 3.B.2 of the DEIR discusses State Plans and Policies, including BCDC and the Bay Plan on pages 3-3 to 3-7. This section states, ‘the following general policies of the Bay Plan would apply to the proposed project’ and then identifies Shoreline Protection Policies 1, 2, 3, 4, and 6. This section then briefly describes how the proposed project would not conflict with these policies.

However, the Commission applies all relevant Bay Plan policies when considering a proposed project and this section fails to identify other key policies of the Bay Plan applicable to the proposed project, notably Mitigation Policies 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10. Therefore, the determination on page 4 of the Initial Study that Impact LU-2 would be less than significant is not yet justified.<sup>1</sup> While BCDC staff does not have a position at this time as to whether or not the proposed project would cause a significant physical environmental impact due to a conflict with Mitigation Policies 1 through 10, by the same token (as will be explained further below), staff believes that the discussion within the DEIR of proposed mitigation for Bay fill impacts caused by the proposed project is too cursory to justify the conclusion reached regarding Impact LU-2.” (*Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-7, LU-1]*)

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## RESPONSE LU-1

The commenter states that the Draft EIR fails to identify Bay Plan Mitigation Policies 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10, which are applicable to the proposed project, and therefore, the determination in the initial study (see Draft EIR Appendix B) that Impact LU-2 would be less than significant is not justified. The commenter further states that while BCDC staff does not have a position at this time as to whether or not the proposed project would cause a significant physical environmental impact due to a conflict with Bay Plan Mitigation Policies 1 through 10, staff believes that the discussion in the Draft EIR of proposed mitigation for bay fill impacts caused by the proposed project is too cursory to justify the conclusion reached regarding Impact LU-2.

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<sup>1</sup> Impact LU-2 states: ‘The proposed project would not cause a significant physical environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)’

#### 4. Draft EIR Revisions

##### 4.L. Transportation and Circulation [TR]

The commenter is directed to the discussion of the proposed project's consistency, or lack thereof, with Bay Plan policies pertaining to shoreline protection projects in Chapter 3, Plans and Policies, pp. 3-4 through 3-7. Based on this discussion, the analysis under Impact LU-2, p. 4-5, finds that the proposed project would not conflict with an adopted land use plan or policy. The mitigation policies to which the commenter is referring relate to compensatory mitigation programs for projects proposing fill in the bay. As discussed under Response BI-3, p. 4-36, the specific type of fill to be used inland of the sheet pile walls is not yet known nor has a compensatory mitigation application been submitted; therefore, an analysis of the proposed project's consistency with these policies cannot be undertaken at this time. As further discussed under Response BI-3, Mitigation Measure M-BI-5b identifies measures that would be required to mitigate for placement of fill in the bay as required by the permitting process for implementation of the proposed project, and consistency with Bay Plan Mitigation Policies 1 through 10 would be determined by the regulatory agencies with authority over these features during the permitting process. As such, the proposed project's consistency with these policies will be determined and considered as part of the permit application review and approval process required for the proposed project.

### 4.L Transportation and Circulation [TR]

The comments and corresponding responses in this section cover the subjects included in Initial Study Section E.6, Transportation and Circulation. The comment topics relate to:

- TR-1: Construction Traffic, Mitigation, Equitable Access, and Encroachment Permits

#### 4.L.1 Comment TR-1: Construction Traffic, Mitigation, Equitable Access, and Encroachment Permits

This response addresses the following comments, which are quoted below:

A-Caltrans-3

A-Caltrans-4

A-Caltrans-5

A-Caltrans-6

A-Millbrae-3

I-Schneider2-2

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“Project work that requires movement of oversized or excessive load vehicles on State roadways requires a transportation permit that is issued by Caltrans. To apply, visit: <https://dot.ca.gov/programs/traffic-operations/transportation-permits>.

Prior to construction, coordination may be required with Caltrans to develop a Transportation Management Plan (TMP) to reduce construction traffic impacts to the State Transportation Network (STN).” (*Mark Leong, District Branch Chief, Local Development Review, California Department of Transportation, District 4, Letter, 10/17/2022 [A-Caltrans-3, TR-1]*)



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“As the Lead Agency, the City and County of San Francisco is responsible for all project mitigation, including any needed improvements to the STN. The project’s fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures.” (Mark Leong, District Branch Chief, Local Development Review, California Department of Transportation, District 4, Letter, 10/17/2022 [A-Caltrans-4, TR-1])

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“If any Caltrans facilities are impacted by the project, those facilities must meet American Disabilities Act (ADA) Standards after project completion. As well, the project must maintain bicycle and pedestrian access during construction. These access considerations support Caltrans’ equity mission to provide a safe, sustainable, and equitable transportation network for all users.” (Mark Leong, District Branch Chief, Local Development Review, California Department of Transportation, District 4, Letter, 10/17/2022 [A-Caltrans-5, TR-1])

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“Please be advised that any permanent work or temporary traffic control that encroaches onto Caltrans’ Right-of-Way (ROW) requires a Caltrans-issued encroachment permit. As part of the encroachment permit submittal process, you may be asked by the Office of Encroachment Permits to submit a completed encroachment permit application package, digital set of plans clearly delineating Caltrans’ ROW, digital copy of signed, dated and stamped (include stamp expiration date) traffic control plans, this comment letter, your response to the comment letter, and where applicable, the following items: new or amended Maintenance Agreement (MA), approved Design Standard Decision Document (DSDD), approved encroachment exception request, and/or airspace lease agreement. Your application package may be emailed to [D4Permits@dot.ca.gov](mailto:D4Permits@dot.ca.gov).

Please note that Caltrans is in the process of implementing an online, automated, and milestone-based Caltrans Encroachment Permit System (CEPS) to replace the current permit application submittal process with a fully electronic system, including online payments. The new system is expected to be available during 2022. To obtain information about the most current encroachment permit process and to download the permit application, please visit <https://dot.ca.gov/programs/traffic-operations/ep/applications>.” (Mark Leong, District Branch Chief, Local Development Review, California Department of Transportation, District 4, Letter, 10/17/2022 [A-Caltrans-6, TR-1])

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“**2. Aviador Lot, Millbrae** – 2.5 acres to be used as one of the two main staging areas. Later in the DEIR is more detail on how SFO plans to use this location and how a project is underway in Millbrae adjacent to Aviador Lot. This is true and the projects are almost complete, with residents set to move in by the end of 2022. The DEIR goes on to say SFO operations at Aviador Lot won’t cause much environmental damage. This is simply not true. There will be extreme wear and tear on brand new roads, you will not be able to run trucks under the hotel on Garden Lane and you will be making the new portion of the Bay Trail, which will run along Aviador extremely dangerous by litter the brand new bike pedestrian pathways full of gravel and dirt. This will damage tires and cause immediate stops for anyone skating on our new portion of the SF Bay Trail. The use of Aviador Lot for heavy construction is dangerous to local residents and everyone using the SF Bay Trail.” (City of Millbrae, Letter, 10/17/2022 [A-Millbrae-3, TR-1])

“**Aviador Lot, Millbrae** – 2.5 acres to be used as one of the two main staging areas. Later in the DEIR is more detail on how SFO plans to use this location and how a project is underway in Millbrae adjacent to Aviador Lot. This is true and the projects are almost complete, with residents set to move in by the end of 2022. The DEIR goes on to say SFO operations at Aviador Lot won’t cause much environmental damage. This is simply not true. There will be extreme wear and tear on brand new roads, you will not be able to run trucks under the hotel on Garden Lane and you will be making the new portion of the Bay Trail, which will run along Aviador, extremely dangerous by littering the brand-new bike pedestrian pathways full of gravel and dirt. This will damage tires and cause immediate stops for anyone skating on our new portion of the SF Bay Trail. The use of Aviador Lot for heavy construction is dangerous to local residents, tourists and everyone using the SF Bay Trail. We are already recreationally constrained by SFO and the SFPUC (Watershed land on our west flank).” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-2, TR-1]*)

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## RESPONSE TR-1

The comments note that coordination with Caltrans may be required to develop a transportation management plan; that mitigation should consider the proposed project’s fair share contribution, financing, scheduling, implementation responsibilities; and that the proposed project must meet Americans with Disabilities Act (ADA) standards and maintain bicycle and pedestrian access during construction. The comments also note that any work that encroaches into a Caltrans right-of-way would require a permit from Caltrans and provide additional information regarding Caltrans’ permit application submittal process.

The commenter (A-Caltrans-3) provides information on Caltrans permits and coordination efforts that may be required of the proposed project, encroachment permits for any construction work to be conducted in the Caltrans right-of-way, and oversize/overweight vehicle permits. The planning department acknowledges this information and is committed to ensuring the Airport complies with all relevant legal requirements related to Caltrans permitting. As discussed on initial study p. 63 (see Draft EIR Appendix B), SFO or its contractors would implement a traffic control plan as part of the proposed project. While the fully developed traffic control plan has not yet been prepared, the parameters set forth in the Draft EIR specify that the traffic control plan would include the provision that Caltrans encroachment permits would be obtained where construction activities occur within the Caltrans right-of-way.

In addition, the commenter (A-Caltrans-4, A-Caltrans-5, and A-Caltrans-6) specifies how impacts to Caltrans facilities should be addressed in the Draft EIR (i.e., mitigation funding, scheduling, and implementation responsibilities, and maintenance of ADA, bicycle, and pedestrian access during project construction). Potential CEQA impacts related to project construction activities are addressed on initial study pp. 59 to 67 (see Draft EIR Appendix B). As described therein, no significant impacts to Caltrans facilities were identified and, therefore, no mitigation measures were proposed.

The commenters (A-Millbrae-3 and I-Schneider2-2) expressed concerns about the use of the Aviador Lot in Millbrae as one of the proposed staging areas to be used during project construction. Concerns raised by the commenters relate specifically to roadway wear-and-tear, the inability of trucks to use Garden Lane due to height restrictions posed by the hotel, and the effects of construction activities on the planned extension of the Bay Trail on Aviador Avenue.

Potential impacts related to project construction activities are addressed on initial study pp. 59–67 (see Appendix B of the Draft EIR). Pursuant to the requirements of the San Francisco Planning Department,<sup>29</sup> the transportation and circulation analysis evaluated the overall effect of construction duration and intensity, and impacts related to potentially hazardous conditions, accessibility, and transit service. The analysis concluded that, by implementing the traffic control plan for the proposed project, truck access to and from the Aviator Lot construction staging area would not (a) substantially increase the number of vehicles on area roadways, (b) create potentially hazardous conditions for people driving, walking, or bicycling, or for public transit operations, (c) substantially interfere with accessibility for people walking or bicycling, or interfere with emergency access, or (d) substantially delay bus operations. Specific issues raised by the commenters are addressed below:

- **Roadway wear-and-tear:** The evaluation of a project’s impact on roadway wear-and-tear is not required by CEQA. Public roadways that are designated for use by heavy vehicles (i.e., construction trucks) are designed/constructed to accommodate a mix of vehicle types and, therefore, construction vehicles generated by the proposed project would not introduce an unusual vehicle size/weight to area roadways. The maintenance of public roadways is the responsibility of local agencies with jurisdictional authority over such roadways; it is not the responsibility of any one project to address pavement deficiencies. However, as discussed Section E.6, Transportation and Circulation, of the initial study (see Draft EIR Appendix B), in compliance with Airport Standard Construction Measures Division 01 35 43.01, Demolition, and Division 01 55 26, Traffic Regulation, SFO or its contractors would prepare and implement a traffic control plan that conforms to the California Manual of Uniform Traffic Control Devices and is consistent with SFO traffic regulations and the policies of the police department’s Airport Bureau. The elements of the traffic control plan would include, as appropriate, circulation and detour routes; advance warning signage; construction truck routes; maintenance of pedestrian and bicycle access and circulation; vehicle, pedestrian, or bicycle detour routes; designation of sufficient staging areas; scheduling and monitoring of construction vehicle movement; and coordination with public service providers such as transit, fire, police, schools, and hospitals. The traffic control plan would serve to inform City, state, and federal agencies of construction of the proposed project and minimize temporary transportation effects in the vicinity of the construction area.
- **Truck access via Garden Lane:** As discussed on initial study p. 63 (see Draft EIR Appendix B), SFO or its contractors would implement a traffic control plan as part of the proposed project and would deploy flaggers at the Aviator Lot construction staging area driveway as appropriate to facilitate truck access into and/or out of the driveway. The traffic control plan would also include provisions for additional traffic control that may be needed to accommodate wide turns made by oversized trucks at either end of Garden Lane, which is a two-lane, 24-foot curb-to-curb roadway. Oversized trucks that are unable to use Garden Lane would be redirected to an alternative route to be defined by the traffic control plan.
- **Bay Trail:** With respect to the planned extension of the Bay Trail adjacent to Aviator Avenue, the traffic control plan for the proposed project would maintain pedestrian and bicycle access and circulation to this facility (including the removal of any debris introduced by construction vehicles), if the extension were to be constructed during the same timeframe as project construction activities.

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<sup>29</sup> San Francisco Planning Department, *Transportation Impact Guidelines for Environmental Review*, October 2019, <https://sfplanning.org/project/transportation-impact-analysis-guidelines-environmental-review-update#impact-analysis-guidelines>, accessed April 9, 2021.

## 4.M Recreation [RE]

The comments and corresponding responses in this section cover the subjects included in Initial Study Section E.12, Recreation. The comment topics relate to:

- RE-1: Impacts on Public Access for the Waterfront

### 4.M.1 Comment RE-1: Impacts on Public Access for the Waterfront

This response addresses the following comment, which is quoted below:

A-BCDC-5

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“The DEIR on page 3-10 mentions that the Bay Trail runs on the coastline north and south of SFO and that there is public access along Reach 1, which includes some potential fishing. The DEIR mentions that there will be temporary closure of the Bay Trail along Reach 1 during construction activities. The closure is estimated to occur along 1,000 linear feet of Reach 1 and will be closed for a period of five months. The DEIR mentions that the trail will be temporarily relocated to a closed lane on the North Access Road. Please include information on whether this detour will allow for the fishing opportunities to remain open or not during the construction activities. In order to fully evaluate the public access impacts and any proposed alternative routes or compensation for public access closures, the Final DEIR should include more detailed information on this.” (*Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-5, RE-1]*)

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### RESPONSE RE-1

The commenter requests information on whether the temporary closure of the Bay Trail along Reach 1 during construction activities would allow for the fishing opportunities to remain open or not during the construction activities.

For purposes of CEQA, the determination of a project’s recreational impacts is based on whether a project would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated, or whether a project would require the construction or expansion of recreational facilities that could result in an adverse physical effect on the environment. As this comment does not pertain to the adequacy, accuracy, or completeness of the Draft EIR’s analysis of the proposed project’s physical environmental impacts, no further response is required.

## 4.N General Comment [GC]

The comments and corresponding responses in this section cover the subjects included in initial study Section E.12, Recreation. The comment topics relate to:

- GC-1: Environmental Justice

- GC-2: Public Trust
- GC-3: Planning Commission Hearing
- GC-4: Impacts of Project on City of Millbrae
- GC-5: Cumulative Impacts
- GC-6: Summary
- GC-7: Fiscal Analysis
- GC-8: Public Outreach
- GC-9: Inadequacy of EIR
- GC-10: Support for the EIR

#### 4.N.1 Comment GC-1: Environmental Justice

This response addresses the following comment, which is quoted below:

A-BCDC-17

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“Please note that Page 3-6 mentions that as a requirement of the BCDC permitting process, equitable and culturally-relevant community outreach and engagement would be conducted for nearby communities and that the proposed project would not conflict with this Shoreline Protection Policy 2. However, please note that this policy is intended to guide the project proponents to conduct such outreach during their planning and design phases of the project and this should not wait entirely until the permitting process. If there has not been meaningful outreach and community engagement by the time a project applies for permitting, then additional outreach or engagement may be required prior to Commission action, but we encourage SFO and the City to begin this engagement as soon as possible and throughout the project planning. If SFO needs any assistance identifying ways to do meaningful community outreach and engagement, please contact BCDC staff and we can provide guidance and tools to assist with this.

We also encourage the City and SFO to also take a look at the Mitigation Policy 3, which states ‘[f]or major and appropriate minor projects that require compensatory mitigation, communities surrounding both the project and the compensatory mitigation site should be meaningfully involved in an equitable and culturally-relevant manner. In particular, vulnerable, disadvantaged, and/or underrepresented communities should be involved. This should include consultation with the community in the identification and prioritization of potential projects, and in the monitoring and programming of a mitigation site. If such previous outreach and engagement did not occur, further outreach and engagement should be conducted prior to Commission action.’ As any mitigation options are developed for the project, SFO should do community outreach related to any vulnerable, disadvantaged, and/or underrepresented communities located near the project area and those communities that are located near the compensatory mitigation site.” (*Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-17, GC-1]*)

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## RESPONSE GC-1

The commenter notes that the Bay Plan Shoreline Protection Policy 2, which states that equitable and culturally relevant community outreach and engagement should be conducted to meaningfully involve nearby communities for all shoreline protection project planning and design processes, is intended to guide project proponents to conduct such outreach during their planning and design phases of the project and this should not wait until the permitting process. The commenter further states that if there has not been meaningful outreach and community engagement by the time a project applies for permitting, then additional outreach or engagement may be required prior to Commission action. The commenter encourages SFO and the City to begin this engagement as soon as possible and throughout the planning for the proposed project and offers BCDC assistance in this effort if needed.

The commenter also encourages the City and SFO to look at Bay Plan Mitigation Policy 3, which states that, for major and appropriate minor projects that require compensatory mitigation, communities surrounding both the proposed project and the compensatory mitigation site should be meaningfully involved in an equitable and culturally relevant manner. In particular, vulnerable, disadvantaged, and/or underrepresented communities should be involved. This should include consultation with the community in the identification and prioritization of potential projects, and in the monitoring and programming of a mitigation site. If such previous outreach and engagement did not occur, further outreach and engagement should be conducted prior to Airport Commission action. The commenter further states that, as any mitigation options are developed for the proposed project, SFO should do community outreach related to any vulnerable, disadvantaged, and/or underrepresented communities located near the project area and those communities that are located near the compensatory mitigation site.

The comments above are acknowledged by SFO and City staff and will be provided to City decision makers for consideration in their deliberations on the proposed project. The comments do not pertain to the adequacy, accuracy, or completeness of the Draft EIR's analysis of the proposed project's physical environmental impacts and thus does not require further response.

### 4.N.2 Comment GC-2: Public Trust

This response addresses the following comment, which is quoted below:

A-BCDC-20

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“Section 3.B.2 of the DEIR discusses State Plans and Policies, including the Public Trust. This section states in relevant part that: ‘The San Francisco Airport Commission will determine the proposed project’s consistency with the Public Trust.’ However, because current and former submerged lands and tidelands within the project site may also occur within BCDC’s Bay and shoreline band jurisdictions, at the permitting stage for the proposed project, BCDC consideration of any permit application will require evaluation of consistency with Bay Plan Policies regarding the Public Trust and Filling for Public Trust Uses on Publicly-Owned Property Granted in Trust to a Public Agency by the Legislature.” (*Anniken Lydon, Bay Resources Program Manager, San Francisco Bay Conservation and Development Commission, Letter, 10/17/2022 [A-BCDC-20, GC-2]*)

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## RESPONSE GC-2

The commenter states that, because current and former submerged lands and tidelands within the proposed project site may occur within BCDC's Bay and shoreline band jurisdictions, at the permitting stage for the proposed project, BCDC consideration of any permit application will require evaluation of consistency with Bay Plan Policies regarding the Public Trust and Filling for Public Trust Uses on Publicly Owned Property Granted in Trust to a Public Agency by the Legislature.

The comment is acknowledged by SFO and City staff and will be provided to City decision makers for consideration in their deliberations on the proposed project. The comment does not pertain to the adequacy, accuracy, or completeness of the Draft EIR's analysis of the proposed project's physical environmental impacts and thus does not require further response.

### 4.N.3 Comment GC-3: Planning Commission Hearing

This response addresses the following comment, which is quoted below:

I-Schneider1-1

I-Schneider3-1

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"Hello, Mr. Kim. This is Ann Schneider, councilman, City of Millbrae.

I was trying to raise my hand over and over again at the Planning Commission hearing today only to get disconnected several times.

The City of Millbrae did have comments.

I have comments and I'm very disappointed in the process. I listened to the entire Planning Commission meeting to get basically booted off.

The City will follow up with written comments, but really disappointing that we didn't have our time in front of the Planning Commission.

Thank you. Bye"

*(Ann Schneider, Voicemail, 10/6/2022 [I-Schneider1-1, GC-3])*

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"Hello, Mr. Li. This is Ann Schneider, councilman, City of Millbrae.

And I'm very frustrated. I listened to the entire Planning Commission and was in the queue, I thought, only to be disconnected when the Chair called for people on the phone.

Dialed back in, was sitting out there listening to all of the commissioners talk and never got a chance to present the concerns that the City of Millbrae has.



I know we have it in writing. I just would have liked to have had my time in front of the Planning Commission of San Francisco. So I'll include the complaint in the process. But your system disconnected me multiple times, and I have it recorded on my phone.

But if you can get back to me—it's too late now. Everybody walked out of the room.”

Ann Schneider, City of Millbrae, councilman, former mayor, SFO Noise Round Table and the city's lead on sea level rise. 650.697.6249.

And just -- my God, the commissioners didn't say boo, not boo, for something that is such a huge event. That is absolutely disappointing. Absolutely. Disappointing.” (*Ann Schneider, Voicemail, 10/6/2022 [I-Schneider3-1, GC-3]*)

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## **RESPONSE GC-3**

The commenter conveys frustration resulting from technical difficulties (e.g., disconnection) experienced while remotely attending the public hearing conducted by the planning commission to receive oral comments on the Shoreline Protection Program Draft EIR on October 6, 2022. The commenter notes that the City of Millbrae's comments on the Draft EIR will be provided in writing.

The City and SFO acknowledge and regret the frustration experienced by the commenter. However, the technological glitch did not prevent the commenter from submitting written comments on the Draft EIR prior to the end of the public comment period. The City and SFO have received the comment letters submitted by the commenter, which are included and addressed in this response to comments document. This comment does not pertain to the adequacy, accuracy, or completeness of the Draft EIR's analysis of the proposed project's physical environmental impacts and thus does not require further response.

### **4.N.4 Comment GC-4: Impacts of Project on City of Millbrae**

This response addresses the following comment, which is quoted below:

A-Millbrae-1

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“II. The Draft EIR does not comply with CEQA because it is not an adequate informational document, does not address impacts on residential neighborhoods of the City of Millbrae within the environs of San Francisco International Airport; and fails to adequately study more environmentally sensitive alternatives such as artificial reefs and other sea level rise mitigation technology.

The California Environmental Quality Act (Public Resources Code §§ 21000 et seq./‘CEQA’) and accompanying Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, §§ 15000 et seq.) require an environmental impact report to be an ‘informational document.’ (CEQA Guidelines § 15121.) The purpose of an EIR is to inform public agency decisionmakers and the public generally about the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. ‘When the informational requirements of CEQA are not complied with, an agency has failed to proceed in “a manner required by law” and has therefore abused its discretion.’ (Save



our Peninsula Committee v. Monterey County Board of Supervisors (2001) 87 Cal.App.4th 99, 118.) More specifically, if an EIR does not ‘adequately apprise all interested parties of the true scope of the project for intelligent weighing of the environmental consequences of the project,’ it is inadequate as a matter of law. (Communities for a Better Environment v. City of Richmond (2010) 184 Cal.App.4th 70, 82-83.) The Draft EIR is so internally inconsistent, and unfocused on the impacts specifically to the City of Millbrae environs, population displacement, impacts of flooding resulting from the SFO owned and maintained Lomita Canal and Highline Canal as a result of the proposed project that it fails to apprise all interested parties.

Further, the document is lengthy and confusing making it is impossible to locate, as it does not seem to exist, simple impact conclusions or even identify the impacts and mitigation on properties located in the Landing Lane neighborhood, Marina Vista Neighborhood and Bayside Manor Neighborhood within the City of Millbrae. The document lacks clear information or completely ignores the impact, mitigation measures on these neighborhoods that it does not fulfill its purpose as an informational document and does not comply with CEQA.” (*City of Millbrae, Letter, 10/17/2022 [A-Millbrae-1, GC-4]*)

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## RESPONSE GC-4

The commenter states that the Draft EIR does not comply with CEQA and cites a range of claimed technical, legal, and procedural deficiencies and omissions related to the Draft EIR that are unsupported by substantial evidence. The commenter states that the Draft EIR does not address impacts of the proposed project on residential neighborhoods of the City of Millbrae and within the environs of SFO but does not specify which impacts the Draft EIR purportedly fails to address. The Draft EIR addresses potential impacts related to noise, air quality, transportation, and all other relevant environmental topics in compliance with CEQA. The commenter states without substantial evidence that the Draft EIR fails to adequately study more environmentally sensitive alternatives such as artificial reefs and other sea-level rise mitigation technology. In accordance with CEQA Guidelines section 15126.6(a), Draft EIR Chapter 6, Alternatives, examines a reasonable range of alternatives to the proposed project, including alternatives that would avoid or substantially lessen the significant environmental impacts of the proposed project. The commenter does not define the “artificial reefs” and “other sea-level rise mitigation technology” that the Draft EIR purportedly fails to consider or provide evidence to support the claim that the Draft EIR is deficient for not considering these unspecified technologies. The commenter makes further unsupported claims that the Draft EIR does not adequately evaluate impacts of the proposed project related to flooding and population displacement when in fact these impacts are fully addressed respectively in Draft EIR Section 4.F, Hydrology and Water Quality, and in Section E.3, Population and Housing, of the initial study (see Draft EIR Appendix B). These comments do not provide any substantial evidence regarding the claimed technical, legal, and procedural deficiencies and omissions related to the Draft EIR and thus do not require further response.

### 4.N.5 Comment GC-5: Cumulative Impacts

This response addresses the following comment, which is quoted below:

A-Millbrae-2

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“III. The Draft EIR fails to analyze reasonably foreseeable and cumulative environmental impacts related to development in the environs of SFO including the Millbrae Station Area Specific Plan. An EIR must ‘provide sufficient meaningful information regarding the types of activity and environmental effects that are reasonably foreseeable.’ (Laurel Heights, *supra*, 47 Cal.3d at 399). There are two types of foreseeable development near Millbrae Station - development currently anticipated by the Millbrae Station Area Specific Plan (‘MSASP’), and development that is reasonably foreseeable given the nature of the Project as a transit project. The Draft EIR does not provide sufficient information about potential environmental effects to this future development near Millbrae Station.

The Draft EIR fails to analyze foreseeable and cumulative development pursuant to the Millbrae Station Area Specific Plan.

1. **The MSASP** – provides for high density, mixed-use development adjacent to the existing BART/Caltrain station. The MSASP was adopted in 1998 and updated in 2016. It locates a transit-oriented development zone (known as ‘TOD #1’) in the area that the Project fails to acknowledge. The City has already approved a development project for TOD #1 containing 488 multifamily residential units (including 67 affordable units) and approximately 300,000 square feet of office and retail. The Draft EIR/EIS does not analyze or disclose any potential environmental effects to the TOD #1 project.” (*City of Millbrae, Letter, 10/17/2022 [A-Millbrae-2, GC-5]*)

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## RESPONSE GC-5

The commenter states that the Draft EIR fails to analyze reasonably foreseeable and cumulative environmental impacts related to development in the environs of SFO, including development pursuant to the Millbrae Station Area Specific Plan adopted in 1998 and updated in 2016 and approved development pursuant to TOD #1 within the Millbrae Station Area Specific Plan.

As discussed in the Approach to Cumulative Impact Analysis in Draft EIR Chapter 4, Environmental Setting, Impacts, and Mitigation Measures (Draft EIR p. 4-5), the following factors were used to determine an appropriate list of projects to be considered in the cumulative analysis:

- **Similar Environmental Impacts**—A relevant project contributes to effects on resources that are also affected by the proposed project. A relevant future project is defined as one that is “reasonably foreseeable,” such as a proposed project for which an application has been filed with the approving agency or has approved funding.
- **Geographic Scope and Location**—A relevant project is located within the geographic area within which effects could combine. The geographic scope varies on a resource-by-resource basis. For example, the geographic scope for evaluating cumulative effects to regional air quality consists of the affected air basin.
- **Timing and Duration of Implementation**—Effects associated with activities for a relevant project (e.g., short-term construction or demolition, or long-term operations) would likely coincide in timing with the related effects of the proposed project.

As further discussed in the Approach to Cumulative Impact Analysis in the Draft EIR, CEQA Guidelines section 15130(b)(1) outlines two approaches to a cumulative impact analysis: (1) the analysis can be based on a list

of past, present, and reasonably foreseeable probable future projects producing closely related impacts that could combine with those of a proposed project, or (2) a summary of projections contained in a general plan or related planning document can be used to determine cumulative impacts. The analyses in the Draft EIR employed both the list-based approach and a projections-based approach, depending on which approach best suits the resource topic being analyzed. For example, the analysis of cumulative recreation impacts used the list-based approach and considered individual projects that are anticipated in the vicinity of the project site that may affect recreational resources also affected by the proposed project. By comparison, the cumulative air quality analysis relied on a projection of overall growth and other reasonably foreseeable projects, which is the typical methodology the planning department applies to the cumulative analysis of air quality impacts.

For the resource topics using the list-based approach, Draft EIR Table 4-1 (pp. 4-6 to 4-7) presents a comprehensive list of cumulative development and infrastructure projects generally located within 0.25 mile of the project site that are considered in the various cumulative analyses.

Draft EIR Table 4-1, Cumulative Projects within 0.25 Mile of the Project Site, p. 4-6, includes a footnote that there are two projects located within 0.25 mile of the project site that are currently under construction and therefore are considered to be part of the existing conditions/baseline for the proposed project. The two projects include the Gateway at Millbrae Station project located in the City of Millbrae adjacent to the Aviator Lot construction staging area, which is referred to by the commenter as TOD #1, and the Police Training Support Facility and Terminal 1 Center Expansion located on Airport property. As noted in the footnote, because the Gateway at Millbrae Station project was under construction at the time the NOP for the proposed project was published (November 25, 2020), the project is considered part of the existing conditions/baseline and not a cumulative project. Therefore, this project was considered in the Draft EIR and no further responses is required.

#### 4.N.6 Comment GC-6: Summary

This response addresses the following comments, which are quoted below:

A-Millbrae-6

I-Schneider2-6

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**“5. Nature Based Solutions to Sea Level Rise** – the Summary should include a table with all the proposed bay fill and the impacts to local communities.” (*City of Millbrae, Letter, 10/17/2022 [A-Millbrae-6, GC-6]*)

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**“Nature Based Solutions to Sea Level Rise** – the Summary should include a table with all the proposed bay fill and the impacts to local communities.” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-6, GC-6]*)

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#### RESPONSE GC-6

The commenters state that the Draft EIR Summary should include a table with all the proposed bay fill and the impacts to local communities. Chapter 2, Project Description, of the Draft EIR includes a complete and

detailed description of the proposed shoreline protection program, including the extent to which the proposed shoreline protection system would extend beyond the existing shoreline into the bay. In addition, Table S-1 on Draft EIR p. S-3 summarizes all of the impacts of the proposed project, identifies the significance of each impact, and presents the full text of the mitigation measures identified for the proposed project. The environmental impacts of the proposed project are identified and evaluated in Draft EIR Chapter 4, Environmental Setting, Impacts, and Mitigation Measures.

#### 4.N.7 Comment GC-7: Fiscal Analysis

This response addresses the following comments, which are quoted below:

A-Millbrae-14

I-Schneider2-17

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**“8. Fiscal Analysis** – loss of income to adjacent communities during construction – This seems to be missing entirely.” (*City of Millbrae, Letter, 10/17/2022 [A-Millbrae-14, GC-7]*)

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**“Fiscal Analysis** – loss of income to adjacent communities during construction – This seems to be missing entirely.” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-17, GC-7]*)

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#### RESPONSE GC-7

The commenters state that the Draft EIR does not address loss of income to adjacent communities during construction of the proposed project. The claim of lost income and its connection to construction of the proposed project is offered without substantial evidence. Furthermore, as provided in CEQA Guidelines section 15131, economic or social effects of a project are not treated as significant effects on the environment unless those effects could result in adverse physical changes. The comment does not provide facts or information that would support such a finding. The Draft EIR evaluated the physical effects of the proposed project. The comment does not raise specific issues concerning the adequacy, accuracy, or completeness of the Draft EIR’s analysis of the project’s physical environmental impacts and thus does not require further response.

#### 4.N.8 Comment GC-8: Public Outreach

This response addresses the following comments, which are quoted below:

A-Millbrae-17

I-Schneider2-1

I-Schneider2-20

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**“9. Millbrae shoreline and drainage** – Is not discussed. The Highline Canal, called by the wrong name is mentioned but how Millbrae and SFO can and should work together is not included. Understandable since it appears SFO staff and the DEIR consultants didn't try to work with Millbrae. I hope this is the reason why Lomita Canal in the ‘West of Bayshore Site’ which for us is adjacent to three neighborhoods (Airport Park, Marina Vista and Bayside Manor\*) isn't mentioned. I hope it was just an oversight and not a deliberate act to avoid discussion of previous SFO actions that have lead to physical damage and emotional distress to many Millbrae residents and clear costs to the City of Millbrae to mitigate flooding created by SFO negligence.” (*City of Millbrae, Letter, 10/17/2022 [A-Millbrae-17, GC-8]*)

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“I am concerned that staff from the City and County of San Francisco has not met with Millbrae staff or our elected officials or the community about the proposed work to make San Francisco Airport (SFO) resilient to 21<sup>st</sup> century sea level rise. This work will impact Millbrae residents from air pollution, historic preservation, noise and vibrations, quality of life to loss of revenue during and likely after construction to our hotels, restaurants and the City.

I am also speaking with knowledge I have gained by serving as the City of Millbrae's representative on the SFO Community Roundtable (SFORT) and as the Chair of the SFORT Ground Based Noise Committee. I am not speaking for either entity as there has been no time to bring the SFO SPP DEIR to any of the SFORT committees for any discussion. Although SFO staff mentioned this report at our Oct 4, 2022, SFORT public meeting but there was no mention of any of the work identified to be done in the SFO SPP DEIR. At minimum, the consultants and San Francisco staff should present to the SFORT, the noise issues that will come with five foot thick, 9.5' tall steel walls, increase in inert surfaces that will bounce more noise and the loss of wetlands, mudflats and water that can absorb sound. They should also report on the higher amount of air pollution that will come from runway closures and potential increases in reverse flow flights.

One of my main concerns is the lack of outreach by SFO in this process as well as all previous DEIRs on SFO projects, all which impact Millbrae negatively and all of which are not mitigated. In other words what SFO does greatly impacts the health and safety of the people and properties of Millbrae. This needs to stop and San Francisco needs to stop expecting the people of Millbrae to accept every negative impact and receive no economic, environmental or cultural benefit.” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-1, GC-8]*)

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**“Millbrae shoreline and drainage** is not discussed. The Highline Canal, called by the wrong name is mentioned but how Millbrae and SFO can and should work together is not included. Understandable since it appears SFO staff, and the DEIR consultants didn't try to work with Millbrae. I hope this is the reason why Lomita Canal in the ‘West of Bayshore Site’ which for us is adjacent to three neighborhoods (Airport Park, Marina Vista and Bayside Manor) isn't mentioned. I hope it was just an oversight and not a deliberate act to avoid discussion of previous SFO actions that have led to physical and economical damage and emotional distress to many Millbrae residents and clear costs to the City of Millbrae to mitigate flooding created by SFO negligence.” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-20, GC-8]*)

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## RESPONSE GC-8

The commenters state that the Millbrae shoreline and drainage is not discussed in the Draft EIR, and the Highline Canal is misnamed. The commenter further states that the Lomita Canal isn't mentioned and then expresses the hope that this claimed omission is not tied to willful evasion on the part of SFO in connection with negligence, physical damage, and emotional distress purportedly caused by SFO to the citizens of Millbrae. The commenter expresses further concern that staff from the City and County of San Francisco has not met with City of Millbrae staff or its elected officials or the community about efforts to address the effects of sea-level rise at SFO and associated impacts related to air pollution, historic preservation, noise and vibration, quality of life, and loss of revenue. The commenter expresses a desire for increased outreach regarding SFO projects and the effects of those projects to Millbrae.

With regard to community outreach regarding the proposed SFO Shoreline Protection Program, SFO staff reached out to Millbrae planning staff prior to the release of the Draft EIR offering to provide a briefing of the project. SFO staff did not receive a response from Millbrae planning staff on this offer. In addition, as presented in Section 1.B, Environmental Review Process, of this document, the scoping, noticing, and public and agency review process for the SFO Shoreline Protection Program Draft EIR has been conducted in accordance with CEQA requirements identified in CEQA Guidelines section 15087 and San Francisco Administrative Code chapter 31. The comments are acknowledged and will be provided to City decision makers for consideration in their deliberations on the proposed project. The comments do not raise specific issues that pertain to the adequacy, accuracy, or completeness of the Draft EIR's analysis of the project's physical environmental impacts and thus do not require further response.

### 4.N.9 Comment GC-9: Inadequacy of EIR

This response addresses the following comments, are quoted below:

I-Schneider2-21

I-Schneider2-23

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"There are errors like the ones I mention above throughout the document. It was written as if SFO was in San Francisco and not in San Mateo County surrounded by cities like Millbrae. The entire document does not discuss impacts to Millbrae and other close in communities. You need to fix this throughout the document and the appendixes. If not, then the DEIR will remain inadequate and subject to legal action." (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-21, GC-9]*)

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"I hate to say this, but I have firmly come to believe that the City and County of San Francisco as shown by its actions, that the people of Millbrae do not count, that we must suffer for San Francisco's benefit. That we are simply a colony of San Francisco that can treated as colonies were in the 17th to 20th centuries. That San Francisco does this even as they speak of equity and fairness. If San Francisco truly believes in equity and fairness, then the work described in the SFO SPP DEIR should improve existing conditions, should work arm and arm with the City of Millbrae and other close in communities to make life better for all of us. Sadly, this DEIR does none of that. And I for one will not stand for continual abuse by San Francisco on my community, on my friends and family or on me.

You have much more work to complete before this DEIR can be considered an honest and comprehensive EIR. Please reach out to Millbrae staff and SFORT staff to get real information and include the true and honest impacts of preparing SFO for sea level rise and atmospheric rivers.” (*Ann Schneider, Letter, 10/17/2022 [I-Schneider2-23, GC-9]*)

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## RESPONSE GC-9

The comments express a range of factually unsupported claims of Draft EIR deficiencies and other purported abuses and offenses perpetrated by the City and County of San Francisco on the City of Millbrae. The environmental impacts of the proposed project, including impacts on the surrounding communities, are identified and evaluated in Draft EIR Chapter 4, Environmental Setting, Impacts, and Mitigation Measures. Since these comments do not raise specific issues that pertain to the adequacy, accuracy, or completeness of the Draft EIR’s analysis of the project’s physical environmental impacts no further response is required.

### 4.N.10 Comment GC-10: Support for the EIR

This response addresses the following comment, which is quoted below:

A-CPC-Diamond-1

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“An incredible amount of work, and the EIR was, I found, fascinating. The division of the work into reaches made it very understandable. And the organization was extremely helpful in allowing us, on this major project, to get our arms around the extent of the work that's required and the importance of the work that's required.” (*Sue Diamond, Commissioner, San Francisco Planning Commission, Public Hearing, 10/6/2022 [A-CPC-Diamond-1, GC-10]*)

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## RESPONSE GC-10

The commenter expresses support for the Draft EIR. This comment will be provided to City decision makers for consideration in their deliberations on the proposed project.

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# CHAPTER 5

## DRAFT EIR REVISIONS

The following changes to the text of the Draft EIR are made in response to comments on the Draft EIR or are included to clarify the Draft EIR text. The revisions reflect changes identified in Chapter 4, Comments and Responses, or staff-initiated text changes; all of which clarify, expand, or update information and/or graphics presented in the Draft EIR. Staff-initiated changes to clarify information presented in the Draft EIR are highlighted with an asterisk (\*) in the margin to distinguish them from text changes in response to comments. The revised text does not provide new information that would result in any new significant impact not already identified in the Draft EIR and initial study or a substantial increase in the severity of an impact identified in the Draft EIR and initial study that cannot be mitigated to less than significant with implementation of mitigation measures agreed to by the project sponsor. Thus, none of the text revisions would require recirculation pursuant to CEQA Guidelines section 15088.5. The Draft EIR and this response to comments document together constitute the final EIR for the Shoreline Protection Program. In the revisions shown below, deleted text is shown in ~~strike through~~ and new text is double-underlined.

### 5.A Revisions to Summary

#### \* PAGE S-1, FOURTH PARAGRAPH

The Airport's shoreline and western landside boundary are divided into 16 reaches based on shoreline orientation, existing protection type, existing foreshore conditions, and existing landside conditions. The proposed project would construct a shoreline protection system for 15 of the reaches to eliminate the probability of substantial inundation at the Airport through 2085. In total, the proposed project, including Reach 16, would construct an approximately ~~55,550~~ 56,000-foot-long (approximately ~~10.5~~ 10.6 miles) shoreline protection system, which would require approximately 26 acres of open water fill in San Francisco Bay (the bay) and would impact approximately 3 acres of wetland areas for Reaches 1–15.

#### \* PAGE S-28, MITIGATION MEASURE M-BI-1E, ITEM 1

1. In areas identified as potential roosting habitat during the habitat assessment, any tree work (trimming or removal) shall occur when bats are active, approximately during the periods of March 1 to April 15 and August 15 to October 15, ~~to the extent feasible~~. These dates avoid the bat maternity roosting season and period of winter torpor. However, if work occurs during these dates, the following actions under items 2 through 6 shall be implemented to avoid impacts to bats.

### 5.B Revisions to Chapter 1, Introduction

#### \* PAGE 1-1, SECOND PARAGRAPH, LAST SENTENCE

... As such, while Reaches 1–15 are analyzed at the project level, the landside Reach 16 is analyzed at a program level. In total, the proposed project would construct an approximately ~~55,550~~ 56,000-foot-long (approximately ~~10.5~~ 10.6 miles) shoreline protection system, which would require approximately 26 acres of open water fill in San Francisco Bay and would impact approximately 3 acres of wetland areas.

## 5.C Revisions to Chapter 2, Project Description

### \* PAGE 2-1, SECOND PARAGRAPH

The Airport's shoreline and western landside boundary are divided into 16 reaches based on shoreline orientation, existing protection type, existing foreshore conditions, and existing landside conditions. The proposed project would construct a shoreline protection system for 15 of the reaches to eliminate the probability of substantial inundation at the Airport through 2085. In total, the proposed project, including Reach 16, would construct an approximately ~~55,550~~ 56,000-foot-long (approximately ~~10.5~~ 10.6 miles long) shoreline protection system, which would require approximately 26 acres of open water fill in San Francisco Bay (the bay) and would impact approximately 3 acres of wetland areas for Reaches 1–15.

### PAGE 2-6, FIRST PARAGRAPH, PENULTIMATE SENTENCE, NEW FOOTNOTE ADDED

... However, in 2020, based on a report released by the California Natural Resources Agency with updated guidance regarding planning for sea-level rise, SFO increased the height of the proposed shoreline protection system by 6 inches to accommodate up to 66 inches of sea-level rise during a 100-year flood.<sup>33,34</sup> ...

<sup>34</sup> The sections for each reach, such as Figure 2-5 for Reach 1, display the '42" SLR Design Elevation', which represents the 100-year flood elevation plus FEMA freeboard (24 inches) plus 42 inches for sea-level rise adaptation, for a total of 66 inches above the present-day 100-year flood elevation.

### \* PAGE 2-7, SECTION 2.E, NEW FOOTNOTE

## 2.E Summary of the Proposed Shoreline Protection Program<sup>18a</sup>

### \* PAGE 2-7, SECOND PARAGRAPH, PENULTIMATE SENTENCE

The proposed shoreline protection system for Reaches 1–16 would be approximately ~~55,550~~ 56,000 feet (~~10.5~~ 10.6 miles) long, would require the placement of approximately 26 acres of open water fill in the bay along various reaches and would impact approximately 3 acres of wetland areas. The steel sheet piles would be driven to maximum depth of approximately 79 feet.

<sup>18a</sup> SFO would coordinate with SamTrans to align the Airport's sea-level rise and climate action projects, such as the proposed project, with complementary SamTrans projects as they are further developed.

\* PAGE 2-9, TABLE 2-3, ROW FOR REACH 7

Reach No.	Reach Name	Proposed Shoreline Protection System	Maximum Height of the Wall above the Existing or Newly Graded Ground Surface (feet)	Maximum Depth of Disturbance below the Existing Ground (feet)	Length of Wall (feet)	Approximate Fill to Be Placed in the Bay (acres)	Approximate Fill to Be Placed in Wetland Areas (acres)
...							
7	Runway 19 End	Steel sheet pile wall; double steel sheet pile wall with <i>jet grout</i> <sup>30</sup> and <i>perimeter dike</i> <sup>31</sup>	13.5	78	<del>3,900</del> 4,400	11.28	0
...							
	<b>Total</b>	—	—	—	<del>55,550</del> 56,050	<b>25.84</b>	<b>2.59</b>
...							

\* PAGE 2-11, THIRD PARAGRAPH

Reach 1 extends beyond the flood control gate for approximately 1,400 feet to the junction of North Access Road and the entrance to the San Mateo County Transit District (SamTrans) peninsula at North Field Road. There is an existing non-exclusive ingress, egress, and underground utilities easement for the benefit of the North Base property; the Airport will coordinate with SamTrans to ensure that access to the North Base property is preserved.<sup>26a</sup> SamTrans peninsula, accessible via North Access Road, contains a SamTrans bus yard and the Safe Harbor Shelter.

\* PAGE 2-41, FIRST FULL PARAGRAPH

To accommodate construction of Reach 7, the existing approach lighting trestle at the end of Runway 19L would be demolished, and a new lighting trestle would be constructed. Reconstructing the lighting trestle would be necessary to ensure that the proposed shoreline protection system would not obstruct the navigation light plane from the approach lights, which facilitates aircraft arrivals on Runway 19L. Therefore, the proposed project would construct a new approximately 4.5-foot-taller, 1,000-foot longer lighting trestle in approximately the same location as the existing lighting trestle, remove the existing approach lights, demolish the existing lighting trestle, and remove the existing wood piles in the bay that support the lighting trestle (see **Figure 2-25**). The Airport assumes temporary interruption of operations on Runway 19L would occur during construction of the lighting trestle and testing of the reinstalled approach lighting system.

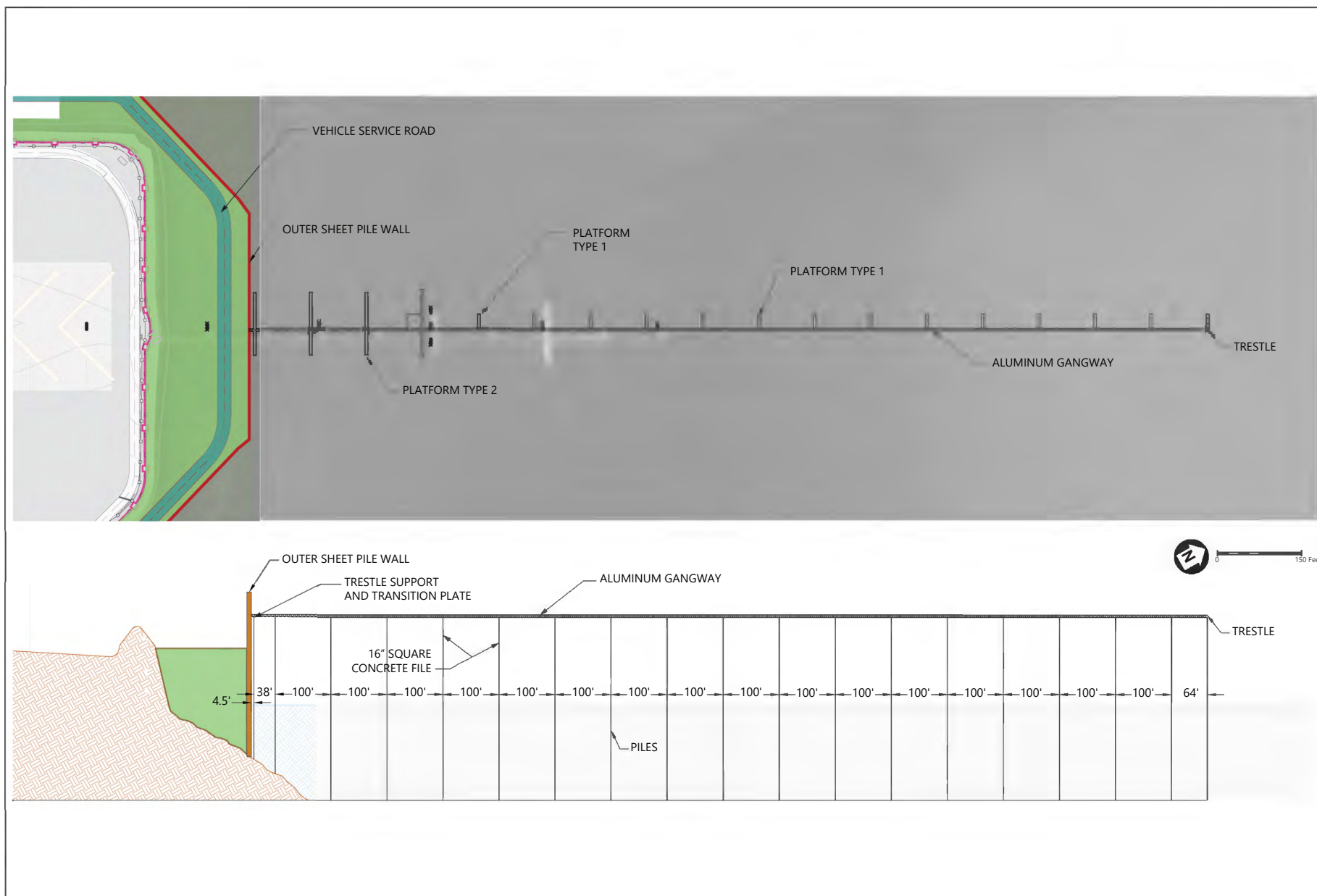
\* PAGE 2-42, FIGURE 2-25

- Figure 2-25 has been revised to show the extended lighting trestle.

<sup>30</sup> *Jet grouting* is a method of soil stabilization that involves the injection of a stabilizing fluid into the subsoil (or the soil under treatment) under high pressure and high velocity. The soil stabilization occurs due to hardening of the grouted fluid within the soil.

<sup>31</sup> A *perimeter dike* is a berm or ridge of soil, compacted, stabilized, and located in such a manner as to direct water to a specified location.

<sup>26a</sup> Parcels 1 and 2; see Volume 55 of the San Mateo County Parcel Maps, page. 79; Real Estate Department, City and County of San Francisco, Easement Exchange Deed, 85018974, February 28, 1985.



SOURCE: Ricondo, 2023

SFO Shoreline Protection Program

**FIGURE 2-25**  
**RUNWAY 19L LIGHTING TRESTLE PLAN AND SECTION**

**\* PAGE 2-70, LAST PARAGRAPH, NEW LAST SENTENCE**

... Construction would begin at Reach 7, proceed with Reach 2, move east toward Reach 6, and conclude at Reach 1. SFO would coordinate with SamTrans during design and construction to minimize disruption to SamTrans' operations.

**\* PAGE 2-75, LAST PARAGRAPH, NEW LAST SENTENCE**

The proposed project is anticipated to be constructed primarily Monday through Friday, although some construction activities may occur on weekends. Construction of Reaches 1–6 and Reach 15 would occur between 7 a.m. and 4 p.m., and nighttime work necessary to construct Reaches 7–14 would occur between 11 p.m. and 6 a.m. The Airport would avoid construction during a.m. peak periods for SamTrans (4 a.m. to 7 a.m.) for Reaches 1 and 2.

## **5.D Revisions to Chapter 3, Plans and Policies**

### **PAGE 3-4, LAST PARAGRAPH**

The proposed project would not change the uses at the project site; therefore, the site would remain consistent with its priority use designation. The proposed project would install a shoreline protection system that would comply with current FEMA flood protection requirements and protect the Airport from future sea-level rise. While the proposed shoreline protection system would require the placement of approximately 26 acres of open water fill in the bay and would impact approximately 3 acres of wetland areas, the proposed project is required to protect against a 100-year flood event and future sea-level rise. Section 2.C, Project Background, p. 2-4, provides a detailed description of the federal, state, and local guidance and requirements that establish the need for the proposed project and how the proposed project is designed to meet these guidelines and requirements. While there is no currently adopted regional airport system study that is applicable to the proposed project, the aforementioned federal, state, and local guidance and requirements establish the need for the proposed project. The proposed project would not expand runway capacity into the bay. The proposed project would be constructed in accordance with applicable design and safety requirements and would not place tall structures or incompatible uses within runway approach and takeoff areas or introduce airspace hazards. The proposed project would not impede or conflict with the completion of the Bay Trail. The proposed project would therefore not conflict with the Bay Plan Map 5 policies identified for SFO.

## **5.E Revisions to Section 4.C, Air Quality**

### **PAGE 4.C-42, MITIGATION MEASURE M-AQ-3A, ITEM 1.A**

- a. All portable engines, such as generators, shall be electric. If grid electricity is not available, alternative power such as, but not limited to, battery storage and hydrogen fuel cells, shall be considered for feasibility before considering propane or natural gas generators shall be used if feasible. Only if these alternative sources of power are not feasible, as determined by the ERO in consultation with SFO, then portable engines shall meet the requirements of 1.c.

#### PAGE 4.C-42, MITIGATION MEASURE M-AQ-3A, ITEM 1.D

- d. Engines shall be fueled with alternative fuels as commercially available and to the maximum extent feasible during each construction phase and activity. This may include renewable diesel, natural gas, propane, hydrogen fuel cell, and electricity.

#### PAGE 4.C-45, MITIGATION MEASURE M-AQ-3C

The project sponsor or the project sponsor's contractor shall use electric shuttles to transport construction workers from the worker parking area(s) to each construction site, including all reaches, the Aviator Lot, and any other construction staging or activity areas. No fossil fuel shuttles shall be permitted. The procurement and use of all electric shuttles shall be documented and submitted to the San Francisco Planning Department for review and approval. The project sponsor shall also incentivize construction workers to carpool, use electric vehicles (EVs), or use public transit to commute to and from the worker parking areas and/or each construction site. This may include the following features: preferential parking for carpool vehicles, vanpool vehicles, and EVs; access to EV charging stations; and discounts on EV charging fees.

#### PAGE 4.C-46, MITIGATION MEASURE M-AQ-3D, NEW ITEM 1.C

- c. All marine vessels shall shut off their main propulsion engines when anchored, tied to shore, or at berth, or not otherwise using their main propulsion engines for maneuvering or transiting.

#### PAGE 4.C-47, MITIGATION MEASURE M-AQ-3E, ITEM 1

1. *Directly fund or implement a specific offset project within the San Francisco Bay Area Air Basin.* Emission reduction projects shall occur in the following locations in order of priority to the extent available: (1) at the airport; (2) off-site within the neighborhood surrounding the project site; (3) within the cities of South San Francisco, San Bruno, or Millbrae; (4) within the County of San Mateo; and (5) within the San Francisco Bay Area Air Basin. The project sponsor shall consider all options available at the Airport (option #1) before implementing off-site projects (options #2 through #5). Any offsite emission reduction projects are subject to the approval by the City. Such projects could include strategies and control measures such as zero-emission trucks, upgrading locomotives with cleaner engines, replacing existing diesel stationary and standby engines with Tier 4 diesel or cleaner engines, or expanding or installing energy storage systems (e.g., batteries, fuel cells) to replace stationary sources of pollution. Prior to implementing the offset project, it must be approved by the planning department, as consistent with the requirements of this mitigation measure.

#### \* PAGE 4.C-62, LAST PARAGRAPH

Health risks due to exposure of the MEIR to TAC emissions associated with Reach 16 would be roughly proportional to health risks associated for the other reaches. Because Reach 16 would add approximately 15,050 feet of flood protection to the 40,500 feet constructed for Reaches 1–15, it is conservatively estimated that Reach 16 would increase health risks at the MEIR by approximately ~~37.38~~ percent (~~55,550~~ 56,050 feet versus 40,500 feet). Applying this percent increase directly to the health risk values of construction of Reaches 1–15 at the MEIR location would result in maximum cancer risks of 4.6 per million (compared to the value of 3.4 per million for Reaches 1–15) and annual average PM<sub>2.5</sub> concentrations of 0.018 µg/m<sup>3</sup> (compared to the value of 0.013 µg/m<sup>3</sup> for Reaches 1–15). ...

## 5.F Revisions to Section 4.D, Biological Resources

### PAGE 4.D-33, MITIGATION MEASURE M-BI-1A, NEW LAST BULLET

- Special-status species and sensitive natural communities detected during surveys or monitoring for the project shall be reported to the California Department of Fish and Wildlife California Natural Diversity Database using the field survey forms found at <https://wildlife.ca.gov/Data/CNDDDB/SubmittingData#4452442-pdf-field-survey-form>.

### PAGE 4.D-36, MITIGATION MEASURE M-BI-1C

**Mitigation Measure M-BI-1c: Avoid and Minimize Impacts to California Ridgway's Rail and California Black Rail.** To minimize or avoid the loss of individual California Ridgway's rail or California black rail within suitable habitat (i.e., Reach 14), construction activities including vegetation management requiring heavy equipment adjacent to tidal marsh areas ~~{within 700 feet (183-213 meters (600 feet))~~ or a distance determined in coordination with the U.S. Fish and Wildlife Service (USFWS) or the California Department of Fish and Wildlife (CDFW)}, shall be avoided during the breeding season: February 1 through August 31.

If areas within or adjacent to rail habitat cannot be avoided during the breeding season, protocol-level surveys shall be conducted to determine rail nesting locations. The surveys shall focus on potential habitat that could be disturbed by construction activities during the breeding season to ensure that rails are not breeding in these locations.

Survey methods for rails shall follow the *Site-Specific Protocol for Monitoring Marsh Birds*, ~~which or methods otherwise determined suitable in consultation with USFWS.~~ The *Site-Specific Protocol for Monitoring Marsh Birds* was developed for use by USFWS and partners to improve bay-wide monitoring accuracy by standardizing surveys and increasing the ability to share data.<sup>32</sup> Surveys are concentrated during the approximate period of peak detectability, January 15 to March 25 and are structured to efficiently sample an area in three rounds of surveys by broadcasting calls of target species during specific periods of each survey round. Call broadcasts increase the probability of detection compared to passive surveys when no call broadcasting is employed. This protocol has since been adopted by Invasive Spartina Project (ISP) and Point Blue Conservation Science to survey California Ridgway's rails at sites throughout San Francisco Bay Estuary. A federal Endangered Species Act section 10(a)(1)(A) permit is required to conduct surveys. The survey protocol for California Ridgway's rail is summarized below.

- Previously used survey locations (points) should be used when available to maintain consistency with past survey results. Adjacent points should be at least 200 meters (656 feet) apart along transects in or adjacent to areas representative of the marsh. Points should be located to minimize disturbances to marsh vegetation. Up to eight points can be located on a transect.
- At each transect, three surveys (rounds) are to be conducted, with the first round of surveys initiated between January 15 and February 6, the second round performed February 7 to February 28, and the third round March 1 to March 25. Surveys should be spaced at least one

<sup>32</sup> Wood, J. K., N. Nur, L. Salas, and O. M. W. Richmond, *Site-Specific Protocol for Monitoring Marsh Birds: Don Edwards San Francisco Bay and San Pablo Bay National Wildlife Refuges*, prepared for the U.S. Fish and Wildlife Service, Pacific Southwest Region Refuge Inventory and Monitoring Initiative, Point Blue Conservation Science, Petaluma, CA, 2017.



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week apart and the period between March 25 to April 15 can be used to complete surveys delayed by logistical or weather issues.

- Each point on a transect will be surveyed for 10 minutes each round. A recording of calls available from USFWS is broadcast at each point. The recording consists of 5 minutes of silence, followed by a 30-second recording of California Ridgway's rail vocalizations, followed by 30 seconds of silence, followed by a 30-second recording of California black rail, followed by 3.5 minutes of silence.

If no breeding California Ridgway's rails or California black rails are detected during surveys and the resources agencies concur with the findings, or if their breeding territories can be avoided by ~~600-700~~ feet (~~183-213~~ meters) or by a distance established in coordination with the resources agencies, as explained above, then project activities may proceed at that location.

If protocol surveys determine that breeding California Ridgway's rails or California black rails are present in the project area, the following measures would apply to project activities ~~conducted~~ planned within ~~600-700~~ feet (~~183-213~~ meters) of a call center (i.e., presumed breeding location) during their breeding season (February 1 to August 31):

- Project activities that can disrupt breeding rails shall not occur within 700 feet (213 meters) of an identified calling center. If the intervening distance across a major slough channel or across a substantial barrier between the California Ridgway's rail or California black rail calling center and any activity area is greater than 200 feet, work may proceed at that location within the breeding season only after CDFW approval.
- With CDFW and USFWS approval, the 700-foot (213-meter) buffer distance may be reduced by the approved biologist to allow for Airport operations or project activities such as vehicle transit on the paved road, or other project activities that do not exceed the existing level of disturbance surrounding the project site (such as baseline noise and movements associated with typical Airport operations).
- A USFWS- and CDFW-approved biologist with experience recognizing California Ridgway's rail and California black rail vocalizations shall be on site during construction activities occurring within ~~600-700~~ feet (~~183-213~~ meters) of suitable rail breeding habitat.
- All biologists accessing the tidal marsh shall be trained in California Ridgway's rail and California black rail biology and vocalizations and will be familiar with both species of rail and their nests.
- During approved project activities located within 700 feet (213 meters) of a call center, if a California Ridgway's rail or California black rail vocalizes or flushes within 33 feet (10 meters), it is possible that a nest or young are nearby. If an alarmed bird or nest is detected, work shall be stopped by the approved biologist, and workers shall leave the immediate area carefully and quickly. An alternate route shall be selected that avoids this area, and the location of the sighting will be recorded to inform future activities in the area.
- All crews working in the marsh during rail breeding season shall be trained and supervised by a USFWS- and CDFW-approved rail biologist.
- If any activities are conducted during the rail breeding season in California Ridgway's rail- or California black rail-occupied marshes, biologists shall have maps or GPS locations of the most



current occurrences on the site and shall proceed cautiously and minimize time spent in areas where rails were detected.

- Project activities within or adjacent to California Ridgway's rail or California black rail suitable habitat shall not occur within 2 hours before or after extreme high tides (6.5 feet or above, as measured at the Golden Gate Bridge).
- All personnel walking in the marsh shall be required to limit time spent within 164 feet (50 meters) of an identified California Ridgway's rail or California black rail calling center to half an hour or less.

If a USFWS or CDFW take permit is issued for the project to address potential impacts to California Ridgway's rail or California black rail, the above measures would be superseded by permit conditions.

**\* PAGE 4.D-40, FIRST PARAGRAPH**

Operational activities for the proposed project are unlikely to affect nesting birds, given the existing, baseline levels of human, vehicular, and air traffic disturbance at the Airport, and because the proposed shoreline protection system and extended lighting trestle would not increase levels of disturbance relative to these baseline operations. Birds nesting in these areas are assumed to be habituated to such disturbance. Therefore, operational impacts on nesting birds from human disturbance would be **less than significant**.

**\* PAGE 4.D-40, MITIGATION MEASURE M-BI-1E, ITEM 1**

1. In areas identified as potential roosting habitat during the habitat assessment, any tree work (trimming or removal) shall occur when bats are active, approximately during the periods of March 1 to April 15 and August 15 to October 15, ~~to the extent feasible~~. These dates avoid the bat maternity roosting season and period of winter torpor. However, if work occurs during these dates, the following actions under items 2 through 6 shall be implemented to avoid impacts to bats.

**\* PAGE 4.D-41, LAST PARAGRAPH**

Operational activities from the proposed project are unlikely to indirectly affect roosting bats, given the baseline levels of human and transportation disturbance at the Airport, and because the proposed shoreline protection system and extended lighting trestle would not increase levels of disturbance relative to these baseline operations. Bats roosting in these areas are assumed to be habituated to such disturbance. Therefore, operational impacts on roosting bats from human disturbance would be **less than significant**.

**PAGE 4.D-45, MITIGATION MEASURE M-BI-1F, FOURTH PARAGRAPH**

Dewatering shall be performed in coordination with fish rescue operations as described above. A dewatering plan shall be submitted as part of the Storm Water Pollution Prevention Plan/Water Pollution Control Program, detailing the location of dewatering activities, equipment, and discharge point. Dewatering pump intakes shall be screened to prevent entrainment of fish in accordance with NMFS screening criteria for salmonid fry,<sup>324</sup> for diversions that are less than 40 cubic feet per second (cfs), including the following:

- Perforated plate: screen openings shall not exceed 3/32 inch (2.38 mm), measured in diameter.

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### 5.F. Revisions to Section 4.D, Biological Resources

- Profile bar: screen openings shall not exceed 0.0689 inch (1.75 mm) in width.
- Woven wire: screen openings shall not exceed 3/32 inch (2.38 mm), measured diagonally (e.g., 6–14 mesh).
- Screen material shall provide a minimum of 27% open area. During the dewatering process, a qualified biologist or fish rescue team shall remain onsite to observe the process and remove additional fish, using the rescue procedures described above.

For diversions that are equal to or greater than 40 cfs, the project sponsor shall follow the dewatering guidance provided in Exhibit A, Department of Fish and Game Fish Screening Criteria, June 19, 2000, available at <https://www.noaa.gov/sites/default/files/legacy/document/2020/Oct/07354626804.pdf>.

## PAGE 4.D-47, TABLE 4.D-2

**Table 4.D-2 Potential Effects to Fish at Varying Noise Levels**

Taxa	Sound Level (dB)	Effect	Reference
<b>FISH</b>			
All fish > 2 grams in size	<del>206 peak</del> 187 (SEL)	Acute Barotraumas	Fisheries Hydroacoustic Working Group, 2008
All fish < 2grams	<del>186-183</del> (SEL)	Acute Barotraumas	Fisheries Hydroacoustic Working Group, 2008
<u>All fish</u>	<u>206 peak</u>	<u>Acute Barotraumas</u>	<u>Fisheries Hydroacoustic Working Group, 2008</u>
Salmon, steelhead	150 (RMS)	Avoidance behavior	Halvorsen et al. 2012

NOTES: SEL = sound exposure level; RMS = root-mean-square pressure level

## PAGE 4.D-48, MITIGATION MEASURE M-BI-1G

**Mitigation Measure M-BI-1g: Fish and Marine Mammal Protection during Pile Driving.** Prior to the start of any in-water construction that would require pile driving, the Airport shall prepare a National Marine Fisheries Service (NMFS)-approved and CDFW-approved sound attenuation monitoring plan to protect fish and marine mammals, and the approved plan shall be implemented during construction. ...

## PAGE 4.D-55, MITIGATION MEASURE M-BI-5B

**Mitigation Measure M-BI-5b: Compensation for Fill of Wetlands and Waters.** The Airport shall provide compensatory mitigation for placement of fill associated with installation of new structures in San Francisco Bay at all applicable reaches and fill of the seasonal wetlands in Reach 2B, as further determined by the regulatory agencies with authority over these features during the permitting process.

Compensation may include compensatory mitigation, shoreline improvements or intertidal/subtidal habitat enhancements through removal of chemically treated wood material (e.g., pilings, decking, etc.) by pulling, cutting, or breaking off piles at least 1 foot below mudline or removal of other

unengineered debris (e.g., concrete-filled drums or large pieces of concrete), as well as creation, restoration, or enhancement of wetlands and waters.

As a component of the resource agency permitting process, upon finalizing their wetland and aquatic habitat mitigation strategy, SFO shall prepare a Summary Mitigation Plan that states the project's complete mitigation proposal, describes the annual monitoring approach for on-site habitat elements and includes a map identifying in-water and nearshore project elements. If required by individual permits, the plan will be submitted for review to CDFW, NMFS, USFWS, BCDC and/or the Corps prior to construction. The plan will include comparable monitoring requirements for off-site mitigation sites proposed to be managed by SFO; however, such requirements are not needed for sites that are operated or managed by third parties (e.g., approved mitigation bank lands). Any compensatory mitigation, shoreline improvements, or habitat enhancements must be subject to the restrictions in FAA Airport Circular 150/5200-33B, Hazardous Wildlife Attractants on or Near Airports.

## 5.G Revisions to Section 4.F, Hydrology and Water Quality

### PAGE 4.F-31, LAST PARAGRAPH, THIRD SENTENCE

... Following installation of the sand dike, steel sheet piles would be installed and additional fill would be placed in the bay between the sand dike and the existing shoreline. Under this approach, the sand dike would remain in the bay for the life of the proposed project and would be covered with a layer of rock armor. ...

**5. Draft EIR Revisions**

**5.G. Revisions to Section 4.F, Hydrology and Water Quality**

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# **ATTACHMENT A**

## **Draft EIR Public Hearing Transcript**



# Public Hearing

SAN FRANCISCO PLANNING COMMISSION

HEARING ON AGENDA ITEM 16

CASE NO. 2020-004398ENV

SFO SHORELINE PROTECTION PROGRAM

REPORTER'S TRANSCRIPT OF PROCEEDINGS

Thursday, October 6, 2022

Reported By:

BRIANNA RUDD, CSR NO. 13668

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JAN BROWN & ASSOCIATES

WORLDWIDE DEPOSITION & VIDEOGRAPHY SERVICES

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(415) 981-3498 or (800) 522-7096

1 Thursday, October 6, 2022 - 2:35 p.m.

2 ---oOo---

3 SECRETARY IONIN: Commissioners, that'll place  
4 us on the final item on your agenda today, Item No. 16  
5 for Case No. 2020-004398ENV for the SFO Shoreline  
6 Protection Program. This is a Draft Environmental Impact  
7 Report.

8 Please note that written comments on the Draft  
9 EIR will be accepted at [cpc.sfosppeir@sfgov.org](mailto:cpc.sfosppeir@sfgov.org) or the  
10 Planning Department until 5:00 p.m. on October 17th, 2022.

11 MR. LI: Good afternoon, President Tanner and  
12 members of the commission. Michael Li from the  
13 Environmental Planning Division.

14 This item is a public hearing on the Draft EIR  
15 for San Francisco International Airport's Shoreline  
16 Protection Program. The purpose of today's hearing is to  
17 receive comments on the adequacy, accuracy and  
18 completeness of the Draft EIR pursuant to the California  
19 Environmental Quality Act and Chapter 31 of the San  
20 Francisco Administrative Code.

21 The Draft EIR was published on August 31st,  
22 2022. The comment period began on September 1st, 2022  
23 and will end at 5:00 p.m. on October 17th, 2022.

24 Oh, Jonas, the slides aren't showing on the  
25 screen.



1           SECRETARY IONIN: SF Gov, can we go to the  
2 computer, please.

3           MR. LI: Thank you.

4           The Shoreline Protection Program is an  
5 infrastructure project designed to protect the airport  
6 against flooding and sea-level rise. The project site  
7 consists of seven and a half miles of Bay shoreline  
8 divided into 15 reaches or segments.

9           The Shoreline Protection Program consists of  
10 removing the existing shoreline protection features and  
11 constructing a new shoreline protection system that would  
12 be a combination of reinforced concrete and steel sheet  
13 pile walls. Depending on the specific location along the  
14 shoreline, the height of the wall would range from four  
15 feet to 14 feet.

16          Reach 16, represented by the yellow dashed line  
17 adjacent to Highway 101, is the airport's western  
18 landside boundary. At this time it's unknown whether SFO  
19 would need to construct a wall along Reach 16. That will  
20 depend on whether the Shoreline Protection Program can  
21 connect to shoreline protection systems constructed by  
22 adjacent cities to the north and south of the airport.  
23 Given this uncertainty, the Draft EIR analyzed Reach 16  
24 at a programmatic level while Reaches 1 through 15 were  
25 analyzed at a project level.

1           The Draft EIR concluded that the project's  
2     construction-related air quality impacts would be  
3     significant and unavoidable, even with implementation of  
4     all feasible mitigation measures. But impacts for all  
5     other environmental resource topics would be less than  
6     significant either with or without mitigation.

7           The Draft EIR studied six alternatives to the  
8     proposed project. The alternatives focused on reducing  
9     the project's significant air quality impacts as well as  
10    reducing less than significant impacts related to  
11    biological resources and hydrology and water quality.

12           Comments on the Draft EIR will be accepted until  
13    5:00 p.m. on October 17th, 2022. After the comment  
14    period has ended, the Planning Department will prepare  
15    and publish a Responses to Comments document which will  
16    include responses to all comments received during the  
17    comment period as well as appropriate revisions to the  
18    Draft EIR. Together, the Draft EIR and the Responses to  
19    Comments document constitute the final EIR, which will be  
20    presented to the Planning Commission for certification at  
21    a future hearing.

22           Today's hearing is being transcribed by a court  
23    reporter. I'd like to remind all speakers to please  
24    state your name for the record and speak slowly and  
25    clearly so that the court reporter can produce an

1 accurate transcript of today's proceedings.

2 Written comments can be sent to me, Michael Li,  
3 at the Planning Department, 49 South Van Ness Avenue,  
4 Suite 1400, San Francisco, California 94103 or e-mailed  
5 to cpc.sfosppeir@sfgov.org.

6 Along with David Kim, who is SFO's project  
7 manager, my colleague Tania Sheyner and I will be  
8 available to answer questions. Thank you.

9 COMMISSIONER TANNER: Thank you.

10 SECRETARY IONIN: Okay. Members of the public,  
11 this is your opportunity to comment on the Draft EIR. If  
12 you're in the chambers, please come forward. If you're  
13 calling in, you need to press star, 3. Again, you need  
14 to press star, 3 if you wish to submit your comments if  
15 you're calling in remotely or raise your hand if you're  
16 on WebEx.

17 Seeing no requests to speak, commissioners,  
18 public comment is closed, and this matter is now before  
19 you.

20 COMMISSIONER TANNER: Commissioner Diamond?

21 COMMISSIONER DIAMOND: Thank you.

22 An incredible amount of work, and the EIR was, I  
23 found, fascinating. The division of the work into  
24 reaches made it very understandable. And the  
25 organization was extremely helpful in allowing us, on

A-CPC-Diamond-1



A-CPC-Diamond-1  
(cont.)

1     this major project, to get our arms around the extent of  
2     the work that's required and the importance of the work  
3     that's required.

4             My questions all relate to process.  If you're  
5     able to answer them now, that would be great, but I  
6     understand you're not required to and you might choose to  
7     answer them instead in the Response to Comments document.  
8     But the first one is:  Is our only role, as a commission,  
9     to certify the EIR?  Is there any entitlement that we are  
10    being asked to consider?

11            MR. LI:  The Planning Commission's role in this  
12    process is to review and comment on the Draft EIR and  
13    certify the final EIR.  All project approvals -- well,  
14    the project approvals would go before the Airport  
15    Commission and any appropriate regulatory agencies for  
16    work in the Bay.

17            COMMISSIONER DIAMOND:  Okay.  So then I'm  
18    correct.  My understanding is our only job is review of  
19    the EIR and certification.

20            MR. LI:  That's correct.

21            COMMISSIONER DIAMOND:  I noted that there are  
22    any number of federal, state and regional agencies that  
23    need to grant approvals for this project.  And because a  
24    federal agency was involved, the project is subject to  
25    NEPA.  I didn't see any reference in the document to this

1 being a joint EIR/EIS. Is there a separate EIS being  
2 prepared?

3 MR. LI: Yes. There will be a separate NEPA  
4 document prepared. That is occurring separately from the  
5 CEQA process. This is not a joint NEPA/CEQA document.

6 COMMISSIONER DIAMOND: Okay. Thank you.

7 And the third was, I saw a chart at the  
8 beginning that was very helpful in understanding the  
9 phases of construction. I also saw an explanation of  
10 each of the other agencies that needs to grant approval  
11 and the nature of their approval. But I didn't see  
12 anything that indicated the order of the approvals, you  
13 know, the work of the, like, Airport Land Use Commission  
14 versus BCDC versus State Lands. And I think it would be  
15 helpful, if it's in there and I missed it, to point it  
16 out me, or if you could create a chart that indicates in  
17 what sequence each of these approvals occurs and in what  
18 time frame prior to the commencement of construction.

19 MR. LI: I'd like to check with the city  
20 attorney.

21 Is that something we can respond to today or  
22 should we defer to the Responses and Comments document?

23 MS. JENSEN: This is Deputy City Attorney  
24 Kristen Jensen. And I'm sorry, Commissioner Diamond, but  
25 I was unable to hear your question.

A-CPC-Diamond-2



A-CPC-Diamond-2  
(cont/)

1 COMMISSIONER DIAMOND: Okay. Just give me a  
2 quick -- no small feat for me to take my mask off.

3 MS. JENSEN: Thank you.

4 COMMISSIONER DIAMOND: Let me repeat the  
5 question.

6 So the document did a good job of laying out all  
7 of the agencies -- other agencies that are involved and  
8 the entitlements that are necessary. It also indicated  
9 the sequencing of construction. But I didn't see  
10 anything that indicated the sequencing of approvals, like  
11 where does the Airport Land Use Commission approval occur  
12 relative to BCDCs and State Lands and the Regional Water  
13 Quality Control Board? I think it would be very helpful  
14 to understand the sequence. And I didn't know if it's in  
15 there and I missed it or if you can tell us what it is or  
16 if you want to do that in the Response to Comments  
17 documents.

18 MS. JENSEN: And in response, I believe staff's  
19 question then is whether or not you can include it in the  
20 Response to Comments?

21 MR. LI: Whether we can answer that question now  
22 or if we should defer to the Responses and Comments  
23 document.

24 MS. JENSEN: You can do both. If you have a  
25 ready answer that you can put on the record here, you can



1 certainly do that verbally, but it probably also is  
2 useful to put it in writing in the Response to Comments  
3 document.

4 MR. LI: Okay.

5 At this time, we don't have information about  
6 the specific sequence. A lot of these approvals are  
7 being pursued concurrently. But we will address this in  
8 the Responses to Comments document.

9 COMMISSIONER DIAMOND: Thank you.

10 COMMISSIONER TANNER: Vice President Moore?

11 COMMISSIONER MOORE: I have a question. It's a  
12 technical question.

13 In your description of the different measures  
14 involving shoreline protection, you're speaking about the  
15 use of steel shoring; correct?

16 MR. LI: "Steel shoring," you said?

17 COMMISSIONER MOORE: Yes.

18 MR. LI: Sorry. I'm waiting for the Blue Angels  
19 to pass.

20 Can you clarify your question?

21 COMMISSIONER MOORE: I'm trying to ask -- you're  
22 using steel shoring in the description of parts of your  
23 protection plan. And my question is: The use of steel  
24 and corrosion of steel with saltwater over time, has that  
25 been considered, or is there a specific kind of steel

1       that will resist corrosion?

2           MR. KIM: Vice President Moore, with respect to  
3       the steel sheet piles that will be installed for  
4       shoreline protection, they will be corrosion-resistant,  
5       and there'll be corrosion-resistant coating used for the  
6       steel sheet piles. So that's been taken into account,  
7       especially with the interaction with seawater that it  
8       would be interacting with.

9           COMMISSIONER MOORE: Are there other examples  
10       around the world where that has been tested?

11          MR. KIM: Well, steel sheet piles are very  
12       commonly used for shoreline protection for  
13       infrastructure.

14          COMMISSIONER MOORE: Thank you. That is all.

15          MR. KIM: Thank you.

16          COMMISSIONER TANNER: Great. Thank you.

17          Are there comments from any other commissioners?

18          Okay. Thank you very much, staff, for your  
19       presentation and for your very thorough Draft EIR.

20          SECRETARY IONIN: That concludes our hearing  
21       today.

22          COMMISSIONER TANNER: Okay. We're adjourned.

23          (Whereupon the proceedings adjourned at  
24       2:47 p.m.)

25                               ---oOo---



## 1 REPORTER'S CERTIFICATE

2  
3 I, BRIANNA RUDD, a Shorthand Reporter,  
4 State of California, do hereby certify:

5 That said proceedings were taken before  
6 me at said time and place, and were taken down in  
7 shorthand by me, a Certified Shorthand Reporter of the  
8 State of California, and were thereafter transcribed into  
9 typewriting, and that the foregoing transcript  
10 constitutes a full, true and correct report of said  
11 proceedings that took place.

12 IN WITNESS WHEREOF, I have hereunto  
13 subscribed my hand this 19th day of October, 2022.

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16 \_\_\_\_\_  
Brianna Rudd, CSR NO. 13668  
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## **ATTACHMENT B**

### **Draft EIR Comment Letters and Emails**





**BAY AREA  
AIR QUALITY  
MANAGEMENT**

**DISTRICT**

**ALAMEDA COUNTY**

John J. Bauters  
(Chair)  
Pauline Russo Cutter  
David Haubert  
Nate Miley

**CONTRA COSTA COUNTY**

John Gioia  
David Hudson  
Karen Mitchoff  
Mark Ross

**MARIN COUNTY**

Katie Rice

**NAPA COUNTY**

Brad Wagenknecht

**SAN FRANCISCO COUNTY**

Tyrone Jue  
(SF Mayor's Appointee)  
Myrna Melgar  
Shamann Walton

**SAN MATEO COUNTY**

David J. Canepa  
Carole Groom  
Davina Hurt  
(Vice Chair)

**SANTA CLARA COUNTY**

Margaret Abe-Koga  
Otto Lee  
Sergio Lopez  
Rob Rennie

**SOLANO COUNTY**

Erin Hannigan  
Steve Young

**SONOMA COUNTY**

Teresa Barrett  
(Secretary)  
Lynda Hopkins

Sharon L. Landers  
**INTERIM**

**EXECUTIVE OFFICER/APCO**

Connect with the  
Bay Area Air District:



October 17, 2022

Michael Li, Senior Environmental Planner  
City and County of San Francisco  
49 South Van Ness Ave, Suite 1400  
San Francisco, CA 94103

RE: San Francisco International Airport Shoreline Protection Program (State Clearinghouse No. 2020110456)

Dear Michael Li,

Bay Area Air Quality Management District (Air District) staff has reviewed the San Francisco International Airport's (Airport) proposal to implement the Shoreline Protection Program (Project) to address flood protection and future sea-level rise around the Airport that would comply with current Federal Emergency Management Administration (FEMA) requirements for flood protection. The Airport's shoreline and western landside boundary are divided into 16 "reaches" based on shoreline orientation, existing protection type, and other attributes. The Project would remove the existing shoreline protection features and construct a new shoreline protection system comprised of a combination of reinforced concrete and steel sheet pile walls to eliminate the probability of flooding at the Airport until 2085. The proposed shoreline protection system for Reaches 1–16 would be approximately 55,550 feet (10.5 miles) long, would require the placement of approximately 26 acres of open water fill in the bay along various reaches, and would impact approximately 3 acres of wetland areas. The DEIR Air Quality Chapter concludes that construction-related nitrogen oxides (NOx) emissions are a significant and unavoidable impact despite mitigation measures. Construction-related emissions of NOx, primarily from marine vessels, would exceed the City's California Environmental Quality Act (CEQA) thresholds during the first four years of construction, expected to be 2025 through 2028.

**Air Quality Impacts and Mitigation Measures**

- Mitigation Measure M-AQ-3a (M-AQ-3a): Clean Off-Road Construction Equipment, Subsection 1a states: "All portable engines, such as generators, shall be electric. If grid electricity is not available, propane or natural gas generators shall be used if feasible."
  - The Air District recommends that M-AQ-3a require that if grid electricity is not available, that alternative power be evaluated for feasibility before considering propane and natural gas generators, and editing M-AQ-3a to state that "if grid electricity is not available, alternative power such as but not limited to, battery storage and hydrogen fuel cells shall be considered for feasibility before consideration of propane and natural gas generators. Only if no other options

**A-BAAQMD-1**



are available, Final Tier 4 generators or generators using Best Available Control Technology (BACT) that meets CARB's Final Tier 4 emission standards shall be used with renewable diesel fuel.”

A-BAAQMD-1  
(cont.)

- Mitigation Measure M-AQ-3b: Clean On-Road Trucks Subsection 1a states: “All on-road heavy-duty diesel trucks with a gross vehicle weight rating of 19,500 pounds or greater used at the project site (such as haul trucks, water trucks, dump trucks, concrete trucks, and vendor trucks) shall be model year 2018 or newer.”

A-BAAQMD-2

- The Air District recommends replacing “2018 or newer” truck language with, “Medium and Heavy-Duty diesel on-road vehicles should be no more than eight years old, or powered by zero or near zero-emissions technology, as certified by the California Air Resources Board, whenever feasible.”

- Mitigation Measure M-AQ-3c: Electric Worker Shuttles - The Air District supports the use of electric shuttles to transport construction workers from parking areas to each construction site. The Air District recommends adding language to implement a program that incentivizes construction workers to carpool, use EVs, or use public transit to commute to and from the parking areas and/or each construction site. The program may include the following features, as feasible: providing a shuttle service to and from BART; preferential parking to carpool vehicles, vanpool vehicles, and EVs; and scheduling work shifts to be compatible with the schedules of local transit services.

A-BAAQMD-3

- Mitigation Measure M-AQ-3d: Clean Marine Vessels – The Air District supports the inclusion of language stating that engines will “meet or exceed” U.S. Environmental Protection Agency or California Air Resources Board Tier 4 Marine Engine emission standards. To reduce idling emissions, the Air District recommends that the main propulsion engines be shut off and the provision of shoreside electrical connections, where feasible, to reduce emissions from onboard auxiliary engines when marine vessels are anchored, tied to shore or at berth.

A-BAAQMD-4

- Mitigation Measure M-AQ-3e: Offset Remaining Construction Emissions - The Air District strongly supports the implementation of all available on-site emission reduction measures before relying on off-site measures. This type of “exhaust all options first” language should be added to the introductory paragraph of this measure.

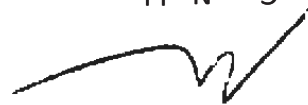
A-BAAQMD-5

### Compliance with Air District Regulations

The Air District enforces local air quality rules and regulations related to construction emissions which are designed to improve public health and air quality. If you have any questions regarding the Air District’s regulations, please visit <https://www.baaqmd.gov/rules-and-compliance> and consult with the Compliance and Enforcement section at (415) 749-4795 or [compliance@baaqmd.gov](mailto:compliance@baaqmd.gov).

Air District staff is available to assist the City to address these comments. If you have any questions please contact Alicia Parker, Principal Environmental Planner, at (628) 207-1466, or [aparker@baaqmd.org](mailto:aparker@baaqmd.org).

Sincerely,



Greg Nudd

Deputy Air Pollution Control Officer

cc: BAAQMD Director Tyrone Jue  
BAAQMD Director Myrna Melgar  
BAAQMD Director Shamann Walton  
BAAQMD Vice Chair Davina Hurt  
BAAQMD Director Carole Groom  
BAAQMD Director David J. Canepa

# A-BCDC San Francisco Bay Conservation and Development Commission

375 Beale Street, Suite 510, San Francisco, California 94105 tel 415 352 3600 fax 888 348 5190  
State of California | Gavin Newsom – Governor | [info@bcdc.ca.gov](mailto:info@bcdc.ca.gov) | [www.bcdc.ca.gov](http://www.bcdc.ca.gov)

October 17, 2022

San Francisco Planning Department  
49 South Van Ness Ave, Suite 1400  
San Francisco, CA 94103  
Attn: Michael Li  
Via Email: <cpc.sfosppeir@sfgov.org>

**SUBJECT: Comments on the San Francisco International Airport Shoreline Protection  
Program Draft EIR (SCH#2020110456); BCDC Inquiry File No. MC.MC. 7415.026**

Dear Mr. Li:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (EIR) for the San Francisco International Airport (SFO) Shoreline Protection Program (Project), received by our office on August 31, 2022. While the San Francisco Bay Conservation and Development Commission (Commission), has not itself reviewed the draft EIR, these staff comments are based on the Commission's law, the McAteer-Petris Act, and the policies of the Commission's *San Francisco Bay Plan*.

The project proposes to install a new shoreline protection system around SFO to comply with current FEMA requirements for flood protection against the 100-year flood and would also incorporate protection from future sea level rise. The majority of the project area is located along the perimeter of SFO in unincorporated San Mateo County, but some portions of the airport lie within the cities of South San Francisco, San Bruno, and Millbrae. The proposed project would remove the existing shoreline protection system and construct a new shoreline protection system that is made up of multiple reaches comprised of a combination of reinforced concrete and steel sheet pile walls that would range in height between 3.9 to 13.5 feet above the existing ground surface. The project consists of approximately 16 planning reaches, differentiated by shoreline orientation, existing protection types, existing foreshore conditions, and existing landside conditions. The proposed project includes the new shoreline protection system across 10.5 miles (55,500 linear feet) of shoreline to eliminate the probability of substantial inundation at SFO through 2085 and is anticipated to require approximately 26 acres of fill in open water of San Francisco Bay and three acres in wetlands.

The proposed project would remove existing shoreline protection consisting of a combination of concrete walls, sheet pile walls, concrete debris, rock armor, sandbags, K-rails, natural tidal flats, embankment walls/dikes, and earthen vegetated berms. The new proposed shoreline protection would consist of reinforced concrete, steel sheet pile walls, soil, and riprap. In the Draft EIR, the City evaluated the following project alternatives for the Shoreline Protection Program and achieving the project goals:





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1. Alternative A – No Project
2. Alternative B – Reaches 7 and 8 extended construction duration, which would increase the construction time for Reach 7 from three years to six years and for Reach 8 from one year and six months to two years and six months by reducing the use of marine construction equipment.
3. Alternative C – No vehicle service road relocation for Reaches 7, 8, 11, 13, and 14, which would not include moving the new vehicle service road out onto Bay fill in these reaches and reduce open water fill by approximately 11 acres.
4. Alternative D – Less barge/more truck construction scenario, which include using less marine barge equipment for construction activities in Reaches 7, 8, and 9, except for during dredging and disposal activities and transporting materials to the staging area.
5. Alternative E – Reach 7 lower wall height, which includes building the wall in Reach 7 on the existing berm and to a height of 6.5 feet NAVD88 rather than 13.5 feet NAVD88. This would reduce the amount of Bay fill by approximately 11 acres.
6. Alternative F – Minimize wetland fill, which included minimizing wetland fill at Reach 2 by constructing the new 26-foot-wide roadway for construction activities, but not include a newly graded ground surface for a construction staging area and reduced impacts on seasonal wetlands by 1.19 acres and still involve the same impacts to tidal wetlands (0.02 acres). This would not allow the area to be used for construction staging and would divert trucks to another staging area on the site.

The preferred alternative selected in the DEIR was Alternative B because it lessens the significant impact associated with construction-related NOx emissions while meeting most of the project objectives, however this alternative will still result in a significant and unavoidable impact associate with NOx emissions.

The Commission is a responsible agency for this project and will rely on the Final EIR when it considers the project. We have prepared comments outlining specific BCDC issues that should be addressed either in the Final EIR or through the BCDC permitting process. Once we receive more details on the project, we will be able to provide more detailed responses, and can work closely with the SFO to ensure the project is consistent with the Commission's law and policies. Although the Commission itself has not reviewed the Draft EIR, the staff comments are based on the McAteer-Petris Act and the Commission's San Francisco Bay Plan (Bay Plan).

### Commission Jurisdiction

From reviewing the Draft EIR, it appears that a portion of the proposed project would be located within the Commission's jurisdiction. The Commission's jurisdiction includes both the Bay itself and the "shoreline band." The shoreline band extends 100 feet inland from and parallel to the Bay shoreline, that shoreline being defined as all tidal areas of the Bay up to the line of mean high tide, or where there is tidal marsh, all areas five feet above mean sea level. Within its jurisdiction, Commission permits are required for activities including the placement of

A-BCDC-1



fill, substantial changes in use, and dredging/extraction of materials. The proposed project would require a permit from the Commission. Permits are issued if the Commission finds the activities to be consistent with the McAteer-Petris Act and the policies of the Bay Plan.

Although, the DEIR does not contain maps identifying the Commission's exact jurisdiction areas of the proposed project, it does mention that work would occur both within the Bay and shoreline band jurisdictions. With greater detail on the exact jurisdiction and impacts, the Staff will be able to work closely with SFO during the permitting to ensure that the project is consistent with the Commission's laws and policies. The Final DEIR should provide a detailed and complete project description, clarify where the proposed project would occur within the Commission's Bay and 100-foot shoreline band jurisdictions.

#### Airport Priority Use Area

Section 66602 of the McAteer-Petris Act (MPA) states, in part, that certain water-oriented land uses along the bay shoreline are essential to the public welfare of the Bay Area, and that these uses include airports, wildlife refuges, water-oriented recreation and public assembly, and, as such, the San Francisco Bay Plan should make provision for adequate and suitable locations for all these uses. In Section 66611, the Legislature declares "that the Commission shall adopt and file with the Governor and the Legislature a resolution fixing and establishing within the shoreline band the boundaries of the water-oriented priority land uses, as referred to in Section 66602," and that "the Commission may change such boundaries in the manner provided by Section 66652 for San Francisco Bay Plan maps." The San Francisco International Airport is located in an Airport Priority Use Area as identified by Bay Plan Map 5. The DEIR includes a short analysis of the Priority Use Area on page 3-4 but does not address how the additional Bay fill for the proposed project, which may be considered expansion into the Bay, is consistent with a clear need identified by a regional airport system study. Please further address this in this section. Additionally, the proposed project will be subject to the Bay Plan policies on Airports, which includes policies consistent with the map policies mentioned on page 3-4 of the DEIR.

#### COMMISSION LAW AND BAY PLAN POLICIES RELEVANT TO THE PROJECT

##### Bay Fill

Section 66605 of the MPA sets forth the criteria necessary to authorize placing fill in the Bay and certain waterways. It states, among other things, that further filling of the Bay should only be authorized if it is the minimum necessary to achieve the purpose of the fill, if the public benefits of the fill clearly exceed the public detriments of the fill from the loss of water area, if harmful effects associated with its placement are minimized, and if the fill is placed according to sound safety standards for geologic or soil conditions and against flood or storm waters. According to the MPA, fill should be limited to water-oriented or minor fill for improving shoreline appearance or public access and should be authorized only when no alternative upland location is available for such purpose. The DEIR anticipates that the proposed project will include installation of an approximately 55,500-foot-long (approximately 10.5 miles) new

A-BCDC-1  
(cont.)

A-BCDC-2

A-BCDC-3

A-BCDC-3  
 (cont.)

shoreline protection system, which would require approximately 26 acres of solid fill (sheetpile walls, soil, riprap, etc.) in the open Bay for various reaches and result in approximately three acres of fill and impacts to wetlands.

The DEIR included six alternatives that were evaluated. However, it does not appear that the DEIR included an analysis of alternative upland locates for the fill proposed out in the Bay and there was not an inclusion of an alternative assessing the feasibility of nature-based shoreline protection, please see the Shoreline Protection section below for more information on this.

Additionally, there are a number of issues related to the proposed Bay fill that should be further explained in the Final EIR, including the following:

1. It does appear that some of the alternatives, such as Alternatives C, would result in less fill in the Bay and still achieve many of the project goals, but it is not exactly clear from the DEIR why the new service roadway needs to be moved out into the Bay. Please also further explain the need for the 12-foot-shoulder and evaluate whether a smaller shoulder could achieve the same need. The DEIR mentions that the current roadway doesn't meet current FAA requirements but does not clearly provide the reason why.
2. Please provide further justification for the need to move the new service roadway to the proposed location and evaluate whether the roadway could be located elsewhere or be smaller in size to reduce the amount of Bay fill, especially in Reaches 7 and 8.
3. Additionally, please provide more detail and justification on the specific need for fill to maintain critical airspace surfaces and how the proposed shoreline protection heights make any Bay fill necessary, especially in Reaches 7 and 8 (see page 2-35).
4. It is not clear why the existing vehicle service road does not meet the FAA taxiway and taxilane object-free area standards, and how moving the service road out onto fill in the Bay would solve this issue. Please further explain this in the DEIR.
5. It is not clear why the shoreline protection system in all reaches is being constructed Bayward of the existing protection rather than in the same location or upland of the current system.

#### Public Access and Recreation

Section 66602 of the McAteer-Petris Act states, in part, "that maximum feasible public access, consistent with a proposed project, should be provided." BCDC's determination of maximum feasible public access consistent with the project will require a better understanding of the public access and any closures proposed as part the project. Depending on the impact to existing or future public access from the proposed project, maximum feasible public access may be required to be incorporated into the project. We understand that a majority of the shoreline around SFO is currently closed to public access. If public access is not feasible on the project site, then in lieu public access may be required as part of the maximum feasible public access consistent with the project. The Final EIR should evaluate whether new public access is feasible

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(cont.)

with the proposed project or provide information on why this is not feasible. Additionally, the analysis should include potential alternatives that might be considered, including in lieu options.

The DEIR on page 3-10 mentions that the Bay Trail runs on the coastline north and south of SFO and that there is public access along Reach 1, which includes some potential fishing. The DEIR mentions that there will be temporary closure of the Bay Trail along Reach 1 during construction activities. The closure is estimated to occur along 1,000 linear feet of Reach 1 and will be closed for a period of five months. The DEIR mentions that the trail will be temporarily relocated to a closed lane on the North Access Road. Please include information on whether this detour will allow for the fishing opportunities to remain open or not during the construction activities. In order to fully evaluate the public access impacts and any proposed alternative routes or compensation for public access closures, the Final DEIR should include more detailed information on this.

A-BCDC-5

A-BCDC-6

#### Biological Resources

Protection of biological resources, including wildlife and habitat, is addressed through several sections of the Bay Plan. Fish, Other Aquatic Organisms, and Wildlife Policy No. 1 states “To assure the benefits of fish, other aquatic organisms and wildlife for future generations, to the greatest extent feasible, the Bay’s tidal marshes, tidal flats, and subtidal habitat should be conserved, restored and increased.” Furthermore, Tidal Marshes and Tidal Flats Policy No. 2 states that “Any proposed fill, diking, or dredging project should be thoroughly evaluated to determine the effect of the project on tidal marshes and tidal flats, and designed to minimize, and if feasible, avoid any harmful effects.” Additional policies in these Bay Plan sections, and policies in the Subtidal Areas section, provide further requirements on protection of the Bay’s natural resources.

Furthermore, Section 4.D.3 of the DEIR discusses the regulatory framework regarding biological resources. Page 4.0-27 identifies BCDC as a state regulatory entity with respect to wetlands and other waters and page 4.0-30 discusses policies of the Bay Plan applicable to wildlife, but these portions of DEIR discussion do not address the Bay Plan Mitigation Policies. The proposed project is anticipated to have approximately 26 acres of open water habitat impacts and three acres of tidal wetland impacts. These permanent impacts will need to be mitigated. Please see the mitigation policy discussion below.

The DEIR describes a number of methods that will be used to minimize direct impacts to species present near the project site, their habitat, and water quality. Please note that some of the proposed construction methods themselves may also lead to some temporary impacts or even take of listed species, such as dewatering and pumping activities, that may also require mitigation. Such mitigation should also be discussed in the DEIR.



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## Mitigation

### State Plans and Policies

Section 3.B.2 of the DEIR discusses State Plans and Policies, including BCDC and the Bay Plan on pages 3-3 to 3-7. This section states, “the following general policies of the Bay Plan would apply to the proposed project” and then identifies Shoreline Protection Policies 1, 2, 3, 4, and 6. This section then briefly describes how the proposed project would not conflict with these policies.

However, the Commission applies all relevant Bay Plan policies when considering a proposed project and this section fails to identify other key policies of the Bay Plan applicable to the proposed project, notably Mitigation Policies 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10. Therefore, the determination on page 4 of the Initial Study that Impact LU-2 would be less than significant is not yet justified.<sup>1</sup> While BCDC staff does not have a position at this time as to whether or not the proposed project would cause a significant physical environmental impact due to a conflict with Mitigation Policies 1 through 10, by the same token (as will be explained further below), staff believes that the discussion within the DEIR of proposed mitigation for Bay fill impacts caused by the proposed project is too cursory to justify the conclusion reached regarding Impact LU-2.

### Mitigation Measure M-BI-5b

In regard to Impact BI-5<sup>2</sup>, Mitigation Measure M-BI-5b states in relevant part that:

“The Airport shall provide compensatory mitigation for placement of fill associated with installation of new structures in San Francisco Bay at all applicable reaches and fill of the seasonal wetlands in Reach 2B, as further determined by the regulatory agencies with authority over these features during the permitting process. Compensation may include compensatory mitigation, shoreline improvements or intertidal/subtidal habitat enhancements through removal of chemically treated wood material (e.g., pilings, deckings, etc.) by pulling, cutting, or breaking off piles at least 1 foot below mudline or removal of other unengineered debris (e.g., concrete-filled drums or large pieces of concrete), as well as creation, restoration, or enhancement of wetlands and waters.”

<sup>1</sup> Impact LU-2 states: “The proposed project would not cause a significant physical environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)”

<sup>2</sup> Impact BI-5 states: “Construction and operation of the proposed project (Reaches 1–15) could have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means. (Less than Significant with Mitigation)”

The DEIR indicates that the proposed project will result in permanent impacts to 26 acres of open Bay waters and three acres of impacts to Bay tidal wetlands. However, Mitigation Measure M-BI-5b (as well as Mitigation Measure M-BI-5a) is lacking because the project proponent has only cursorily consulted with BCDC regarding its proposal to mitigate for its projected fill of 26 acres of open waters of the Bay and three acres of wetlands. Thus, it is not apparent how the commitments of Mitigation Measure M-BI-5b (or M-BI-5a) will realistically be achieved commensurate with the extent of anticipated project impacts.

Specifically, it is not apparent to BCDC at present how the project proponent can ensure consistency with the requirements of various Bay Plan Mitigation Policies, such as:

1. siting and designing compensatory mitigation projects as close to the impact site as practicable and within a Baywide ecological context (Policy 2);
2. justification of the amount and type of compensatory mitigation based on a clearly identified rationale, including analysis of the probability of success, expected time delay between the impact and functioning of the mitigation site, and type and quality of ecological functions of the proposed mitigation site as compared to the impacted site (Policy 5);
3. preference for resource restoration over creation where practicable, and inclusion of transition zones and buffers (Policy 6);
4. site selection considering factors that will increase likelihood of long-term ecological success such as existing hydrological conditions, soil type, adjacent land uses, and connections to other habitats (Policy 6); and
5. to the extent practicable, provision of mitigation prior to or concurrently with the parts of the project causing adverse impacts (Policy 7).

While the project proponent may commit to achieving all of the requirements of these policies, the project proponent has not consulted with BCDC or otherwise made available for public review sufficient information to adjudge whether it can feasibly achieve these requirements with respect to mitigation for the proposed project's anticipated fill impacts to 26 acres of Bay and three acres of wetlands.

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### CEQA Guidelines

Section 15126.4(a)(1)(B) of the CEQA Guidelines, codified at Title 14 of the California Code of Regulations, states in relevant part:

“The specific details of a mitigation measure, however, may be developed after project approval when it is impractical or infeasible to include those details during the project’s environmental review provided that the agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will be considered, analyzed, and potentially incorporated in the mitigation measure. Compliance with a regulatory permit or other similar process may be identified as mitigation if compliance would result in implementation of measures that would be reasonably expected, based on substantial evidence in the record, to reduce the significant impact to the specified performance standards.”

For the reasons discussed above, the project proponent has not provided substantial evidence to demonstrate the feasibility of Mitigation Measure M-BI-5b (and Mitigation Measure M-BI-5a) to reduce anticipated project impacts to a degree of less than significance as compared to the extent of those impacts.<sup>3</sup>

Furthermore, the DEIR does not address the potential applicability of section 15126.4(a)(1)(D) of the CEQA Guidelines, which states in relevant part:

“If a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be discussed but in less detail than the significant effects of the project as proposed.”

While BCDC staff’s position at this time is not that Mitigation Measure M-BI-5b (or Mitigation Measure M-BI-5a) will necessarily cause any significant effects, the lack of detail and specificity as to how impacts to 26 acres of open water in the Bay and three acres of wetlands can realistically be mitigated through Mitigation Measures M-BI-5a and M-BI-5b does not provide BCDC staff assurance that the mitigation measures will not cause one or more significant effects that should be addressed in the EIR.

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<sup>3</sup> Section 15364 of the CEQA Guidelines defines “Feasible” as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.”

### Suggestions

Considering the comments above, we encourage the City and SFO to look at potential options nearby that may compensate for the project impacts and to then consider other options offsite or out-of-kind and not just the mitigation or minimization of construction related impacts. Additionally, one potential mitigation alternative that staff is aware of that the City and SFO could look into is whether the Port of San Francisco would be interested in having this project contribute funds for removal or remove a portion of Piers 30/32 to restore open water habitat in that area. This could be evaluated as one of the mitigation alternatives considered.

A-BCDC-9  
(cont.)

### Safety of Fills

The Commission appointed the Engineering Criteria Review Board to review, on the basis of available knowledge, all new fills that might be permitted in the Bay Plan, so that no fills would be included upon which construction might be unsafe. Based upon the soil conditions and the complexity of the different designs at each of the different reaches, the Commission staff believes that this project needs to be reviewed by the ECRB. Staff generally recommends that the ECRB review occurs before any applications are submitted so that changes can be incorporated into the early phases of the project design and planning. The project team should contact BCDC staff to discuss setting up an ECRB review.

A-BCDC-10

The expansion of the airport includes offshore flood protection that potentially creates greater hazards to life and property, during normal soil consolidation and earthquakes. Therefore, adequate design measures shall be taken to reduce these potential hazards to acceptable levels. Even if the Bay Plan indicates that a fill may be permissible, no fill or building should be constructed if hazards cannot be overcome adequately for the intended use in accordance with the criteria prescribed by the Engineering Criteria Review Board.

Further, the flood protection structures shall provide adequate measures to prevent damage from sea level rise and storm activity that may occur on fill or near the shoreline over the expected life of a project. Hence, the Commission may approve fill that is needed to provide flood protection for existing projects and uses that meet flood resilience criteria such that the project should either:

- be set back from the edge of the shore so that the project will not be subject to dynamic wave energy,
- be built so the bottom floor level of structures will be above a 100-year flood elevation that takes future sea level rise into account for the expected life of the project,
- be specifically designed to tolerate periodic flooding, or
- employ other effective means of addressing the impacts of future sea level rise and storm activity.



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Rights-of-way for levees or other structures protecting inland areas from tidal flooding should be sufficiently wide on the upland side to allow for future widening or raising to support additional height so that no fill is placed in the Bay. This principle also applies for the raising or widening of other shoreline protection structures as well.

A-BCDC-10  
(cont.)

### Shoreline Protection

The Bay Plan policies on Shoreline Protection require that any new shoreline protection be necessary to prevent flooding or erosion, be appropriate for the site and conditions, be appropriately engineered for flood protection for the expected life of the project and based upon the 100-year that takes into account future sea level rise, be integrated into current or planned adjacent shoreline protection, and avoid and minimize adverse impacts on nearby and adjacent areas. If there are impacts that cannot be avoided or minimized, measures to compensate should be required. Additionally, Policy No. 5 requires that “all shoreline protection projects should evaluate the use of natural and nature-based features such as marsh vegetation, levees with transitional ecotone habitat, mudflats, beaches, and oyster reefs, and should incorporate these features to the greatest extent practicable. Ecosystem benefits, including habitat and water quality improvement, should be considered in determining the amount of fill necessary for the project purpose. Suitability and sustainability of proposed shoreline protection and restoration strategies at the project site should be determined using the best available science on shoreline adaptation and restoration. Airports may be exempt from incorporating natural and nature-based features that could endanger public safety by attracting potentially hazardous wildlife.”

A-BCDC-11

On February 28, 2019, during early coordination, BCDC Regulatory Director, Brad McCrea, recommended SFO to consider a variety of alternatives, including nonstructural methods, in its environmental process under CEQA. As a response to a January 14, 2019 letter to BCDC, he noted that in the absence of a complete CEQA analysis, an application, and/or additional project details, the Commission staff could not agree with the statement made in the letter stating that “for safety reasons, the shoreline protection measures encouraged in the Bay Plan Shoreline Protection Policy 4 are not feasible or appropriate at the airport and that the Project would not be rejected for not including ecosystem enhancements in its design.” The DEIR environmental review process should incorporate information to evaluate how the proposed project would be consistent with the Commission’s shoreline protection policies, including an evaluation of nature-based alternatives. Any public safety issues associated with nature-based alternative should also be evaluated. The DEIR and alternatives analysis currently does not appear to include an assessment of the nature-based methods and the feasibility of these options. Please include an additional project alternative assessing a nature-based alternative and provide additional analysis on why it is not feasible.

Additionally, the DEIR should include an analysis of the potential for wave reflection impacts on nearby areas, potential far field impacts, and how such impacts may be mitigated. BCDC understands that Reach 16 would be constructed if the project does not end up tying into other

A-BCDC-12



A-BCDC-12  
(cont.)

regional shoreline protection projects that are early in their planning phases, such as the shoreline protection project being developed by the San Mateo County Flood Control and Sea Level Rise Resiliency District. We encourage SFO to continue working with the adjacent neighbors to have the projects complement and tie into each other to provide a more collaborative regional solution to sea level rise in this part of the Bay.

A-BCDC-13

The Hydrology and Water Quality Section on HY-1, includes a discussion related to the construction of the shoreline protection in Reaches 7 and 8 potentially requiring the placement of a sand dike prior to the installation of the sheet pile walls to help surcharge some of the young Bay mud and prior to the placement of the fill material that will replace the dredged sediment. However, the methods and sequencing of this construction is not entirely clear. Please clarify this discussion on page 4.F-31 with more detail. Please indicate whether the sand would be removed at some point, or if it would remain in place for the life of the project.

#### A-BCDC-14

### Climate Change

The DEIR mentions on page 3-6 that the sheet pile walls have a lifespan of approximately 60 years and that with some regular maintenance and corrosion-resistant coatings, the lifespan of the walls would extend an additional 25 years for a total lifespan of 85 years. We noted that the DEIR mentions that the proposed project is designed to be resilient through 2085. With an 85-year potential lifespan, it seems appropriate that the climate change and sea level rise analysis in the DEIR should look at what the flooding might look like at 2100 and how the project area could be adapted beyond 2085 if it is not resilient to flooding from sea level rise and a 100-year flood at that time. If or when the project comes before BCDC for a permit, it is likely that a risk assessment detailing the flood risk to the project will be required, including sea level rise scenarios over time up to the end of the century or the end of the project life, using the Ocean Protection Council's State Sea Level Rise Guidance. More information on the Bay Plan Policies regarding sea level rise risk assessments and adaptive management plans can be found in BCDC's [Climate Change Policy Guidance](#).

A-BCDC-15

Section 4.F discusses the Hydrology and Water Quality aspects related to the project and includes a discussion of the future flood risk on the site. This section mentions that the 2018 OPC Sea Level Rise Guidance (2018 Guidance) has projections out to 2080, however the 2018 Guidance contains projections out to 2150. While we recognize that there is more uncertainty associated with the later timeframes, based upon the expected life of the project of 85 years, the DEIR should also look at what occurs at later time periods than 2085, such as at 2100 or 2110, to identify what the flooding may look like and to discuss the process for developing an adaptation plan on how the airport might adapt to higher sea level rise in the future.

A-BCDC-16

The sea level rise analysis included in the DEIR, especially in Section 2.C, is not clear. Please revise and clarify this section. This section of the DEIR mentions the 2018 Guidance, but only really includes an analysis of sea level rise based upon the City's Guidance and does not discuss how this relates to the comparison to a planning scenario under the 2018 Guidance. For clarity,

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(cont.)

please include the analysis also for the 2018 Guidance medium-high probability and high emissions planning scenario and what flooding might look like with the proposed project over time. The DEIR should also include an analysis of other things that can cause flooding, including groundwater rise, wave runup, combined fluvial and tidal flooding, etc. Regardless of whether the DEIR addresses these additional factors, it is likely that they will be required to be addressed in the preapplication phase of this project with BCDC. Additionally, the individual design plans for each reach in Chapter 2 appear to indicate that the sea level rise design elevation is 42 inches of sea level rise, rather than the 66 inches that is mentioned in the text on page 2-6. Please further clarify the difference between what is shown in the project designs and the text on page 2-6.

### Environmental Justice

A-BCDC-17

Please note that Page 3-6 mentions that as a requirement of the BCDC permitting process, equitable and culturally-relevant community outreach and engagement would be conducted for nearby communities and that the proposed project would not conflict with this Shoreline Protection Policy 2. However, please note that this policy is intended to guide the project proponents to conduct such outreach during their planning and design phases of the project and this should not wait entirely until the permitting process. If there has not been meaningfully outreach and community engagement by the time a project applies for permitting, then additional outreach or engagement may be required prior to Commission action, but we encourage SFO and the City to begin this engagement as soon as possible and throughout the project planning. If SFO needs any assistance identifying ways to do meaningful community outreach and engagement, please contact BCDC staff and we can provide guidance and tools to assist with this.

We also encourage the City and SFO to also take a look at the Mitigation Policy 3, which states “[f]or major and appropriate minor projects that require compensatory mitigation, communities surrounding both the project and the compensatory mitigation site should be meaningfully involved in an equitable and culturally-relevant manner. In particular, vulnerable, disadvantaged, and/or underrepresented communities should be involved. This should include consultation with the community in the identification and prioritization of potential projects, and in the monitoring and programming of a mitigation site. If such previous outreach and engagement did not occur, further outreach and engagement should be conducted prior to Commission action.” As any mitigation options are developed for the project, SFO should do community outreach related to any vulnerable, disadvantaged, and/or underrepresented communities located near the project area and those communities that are located near the compensatory mitigation site.

### Dredging and Water Quality

A-BCDC-18

The DEIR indicates that a number of the project alternatives would include a dredging component to the project. It appears that most of the proposed dredging work would occur in Reaches 7 and 8. The DEIR estimates that approximately 147,200 cubic yards of sediment from



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A-BCDC-18  
(cont.)

Reach 7 and 33,800 cubic yards of sediment from Reach 8 would be dredged to a depth of 15 feet below the sediment surface. The DEIR indicates the sediment would be removed from the Bay and the area would be backfilled, but the backfill material for the perimeter dike is not clearly indicated in the DEIR and should be included. It is not clear in the DEIR what the intended disposal or beneficial reuse location is for the sediment dredged from Reaches 7 and 8.

The DEIR contained general language on the testing that is required within San Francisco Bay for unconfined aquatic placement and beneficial reuse and the process for review of the sampling and testing by the Dredged Material Management Office (DMMO) but did not provide any updated information on where the project is at with testing. It is our understanding that although there may have been some prior testing in the area, new testing is required and SFO has been coordinating with the DMMO on this. We understand that the proposed project went before the DMMO in May 2022 and the sampling and analysis plan was approved with some modifications to the plan. However, it is not clear whether the testing has already occurred or not and if SFO has the results. This information would be helpful to add to the DEIR. Sediment testing results will be required during for permitting and prior to the dredging or placement of any dredged sediment as part of the proposed project.

We noted that the dredging will be new work dredging and that all sediment will need to be placed upland and/or at a beneficial reuse site or taken out to the San Francisco Deep Ocean Disposal Site in order to comply with the LTMS program. The Final EIR should also discuss potential placement locations for the dredged sediment, if known.

#### A-BCDC-19

### Airports

The Bay Plan policies on Airports say that in order to minimize the harmful effects of airport expansion into the Bay, a regional airport system plan should be prepared by a regional agency. Airport Policy 2.b states in part that “Expansion of existing general aviation airports should be permitted on Bay fill only if no feasible alternative is available.” It is not clear from the DEIR that there is no feasible alternative available for the expansion into the Bay or the exact reasoning why Alternative C or other alternatives minimizing Bay fill were not selected as the preferred alternative. These alternatives could significantly reduce the amount of Bay fill required for the project.

#### A-BCDC-20

### Public Trust

Section 3.B.2 of the DEIR discusses State Plans and Policies, including the Public Trust. This section states in relevant part that: “The San Francisco Airport Commission will determine the proposed project’s consistency with the Public Trust.” However, because current and former submerged lands and tidelands within the project site may also occur within BCDC’s Bay and shoreline band jurisdictions, at the permitting stage for the proposed project, BCDC consideration of any permit application will require evaluation of consistency with Bay Plan Policies regarding the Public Trust and Filling for Public Trust Uses on Publicly-Owned Property Granted in Trust to a Public Agency by the Legislature.

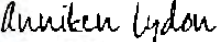


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Thank you for providing the staff with an opportunity to review the Draft DEIR for the SFO Shoreline Protection Program. We look forward to working with you as the project is developed and through the permitting process. If you have any questions regarding this letter or the Commission's policies and permitting process, please do not hesitate to contact me at [anniken.lydon@bcdc.ca.gov](mailto:anniken.lydon@bcdc.ca.gov) or 415-352-3624.

Sincerely,

DocuSigned by:  
  
CA403961512F409...

ANNIKEN LYDON  
Bay Resources Program Manager

AL/gg

cc: State Clearinghouse, [state.clearinghouse@opr.ca.gov](mailto:state.clearinghouse@opr.ca.gov)  
David Kim, San Francisco Airport, [david.t.kim@flysfo.com](mailto:david.t.kim@flysfo.com)  
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## California Department of Transportation

DISTRICT 4  
OFFICE OF REGIONAL AND COMMUNITY PLANNING  
P.O. BOX 23660, MS-10D | OAKLAND, CA 94623-0660  
[www.dot.ca.gov](http://www.dot.ca.gov)



Oct 17, 2022

SCH #: 2020110456  
GTS #: 04-SF-2020-00370  
GTS ID: 21373  
Co/Rt/Pm: SM/101/19.154

Michael Li, Environmental Planner  
City and County of San Francisco  
49 South Van Ness Avenue, Suite 1400  
San Francisco, CA 94103

### Re: SFO Shoreline Protection Program – Draft Environmental Impact Report (DEIR)

Dear Michael Li:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the SFO Shoreline Protection Program. We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated and efficient transportation system. The following comments are based on our review of the August 2022 DEIR.

#### Project Understanding

The proposed project would install a new shoreline protection system and the Airport that would comply with current Federal Emergency management Administration requirements for flood protection against a 100-year flood and would incorporate protection from future sea-level rise. The project site is within vicinity of US-101.

#### Hydrology

The discussion of whether landside protection as part of Reach 16 may be constructed is of particular concern to Caltrans as it could have a direct effect on US-101 and North Access Road, both of which run along the western perimeter of SFO. As stated on pages 2-1, 2-70 and in other sections, the determination of whether or not to construct a low concrete wall, install deployable barriers and raise roadways depends on how, and when, the proposed facilities will connect to anticipated future flood protection measures to be taken by the City of South San Francisco to the north and the Cities of Millbrae and Burlingame to the south. Caltrans looks forward to reviewing plans, if available, as the determination to connect to future flood protection measures to the north and south are made. Caltrans agrees with the comprehensive

A-Caltrans-1

approach to collective flood protection measures taken by the local cities, Federal Emergency Management Agency (FEMA) and the San Mateo County Flood Control District.

A-Caltrans-1  
(cont.)

Sea level rise and associated flooding risks along US-101 in San Mateo County and along State highways, freeways and facilities all around the bay, especially in low lying areas, are of particular concerns to Caltrans. Please include the discussion of the flooding impacts. The impact of the proposed flood protection measures will need to be modeled with the extent of flooding represented on FEMA and San Mateo County flood maps. As stated in previous comments, the effect of flood water sources from upstream (landward) creeks and streams needs to be analyzed as well as flooding from sea level rise to adequately understand flood patterns and design flood protection facilities and upgrade existing facilities.

A-Caltrans-2

Also, any existing Caltrans and local drainage facilities will need to be surveyed, identified, and shown on the plans. Proposed drainage/flooding design changes will need to address any drainage-related conflicts. Caltrans looks forward to reviewing proposed drainage solutions and helping to resolve potential drainage concerns and conflicts.

### **Construction-Related Impacts**

Project work that requires movement of oversized or excessive load vehicles on State roadways requires a transportation permit that is issued by Caltrans. To apply, visit: <https://dot.ca.gov/programs/traffic-operations/transportation-permits>.

A-Caltrans-3

Prior to construction, coordination may be required with Caltrans to develop a Transportation Management Plan (TMP) to reduce construction traffic impacts to the State Transportation Network (STN).

### **Lead Agency**

As the Lead Agency, the City and County of San Francisco is responsible for all project mitigation, including any needed improvements to the STN. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures.

A-Caltrans-4

### **Equitable Access**

If any Caltrans facilities are impacted by the project, those facilities must meet American Disabilities Act (ADA) Standards after project completion. As well, the project must maintain bicycle and pedestrian access during construction. These access considerations support Caltrans' equity mission to provide a safe, sustainable, and equitable transportation network for all users.

A-Caltrans-5

### Encroachment Permit

Please be advised that any permanent work or temporary traffic control that encroaches onto Caltrans' Right-of-Way (ROW) requires a Caltrans-issued encroachment permit. As part of the encroachment permit submittal process, you may be asked by the Office of Encroachment Permits to submit a completed encroachment permit application package, digital set of plans clearly delineating Caltrans' ROW, digital copy of signed, dated and stamped (include stamp expiration date) traffic control plans, this comment letter, your response to the comment letter, and where applicable, the following items: new or amended Maintenance Agreement (MA), approved Design Standard Decision Document (DSDD), approved encroachment exception request, and/or airspace lease agreement. Your application package may be emailed to [D4Permits@dot.ca.gov](mailto:D4Permits@dot.ca.gov).

Please note that Caltrans is in the process of implementing an online, automated, and milestone-based Caltrans Encroachment Permit System (CEPS) to replace the current permit application submittal process with a fully electronic system, including online payments. The new system is expected to be available during 2022. To obtain information about the most current encroachment permit process and to download the permit application, please visit <https://dot.ca.gov/programs/traffic-operations/ep/applications>.

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, or for future notifications and requests for review of new projects, please email [LDR-D4@dot.ca.gov](mailto:LDR-D4@dot.ca.gov).

Sincerely,



MARK LEONG  
District Branch Chief  
Local Development Review

c: State Clearinghouse





State of California – Natural Resources Agency  
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Marine Region  
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**GAVIN NEWSOM, Governor**  
**CHARLTON H. BONHAM, Director**



**A-CDFW**

October 21, 2022

Michael Li  
San Francisco Planning Department  
49 South Van Ness Avenue, Suite 1400  
San Francisco, CA 94103  
[cpc.sfosppeir@sfgov.org](mailto:cpc.sfosppeir@sfgov.org)

Dear Mr. Li:

**San Francisco International Airport Shoreline Protection Program (Project)  
Draft Environmental Impact Report (DEIR)  
SCH# 2020110456**

The California Department of Fish and Wildlife (CDFW) received a DEIR from San Francisco Planning for the Project pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.<sup>1</sup>

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that the CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

**CDFW ROLE**

The CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the state. (Fish & G. Code, Section 711.7, subd. (a) & 1802; Pub. Resources Code, Section 21070; CEQA Guidelines Section 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, Section 1802.) Similarly for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources. CDFW is also responsible for marine biodiversity protection under the Marine Life Protection Act in coastal marine waters of California, and ensuring fisheries are sustainably managed under the Marine Life Management Act.

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<sup>1</sup> CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

CDFW is also submitting comments as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

## **PROJECT DESCRIPTION SUMMARY**

**Proponent:** San Francisco International Airport (SFO)

**Objective:** SFO is proposing to install a new shoreline protection system around the Airport that would comply with current Federal Emergency Management Administration (FEMA) requirements for flood protection against a 100-year flood and would incorporate protection from future sea-level rise. The proposed project would remove the existing shoreline protection features and construct a new shoreline protection system comprising a combination of reinforced concrete and steel sheet pile walls. These structures would vary from reach to reach (16 reaches along 10.5 miles of shoreline), depending on the existing site characteristics, and would range in height from approximately 3.9 to 13.5 feet above the existing or newly graded ground surface, given that the elevation and slope of the ground varies for each reach.

**Location:** The Project is located within unincorporated San Mateo County approximately 13 miles south of downtown San Francisco and borders South San Francisco to the north, San Bruno to the west, and Millbrae to the south, with San Francisco Bay lining the eastern perimeter of the Project.

**Timeframe:** The Project is anticipated to begin 2025 and continue through 2031.

## **MARINE BIOLOGICAL SIGNIFICANCE**

The San Francisco Bay-Delta is the second largest estuary in the United States and supports numerous aquatic habitats and biological communities. It encompasses 479 square miles, including shallow mudflats. This ecologically significant ecosystem supports both state and federally threatened and endangered species and sustains important commercial and recreational fisheries.

## **STATE AND FEDERALLY LISTED AND COMMERCIAL/RECREATIONALLY IMPORTANT SPECIES**

Protected species under the State and Federal Endangered Species Acts that could

potentially be present near Project activities include:

- Chinook salmon (*Oncorhynchus tshawytscha*), state and federally threatened (Spring-run), state and federally endangered (Winter-run)
- Longfin smelt (*Spirinchus thaleichthys*), state-threatened
- Steelhead (*Oncorhynchus mykiss*), federally-threatened (Central California Coast and Central Valley ESUs)
- Green sturgeon (*Acipenser medirostris*), federally-threatened (southern DPS)
- White sturgeon (*A. transmontanus*; state species of special concern)
- Brown pelican (*Pelecanus occidentalis californicus*), state fully protected
- American peregrine falcon (*Falco peregrinus anatum*), state fully protected
- California Clapper rail (*Rallus obsoletus*), state and federally endangered
- California Black rail (*Laterallus jamaicensis coturniculus*), state threatened

Several species with important commercial and recreational fisheries value that could potentially be impacted by Project activities include:

- Dungeness crab (*Cancer magister*)
- Pacific herring (*Clupea pallasii*)
- Surfperches (*Embiotocidae*)
- California halibut (*Paralichthys californicus*)

## COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the San Francisco Planning Department in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

### I. Project Level Impacts and Other Considerations Reach 7 and 8 Dewatering Activities

**Comment:** The DEIR describes Reaches 7 and 8 as requiring dewatering after installation of the inner and outer sheet piles. Approximately 164,200 cubic yards (~101.77-acre feet) of water will be pumped out of Reach 7 and approximately 79,200 cubic yards (49.09-acre feet) of water will be pumped out of Reach 8. As described in the DEIR, there is potential for special status species to be trapped within the areas needing to be dewatered and there is the potential for take to occur.

Mitigation Measure M-BI-1f: Prevention of Fish Entrapment and Entrainment During Dewatering describes the fish rescue efforts that would be put in place during dewatering activities at Reach 7 and 8. The rescue plan would include actively

A-CDFW-1



capturing and removing stranded fish via a seine or dip net and preservation of any dead fish collected.

A-CDFW-1  
(cont.)

The activities associated with dewatering the area between the sheet pile walls and fish rescue plan would both constitute take if any state listed species were to be entrained, impinged, stranded, or collected within the dewatered areas. Additionally, CDFW has more strict screening criteria (attachment 1) than the National Marine Fisheries Service (NMFS) given the presence of Longfin Smelt. NMFS screening criteria for salmonids is not sufficient to meet the screen opening and approach/sweeping velocities that are necessary to prevent entrainment and impingement of Longfin smelt.

**Recommendation:** CDFW recommends SFO consult with CDFW on potentially obtaining a 2081(b) Incidental Take Permit (ITP) to cover any incidental take of state listed species that may occur from dewatering and fish removal activities.

**Recommendation:** CDFW recommends the final EIR include updated screening criteria to account for the potential presence of Longfin smelt in the dewatered reaches. Additionally, SFO should consult with CDFW prior to constructing screens for the dewatering pumps to ensure the screens meet our screen criteria for Delta smelt, which are the same criteria used for Longfin smelt. CDFW's approval of the screen will require review by CDFW biologists and screen engineers to ensure the screens will meet the required approach and sweeping velocities.

**Recommendation:** CDFW recommends that the fish rescue plan described in Mitigation Measure M-BI-1f be provided to all the permitting agencies as a draft for review and approval prior to the start of construction at Reaches 7 and 8. The fish rescue plan would be included as a minimization and monitoring measure in CDFW's approval of the Project.

## Dredging

**Comment:** The DEIR discusses dredging needed within Reaches 7 and 8 prior to dewatering and sheet pile installation with approximately 147,200 cubic yards being removed in Reach 7 and 33,800 cubic yards removed from Reach 8. However, the DEIR does not describe the methods that would be used to dredge each reach and whether a clamshell or suction dredge would be used or considered. The methods used to complete the dredging at each reach is important and would determine whether CDFW may need to exercise its regulatory authority on this Project activity. Suction dredging has been shown to entrain and impinge state listed species within San Francisco Bay and would necessitate consultation with CDFW on take coverage to operate in waters of the state.

A-CDFW-2

**Recommendation:** CDFW recommends Mitigation Measure M-HY-1a: In-Water Construction Water Quality Management Plan, include that only mechanical

dredging will be used during the Project. If suction dredging is being considered, it should be specifically identified, and avoidance and minimization measures included, in the dredging discussion of the final EIR.

A-CDFW-2  
(cont.)

**Recommendation:** CDFW recommends SFO consult with CDFW on potentially obtaining a 2081(b) Incidental Take Permit (ITP) to cover any incidental take of state listed species that may occur from suction dredging if it is determined to be a method of dredging Reaches 7 and 8.

### Pile Driving and Removal

**Comment:** The proposed Project would involve a substantial amount of pile driving over the duration of the Project. Pile driving and pile removal would occur throughout the 10.5 miles of shoreline within the Project footprint and would consist of vibratory and impact hammering.

A-CDFW-3

The underwater sound minimizations measures proposed which include a soft start, use of a bubble curtain, use of vibratory hammer, and conducting pile driving and pile removal during the CDFW and NMFS approved in-water work window of June 1 through November 30, are generally consistent with CDFW recommendations. However, given the extent of the geographical area that will be impacted by underwater sound created by pile driving and the duration of the proposed Project, potential impacts to sensitive aquatic species may be unavoidable. Additionally, the approved in-water work window is protective of salmonids and Pacific herring, but it is not protective of Longfin smelt which would be expected to be present near the Project area in higher densities during the summer and fall months.

**Recommendation:** CDFW recommends SFO consult with CDFW on potentially obtaining a 2081(b) Incidental Take Permit (ITP) to cover any incidental take of state listed species that may occur from pile driving and removal activities.

**Recommendation:** CDFW recommends including CDFW in the final EIR as a reviewing and consulting agency for the sound attenuation monitoring plan described in Mitigation Measure M-BI-1g: Fish and Marine Mammal Protection during Pile Driving. The sound attenuation monitoring plan would be a condition of approval for any CDFW authorization issued for the Project.

### Aquatic Habitat Loss

**Comment:** Within the DEIR, the construction of the shoreline protection system is described as placing fill in approximately 26 acres of San Francisco Bay. Although not fully described within each reach, the aquatic habitat that will be lost due to the Project is confirmed or potential habitat for numerous state and federally listed species as well as commercially and recreationally important species.

A-CDFW-4

The loss of habitat for state listed species is an impact that CDFW would consider take. CDFW may need to exercise regulatory authority over the Project due to the potential loss of state listed species habitat and to ensure that the loss of habitat is fully mitigated for and minimized to the maximum extent possible. Additionally, the loss of habitat for commercial and recreationally important species should be minimized and mitigated for to offset the Project's impacts.

A-CDFW-4  
(cont.)

**Recommendation:** CDFW recommends SFO consult with CDFW on potentially obtaining a 2081(b) Incidental Take Permit (ITP) to cover any incidental take of state listed species that may occur due to the loss of habitat from Project activities.

**Recommendation:** CDFW recommends the final DEIR provide additional detail on how the Project will offset the potential loss of habitat to aquatic species beyond those listed in Mitigation Measure M-BI-5b.

### California Clapper Rail/California Black Rail

**Comment:** The DEIR has identified a moderate potential for California black rail to occur in the Project area and has determined that California clapper rail is present within the Project. California clapper rail, also known as Ridgway's Rail (CCR), is a State and federally endangered species. The California black rail (CBR) is a State threatened species. Both are fully protected species under Fish and Game Code section 3511. CDFW cannot authorize incidental take of a fully protected species except for necessary scientific research and recovery efforts. CDFW is concerned that Mitigation Measure M-BI-1c does not fully avoid impacts to CCR and CBR. The mitigation measure limits construction activities within 600 feet of suitable habitat during CCR and CBR breeding season. This distance may not be sufficient to avoid disruption of rail breeding activity. Nesting rails are sensitive to noise and visual disturbance up to approximately 700 feet<sup>2</sup> from the disturbance source, which can cause nest abandonment and juvenile mortality.

A-CDFW-5

**Recommendation:** CDFW recommends the following additions and changes to Mitigation Measure M-BI-1c.

- Mitigation Measure 1: CCR/CBR Avoidance Buffers - Project activities that can disrupt breeding rails shall not occur within 700 feet of an identified calling center. If the intervening distance across a major slough channel or across a substantial barrier between the CCR/CBR calling center and any activity area is greater than 200 feet, work may proceed at that location within the breeding season only after CDFW approval.
- Mitigation Measure 2: CCR/CBR High Tide Restriction - Project activities within or adjacent to CCR/CBR suitable habitat shall not occur within 2 hours before or after extreme high tides (6.5 feet or above, as measured at the

<sup>2</sup> A 700-foot no-disturbance buffer is based on the average home range of nesting rails (Albertson 1995).



Golden Gate Bridge). This is when the marsh plain is inundated and protective cover for CCR/CBR is limited.

A-CDFW-5  
(cont.)

## Monitoring and Mitigation

**Comment:** The DEIR discusses compensatory mitigation for the potential impacts to multiple types of habitat and species within Mitigation measure M-BI-5b: Compensation for Fill of Wetlands and Waters. The mitigation measure describes the mitigation as being shoreline improvements, habitat enhancement, removal of contaminated materials from San Francisco Bay, and restoration efforts. The mitigation measure also describes the restoration or enhancement would be subject to the restrictions of FAA Airport Circular 150/5200-33B, Hazardous Wildlife Attractants on or Near Airports.

A-CDFW-6

The types of actions described in the mitigation measure would be consistent with CDFW recommendations for mitigation options. However, the measure is lacking necessary detail to determine whether the types of mitigation activities would be sufficient to fully offset potential impacts. Additionally, a 1:1 ratio mentioned in Mitigation Measure M-BI-5a: Avoidance of Impacts on Wetlands and Waters may not be sufficient depending on the type of mitigation that may be proposed to offset the Project's impacts.

**Recommendation:** CDFW recommends a mitigation plan be drafted and added as an additional mitigation measure for the Project in the final EIR. The Plan should include the Project's complete mitigation proposal, description of monitoring efforts, and a habitat assessment that includes a map identifying in water and nearshore Project impacts such as dredge, fill, and pile driving. CDFW understands that at this point in the Project planning the level of detail needed to determine exact mitigation amounts or options may be difficult. Drafting a mitigation plan and providing the plan to all the permitting agencies for review and approval prior to construction would provide a concise description of the complete mitigation proposal and how impacts would be monitored to determine whether Project impacts are offset by the overall mitigation package.

Additionally, a CDFW approval of the Project, specifically for take of state listed species, would require the impacts, and take to be fully mitigated. At the time of an application for an ITP, the mitigation package to offset potential impacts from pile driving, dewatering, dredging, and fill of 26 acres of open water habitat would need to be fully described and agreed upon. Through early consultation and the creation of the mitigation plan, the details of an acceptable mitigation package to fully mitigate the potential take of state listed species can be determined.

**Recommendation:** CDFW recommends that Mitigation Measure M-BI-5b include the option of purchasing habitat credits from an approved mitigation bank. To offset

any potential impacts to Longfin smelt, CDFW would recommend that purchasing habitat credits be one part of a mitigation package that is presented.

A-CDFW-6  
(cont.)

**Recommendation:** CDFW recommends providing a description of FAA Airport Circular 150/5200-33B, Hazardous Wildlife Attractants on or Near Airports in the final EIR. Describing this code would be beneficial when discussing potential mitigation options as it will determine what impacts could be mitigated in-kind or where out-of-kind mitigation may be necessary.

## II. Editorial Comments and/or Suggestions

**Comment:** Table 4.D-2 incorrectly states the accumulated sound exposure level (SEL) for fish less than 2 grams as 186 decibels. The SEL should be changed to 183 decibels to be consistent with the Fisheries Hydroacoustic Working Group, *Agreement in Principle for Interim Criteria for Injury to Fish from Pile Driving Activities* referenced within the table.

A-CDFW-7

**Location in Document:** Page 4.D-47, Table 4.D-2, row 2, column 2.

## ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a data base which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be found at the following link: <https://wildlife.ca.gov/Data/CNDDDB/SubmittingData#44524420-pdf-field-survey-form>. The completed form can be mailed electronically to CNDDDB at the following email address: [CNDDDB@wildlife.ca.gov](mailto:CNDDDB@wildlife.ca.gov). The types of information reported to CNDDDB can be found at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

A-CDFW-8

## FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by the CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

A-CDFW-9

## CONCLUSION

The CDFW appreciates the opportunity to comment on the DEIR to assist San Francisco Planning in identifying and mitigating Project impacts on biological resources.



Michael Li  
San Francisco Planning  
October 21, 2022  
Page 9

Questions regarding this letter or further coordination for Marine Region should be directed to Arn Aarreberg, Environmental Scientist, at (707)791-4195 or [Arn.Aarreberg@wildlife.ca.gov](mailto:Arn.Aarreberg@wildlife.ca.gov). Questions for the Bay-Delta Region should be directed to Will Kanz, Environmental Scientist, at (707) 337-1187 or [Will.Kanz@wildlife.ca.gov](mailto:Will.Kanz@wildlife.ca.gov).

Sincerely,



Becky Ota,  
Habitat Conservation Program Manager  
Marine Region

## ATTACHMENTS

1. CDFW Fish Screening Criteria

ec: Becky Ota, Program Manager  
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Regional Water Quality Control Board  
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State Clearinghouse (SCH No. 2020110456)  
[State.clearinghouse@opr.ca.gov](mailto:State.clearinghouse@opr.ca.gov)

## REFERENCES

- Albertson, J.D. 1995. Ecology of the California clapper rail in the south San Francisco Bay. Thesis. San Francisco State University, San Francisco, California, USA.
- California Department of Fish and Wildlife. 2022. Biogeographic Information and Observation System (BIOS).
- Wood, Julian. 2014. Secretive Marsh Bird Survey Protocol Comparison in San Francisco Bay. [12369\\_JulianWood2014.pdf \(prbo.org\)](#)
- Wood, Julian; et. al. 2017. USFWS Site-Specific Protocol for Monitoring Marsh Birds. <https://ecos.fws.gov/ServCat/DownloadFile/110223>

**EXHIBIT A**  
**DEPARTMENT OF FISH AND GAME**  
**FISH SCREENING CRITERIA**  
**June 19, 2000**

**1. STRUCTURE PLACEMENT**

**A. Streams And Rivers (flowing water):** The screen face shall be parallel to the flow and adjacent bankline (water's edge), with the screen face at or streamward of a line defined by the annual low-flow water's edge.

The upstream and downstream transitions to the screen structure shall be designed and constructed to match the bankline, minimizing eddies upstream of, in front of, and downstream of, the screen.

Where feasible, this "on-stream" fish screen structure placement is preferred by the California Department of Fish and Game.

**B. In Canals (flowing water):** The screen structure shall be located as close to the river source as practical, in an effort to minimize the approach channel length and the fish return bypass length. This "in canal" fish screen location shall only be used where an "on-stream" screen design is not feasible. This situation is most common at existing diversion dams with headgate structures.

The National Marine Fisheries Service - Southwest Region "Fish Screening Criteria for Anadromous Salmonids, January 1997" shall be used for these types of installations.

**C. Small Pumped Diversions:** Small pumped diversions (less than 40 cubic-feet per second) which are screened using "manufactured, self-contained" screens shall conform to the National Marine Fisheries Service - Southwest Region "Fish Screening Criteria for Anadromous Salmonids, January 1997."

**D. Non-Flowing Waters (tidal areas, lakes and reservoirs):** The preferred location for the diversion intake structure shall be offshore, in deep water, to minimize fish contact with the diversion. Other configurations will be considered as exceptions to the screening criteria as described in Section 5.F. below.

**2. APPROACH VELOCITY (Local velocity component perpendicular to the screen face)**

**A. Flow Uniformity:** The design of the screen shall distribute the approach velocity uniformly across the face of the screen. Provisions shall be made in the design of the screen to allow for adjustment of flow patterns. The intent is to ensure uniform flow distribution through the entire face of the screen as it is constructed and operated.

**B. Self-Cleaning Screens:<sup>1</sup>**

The U.S. Fish and Wildlife Service has selected a 0.2 feet per second approach velocity for use in waters where the Delta smelt is found. Thus, fish screens in the Sacramento-San Joaquin Delta and San Francisco Estuary should use this criterion for design purposes. In addition:

1. Streams and Rivers (flowing waters) - exposure to the fish screen shall not exceed fifteen minutes.

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<sup>1</sup> Approach velocities in the June 19, 2000 Fish Screening Criteria that are inapplicable if delta smelt are present are omitted.

**EXHIBIT A**  
**DEPARTMENT OF FISH AND GAME**  
**FISH SCREENING CRITERIA**  
**June 19, 2000**

2. In Canals (flowing waters) - a bypass entrance shall be located every one-minute of travel time along the screen face.

3. Non-Flowing Waters (tidal areas, lakes and reservoirs) - The specific screen approach velocity shall be determined for each installation, based on the delta smelt life stage being protected. Velocities which exceed those described above will require a variance to these criteria (see Section 5.F. below).

**C. Screens Which Are Not Self-Cleaning:** The screens shall be designed with an approach velocity one-fourth that outlined in Section B. above. The screen shall be cleaned before the approach velocity exceeds the criteria described in Section B.

**D. Frequency Of Cleaning:** Fish screens shall be cleaned as frequently as necessary to prevent flow impedance and violation of the approach velocity criteria. A cleaning cycle once every 5 minutes is deemed to meet this standard.

**E. Screen Area Calculation:** The required wetted screen area (square feet), excluding the area affected by structural components (i.e., pore space or open area), is calculated by dividing the maximum diverted flow (cubic-feet per second) by the allowable approach velocity (feet per second). Example:

**1.0 cubic-feet per second / 0.2 feet per second = 5.0 square feet of pore space**

Unless otherwise specifically agreed to, this calculation shall be done at the minimum stream stage.

**3. SWEEPING VELOCITY (Velocity component parallel to screen face)**

**A. In Streams And Rivers:** The sweeping velocity should be at least two times the allowable approach velocity.

**B. In Canals:** The sweeping velocity shall exceed the allowable approach velocity. Experience has shown that sweeping velocities of 2.0 feet per second (or greater) are preferable.

**C. Design Considerations:** Screen faces shall be designed flush with any adjacent screen bay piers or walls, to allow an unimpeded flow of water parallel to the screen face.

**4. SCREEN OPENINGS**

**A. Porosity:** The screen surface shall have a minimum open area of 27 percent. We recommend the maximum possible open area consistent with the availability of appropriate material, and structural design considerations.

The use of open areas less than 40 percent shall include consideration of increasing the screen surface area, to reduce slot velocities, assisting in both fish protection and screen cleaning.

**B. Round Openings:** Round openings in the screening shall not exceed 3.96mm (5/32in). In waters where steelhead rainbow trout fry are present, this dimension shall not exceed 2.38mm (3/32in).

**C. Square Openings:** Square openings in screening shall not exceed 3.96mm (5/32in) measured diagonally. In waters where steelhead rainbow trout fry are present, this dimension shall not exceed 2.38mm (3/32in) measured diagonally.

**D. Slotted Openings:** Slotted openings shall not exceed 2.38mm (3/32in) in width. In waters where steelhead rainbow trout fry are present, this dimension shall not exceed 1.75mm (0.0689in).

**EXHIBIT A**  
**DEPARTMENT OF FISH AND GAME**  
**FISH SCREENING CRITERIA**  
**June 19, 2000**

**5. SCREEN CONSTRUCTION**

**A. Material Selection:** Screens may be constructed of any rigid material, perforated, woven, or slotted that provides water passage while physically excluding fish. The largest possible screen open area which is consistent with other project requirements should be used. Reducing the screen slot velocity is desirable both to protect fish and to ease cleaning requirements. Care should be taken to avoid the use of materials with sharp edges or projections which could harm fish.

**B. Corrosion and Fouling Protection:** Stainless steel or other corrosion-resistant material is the screen material recommended to reduce clogging due to corrosion. The use of both active and passive corrosion protection systems should be considered. Consideration should be given to anti-fouling material choices, to reduce biological fouling problems. Care should be taken not to use materials deemed deleterious to fish and other wildlife.

**C. Project Review and Approval:** Plans and design calculations, which show that all the applicable screening criteria have been met, shall be provided to the Department before written approval can be granted by the Regional Manager, Bay Delta Region.

The approval shall be documented in writing to the project sponsor, with a copy to the Deputy Director, Resource Management and Policy Division. Such approval may include a requirement for post-construction evaluation, monitoring and reporting.

**D. Assurances:** All fish screens constructed after the effective date of these criteria shall be designed and constructed to satisfy the current criteria. Owners of existing screens, approved by the Department prior to the effective date of these criteria, shall not be required to upgrade their facilities to satisfy the current criteria unless:

1. The controlling screen components deteriorate and require replacement (i.e., change the opening size or opening orientation when the screen panels or rotary drum screen coverings need replacing),
2. Relocation, modification or reconstruction (i.e., a change of screen alignment or an increase in the intake size to satisfy diversion requirements) of the intake facilities, or
3. The owner proposes to increase the rate of diversion which would result in violation of the criteria without additional modifications.

**E. Supplemental Criteria:** Supplemental criteria may be issued by the Department for a project, to accommodate new fish screening technology or to address species-specific or site-specific circumstances.

**F. Variances:** Written variances to these criteria may be granted with the approval of the Regional Manager, Bay Delta Region and concurrence from the Deputy Director, Resource Management and Policy Division. At a minimum, the rationale for the variance must be described and justified in the request. Evaluation and monitoring may be required as a condition of any variance, to ensure that the requested variance does not result in a reduced level of protection for the aquatic resources.

**EXHIBIT A**  
**DEPARTMENT OF FISH AND GAME**  
**FISH SCREENING CRITERIA**

**June 19, 2000**

It is the responsibility of the project sponsor to obtain the most current version of the appropriate fish screen criteria. Project sponsors should contact the Department of Fish and Game and the U.S. Fish and Wildlife Service (for projects in anadromous and fresh waters) for guidance.

Copies of the current criteria are available from the Department of Fish and Game Bay Delta Region; 7329 Silverado Trail/P.O. Box 46, Yountville, CA 94599, (707) 944-5500.

Technical assistance can be obtained directly from the Habitat Conservation Branch; 1416 Ninth Street, Sacramento, CA 95814 - (916) 653-1070.

The National Marine Fisheries Service Southwest Region "Fish Screening Criteria for Anadromous Salmonids, January 1997" is available at: <http://swr.ucsd.edu/hcd/fishscrn.htm> and from their Southwest Region, 777 Sonoma Avenue, Room 325, Santa Rosa, CA 95402 - (707) 575-6050.



# City of Millbrae

621 Magnolia Avenue, Millbrae, CA 94030

October 17, 2022

Via Email:  
Michael Li, EIR Coordinator  
cpc.sfosppeir@sfgov.org

ATTN: San Francisco International Airport Shoreline Protection Program Project Title: Case No.: 2020-004398ENV

***Re: City of Millbrae Comments on San Francisco International Airport Shoreline Protection Program, Environmental Impact Report Environmental Report***

## I. Introduction

The City of Millbrae ("City") submits the following comments on the Draft San Francisco International Airport Shoreline Protection Program. This letter sets forth the City's general comments on the Draft EIR for consideration.

San Francisco International Airport is proposing the Shoreline Protection Program, which would install a new shoreline protection system around the Airport that would comply with current Federal Emergency Management Administration requirements for flood protection against a 100-year flood and would incorporate protection from future sea-level rise. The proposed project would remove the existing shoreline protection features and construct a new shoreline protection system comprised of a combination of reinforced concrete and steel sheet pile walls. These structures would vary from one reach (a segment of shoreline) to another, depending on the existing site characteristics, and would range in height from about 4 feet to about 14 feet above the existing or newly graded ground surface, given that the elevation and slope of the ground varies for each reach.

II. The Draft EIR does not comply with CEQA because it is not an adequate informational document, does not address impacts on residential neighborhoods of the City of Millbrae within the environs of San Francisco International Airport; and fails to adequately study more environmentally sensitive alternatives such as artificial reefs and other sea level rise mitigation technology.

A-Millbrae-1





The California Environmental Quality Act (Public Resources Code §§ 21000 et seq., “CEQA”) and accompanying Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, §§ 15000 et seq.) require an environmental impact report to be an “informational document.” (CEQA Guidelines § 15121.) The purpose of an EIR is to inform public agency decisionmakers and the public generally about the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. “When the informational requirements of CEQA are not complied with, an agency has failed to proceed in ‘a manner required by law’ and has therefore abused its discretion.” (Save our Peninsula Committee v. Monterey County Board of Supervisors (2001) 87 Cal.App.4th 99, 118.) More specifically, if an EIR does not “adequately apprise all interested parties of the true scope of the project for intelligent weighing of the environmental consequences of the project,” it is inadequate as a matter of law. (Communities for a Better Environment v. City of Richmond (2010) 184 Cal.App.4th 70, 82-83.) The Draft EIR is so internally inconsistent, and unfocused on the impacts specifically to the City of Millbrae environs, population displacement, impacts of flooding resulting from the SFO owned and maintained Lomita Canal and Highline Canal as a result of the proposed project that it fails to apprise all interested parties.

Further, the document is lengthy and confusing making it is impossible to locate, as it does not seem to exist, simple impact conclusions or even identify the impacts and mitigation on properties located in the Landing Lane neighborhood, Marina Vista Neighborhood and Bayside Manor Neighborhood within the City of Millbrae. The document lacks clear information or completely ignores the impact, mitigation measures on these neighborhoods that it does not fulfill its purpose as an informational document and does not comply with CEQA.

III. The Draft EIR fails to analyze reasonably foreseeable and cumulative environmental impacts related to development in the environs of SFO including the Millbrae Station Area Specific Plan.

An EIR must “provide sufficient meaningful information regarding the types of activity and environmental effects that are reasonably foreseeable.” (Laurel Heights, supra, 47 Cal.3d at 399). There are two types of foreseeable development near Millbrae Station – development currently anticipated by the Millbrae Station Area Specific Plan (“MSASP”), and development that is reasonably foreseeable given the nature of the Project as a transit project. The Draft EIR does not provide sufficient information about potential environmental effects to this future development near Millbrae Station.

The Draft EIR fails to analyze foreseeable and cumulative development pursuant to the Millbrae Station Area Specific Plan.

1. **The MSASP** - provides for high density, mixed-use development adjacent to the existing BART/Caltrain station. The MSASP was adopted in 1998 and updated in 2016. It locates a transit-oriented development zone (known as “TOD #1”) in the area that the Project



fails to acknowledge. The City has already approved a development project for TOD #1 containing 488 multifamily residential units (including 67 affordable units) and approximately 300,000 square feet of office and retail. The Draft EIR/EIS does not analyze or disclose any potential environmental effects to the TOD #1 project.

A-Millbrae-2  
(cont.)

2. **Aviador Lot, Millbrae** – 2.5 acres to be used as one of the two main staging areas. Later in the DEIR is more detail on how SFO plans to use this location and how a project is underway in Millbrae adjacent to Aviador Lot. This is true and the projects are almost complete, with residents set to move in by the end of 2022. The DEIR goes on to say SFO operations at Aviador Lot won't cause much environmental damage. This is simply not true. There will be extreme wear and tear on brand new roads, you will not be able to run trucks under the hotel on Garden Lane and you will be making the new portion of the Bay Trail, which will run along Aviador extremely dangerous by litter the brand new bike pedestrian pathways full of gravel and dirt. This will damage tires and cause immediate stops for anyone skating on our new portion of the SF Bay Trail. The use of Aviador Lot for heavy construction is dangerous to local residents and everyone using the SF Bay Trail.

A-Millbrae-3

3. **West of Bayshore Site, Millbrae** – 180 acres – IN MILLBRAE and is part of our stormwater drainage system is not mentioned at all. This is the Lomita Canal, not mentioned in the DEIR, at least to the portions I've been able to read by today's deadline. This is the area with the California Garter Snake and the Red Legged Frog. Lomita Canal, required to be maintained by SFO to prevent flooding into Millbrae residential areas, that has been so poorly maintained by SFO that the Airport Park neighborhood flooded three times from October 23, 2021 to December 23, 2021 but is not discussed in the DEIR at all. Should SFO construct Reach 16, one can logically assumed flooding in Millbrae, whose drainage to the bay is blocked by SFO will get worse. The DEIR is inadequate as it does not investigate or mitigate cumulative impacts of rising seas, atmospheric rivers, soil subsidence, and historic lack of maintenance by SFO on Lomita Canal. There is no discussion of how this area connects to Millbrae's pump stations and to the Highline Canal (that is mentioned in Reach 15 but not in terms of water flowing to the Bay).

A-Millbrae-4

4. **Reach 12 to 14** – Each Reach describes the addition of metal walls and the filling of mudflats, it appears so SFO can build more and wider maintenance roads. The discuss the removal of existing rocks which I assume will be hauled over to the Aviador Lot, increasing noise, dirt and damage to roads and loss of sleep to residents. But worse it is filling the Bay. The narrowing of the inlet created by Runways 28 (Reach 13) and along Runway 1 (Reach 14) and Millbrae will get narrower and shallower. This is a FEMA tsunami zone and this action, should an earthquake trigger a tsunami will increase the wave height and strength directly into Millbrae. The fact that Millbrae and Burlingame shorelines have been added to the tsunami risk zone is ignored. Therefore the DEIR is inadequate.

A-Millbrae-5

5. **Nature Based Solutions to Sea Level Rise** - the Summary should include a table with all the proposed bay fill and the impacts to local communities. There is also no discussion of nature based solutions at all. I am well aware that SFO would prefer Millbrae to have no trees as trees to them means birds. And yet SFO has a lovely forest visitors see upon arrival to SFO. Trees also are a nature based way to absorb noise, especially low frequency noise, so the section talking about habitat work, a separate project, that will remove trees and cause no impact is entire wrong and is another reason that reference makes this DEIR inadequate. Each action has a cumulative impact. SFO and San Francisco have expanded constantly by keeping each impact separate, as well as the huge 101 expansions to accommodate SFO. This hasn't hurt the residents of San Francisco, environmentally or financially as San Francisco places the burdens and none of the awards onto the "close in communities" like Millbrae.

SFO has for decades asked to fill the bay and have been told no. Now you claim you need to fill the bay for sea level rise mitigation. When really what you want to do is widen roads, adding more asphalt and inert surfaces which will bounce more noise into Millbrae. This is not discussed as a noise impact at all. And yet your own Noise office will agree that inert surfaces bounce rather than absorb noise. And then you hide the shear amount of bay fill you plan to do by listing the acres to be field reach by reach. In both cases this proves the inadequacy of this DEIR. If SFO proceeds with filling the bay and adding more inert surfaces that must be studied and discussed in the DEIR.

6. **Noise bouncing** – steel plates. In the Noise section, the DEIR only talks about construction related noise claiming that in flight noise will be the same. There is no discussion of noise bouncing and deflecting off the new 9.5' metal walls being built Sound walls bounce sound in several different ways. Easy examples are when freeways put in concrete noise walls and a neighborhood hundreds of yards or miles away now hear traffic sounds. The construction of the Grand Hyatt at SFO with its curved walls collects, concentrates aircraft noise from Runway 28 departures and possibly from Runway 1 departures and sends that noise into Millbrae. This negligence from past SFO expansions can not be replicated in the year 2022 and this DEIR. You need to add an investigation of what ground and inflight noise and vibrations will do when the sound/vibration waves hit the metal walls. So the Noise Section is inadequate for this reason.

The Noise section is also inadequate in stating air traffic won't be counted as it will be same as it currently is, then later in the DEIR site 84 months of runway closures and strong likelihood that adverse weather, reverse flow flights will use Runway 19 to take off over Millbrae and arrive on Runway 1. Runway 19 departures and Runway 1 arrivals are not counted in the CNEL contours, or in any mitigation.

The entire section on insulation is inadequate as it uses CNEL A weighted noise and not C-weighted which includes low frequency noise created by SFO ground operations, jet taxing, run ups, and departure. The FAA only begins to look at noise once a plane is in the air, and not what happens to communities behind and to the sides of runways. The

A-Millbrae-6

A-Millbrae-7

A-Millbrae-8

A-Millbrae-9

A-Millbrae-10

FAA is well aware of this issue as it is one of the major issues brought up by SFORT. There is no discussion of this in the DEIR at all, and then a brush off that reverse flow departures won't be that great but could last for 84 months over the course of almost 10 years.

A-Millbrae-10  
(cont.)

Also absent from this DEIR is acknowledging the 2020 Spectral Analysis study on how low frequency noise moves from SFO and up into the hillsides, where it does not attenuate and in fact concentrates. So how noise will react to think 9.5' tall walls and midnight to 6 am construction work for 10 years will have a much greater impact on people in the "close in communities" and since SFO plans on using Aviator Lot continuously, that that is just one more noise addition to all the existing inputs (arrivals, departures, run-ups, ground transportation, 101, BART, Caltrain. All of these agencies have gotten away with each saying the other creates the ambient noise and then getting to discount and not mitigate for their actions, with the end result a noise hell in Millbrae.

A-Millbrae-11

It is understandable to use 2019 data as the pandemic did have a big impact on the number of flights. Flights are now back to approx.. 85% per SFO at the Oct 4, 2022 SFORT. Now that the Gateway Project is almost complete, those buildings should be used for noise measurements. Had any staff come to this location you would see that the hotel is built over Garden Lane, so the idea of running heavy dirty trucks, spewing gravel underneath sleeping people simply is not going to happen. So your assumptions throughout the DEIR of using Garden Lane are not practicable or acceptable.

7. **Historical Section** – What can I say, and sarcasm is intended, it is completely from the San Francisco perspective. You talk about how the bay was filled from the hillsides of San Mateo County. Technically correct but you left out how this made the people of unincorporated Millbrae fight the Counties and Burlingame to become Millbrae. This points to the historical damage SFO and the City and County of San Francisco have reaped upon the residents, land, animals and structures in Millbrae, many of which predate the massive expansion of SFO from before WWII. This section speaks of the insulation program, the second chance programs and neglects the latest programs that will go back to homes SFO mitigated and fix the problems that created. Except, not in Millbrae since Stage 3 jet engines allowed the FAA to redraw noise contour lines so only 3 homes in Millbrae are within the 65 cnel contour. So homes like mine, with window put in in the early 1990 and have failed and leaked so badly that the first floor framing had to be replaced due to dry rot, do not qualify. Since the FAA and therefore SFO can ignore low frequency back blast noise that has grown as aircraft have gotten larger and heavier, it is a win for SFO and San Francisco and a complete loss for Millbrae, Burlingame and Hillsborough. Be aware that we are pressuring the FAA to create real contours based on real existing noise and the use of R19 for departures and R1 for arrivals.

A-Millbrae-12

A-Millbrae-13

8. **Fiscal Analysis** – loss of income to adjacent communities during construction – This seems to be missing entirely. The DEIR talks about the noise of construction and its impact to the Westin but assumes the Westin has the latest Title 24 noise mitigation materials in use. Since the Westin was built decades ago, this is a false assumption.

A-Millbrae-14

A-Millbrae-15

The entire DEIR is based on quite a few false assumptions or assumptions based on inadequate research like the age of the Westin, or that the California Air Resources Board is responsible for monitoring air pollution from SFO. CARB does not monitor mobile sources in the air. They point to the US EPA, this is also the case for noise. So again the DEIR is based on false information. To my knowledge no agency is monitoring air quality even as the FAA at the Oct 2019 SFORT admitted that new science shows jet engines releases very significant amounts of PM2.5 and smaller. So all those flights SFO diverts over Millbrae from R19 departures, R1 arrivals and over flights (of which there is no reporting system as you refer to in the DEIR – 3-11) and just hundreds of feet over Millbrae bedrooms and backyards are polluting the City of Millbrae, Burlingame and Hillsborough. The DEIR doesn't even note the height over homes these flights, which will increase during the construction phase. This is yet another inadequacy in the DEIR. The final EIR should honestly record, evaluate and describe the real impact of all SFO operations before, during construction and after on the close in communities.

A-Millbrae-16

9. **Millbrae shoreline and drainage** – Is not discussed. The Highline Canal, called by the wrong name is mentioned but how Millbrae and SFO can and should work together is not included. Understandable since it appears SFO staff and the DEIR consultants didn't try to work with Millbrae. I hope this is the reason why Lomita Canal in the "West of Bayshore Site" which for us is adjacent to three neighborhoods (Airport Park, Marina Vista and Bayside Manor\*) isn't mentioned. I hope it was just an oversight and not a deliberate act to avoid discussion of previous SFO actions that have lead to physical damage and emotional distress to many Millbrae residents and clear costs to the City of Millbrae to mitigate flooding created by SFO negligence.

A-Millbrae-17

Respectfully Submitted,

City of Millbrae

Response to Attn:

Thomas C. Williams, City Manager email: [TWilliams@ci.millbrae.ca.us](mailto:TWilliams@ci.millbrae.ca.us)

Roscoe Mata, Planning Manager email [RMata@ci.millbrae.ca.us](mailto:RMata@ci.millbrae.ca.us)

October 17, 2022

Via email to [cpc.sfosppeir@sfgov.org](mailto:cpc.sfosppeir@sfgov.org)

Mr. Michael Li  
San Francisco Planning Department  
49 South Van Ness Avenue, Suite 1400  
San Francisco, CA 94103

Re: SFO's Shoreline Protection Program (Case No. 2020-004398ENV) Draft Environmental Impact Report

On behalf of the San Mateo County Flood and Sea Level Rise Resiliency District (also known as OneShoreline), thank you for accepting this comment letter on the Draft Environmental Impact Report (Draft EIR) for the San Francisco International Airport (SFO) Shoreline Protection Program (SPP). OneShoreline is pleased that this important project is moving forward, as we share SFO's desire for San Mateo County's Bay shoreline to have long-term protection against climate change driven flooding and sea level rise.

Established to work across jurisdictional boundaries and leverage partnerships to create enduring climate resilience, OneShoreline advocates for the planning and building of projects that are cross-jurisdictional, cross-sector, and cross-disciplinary. The benefits of this approach are highlighted in San Francisco's Sea Level Rise Action Plan and by the SPP Draft EIR, which states that "landside Reach 16 would only be necessary to construct if the shoreline protection system is unable to connect to anticipated future shoreline protection system improvements in South San Francisco and Millbrae." To accomplish this and avoid constructing this longest SPP reach, SFO should closely collaborate with OneShoreline, which is leading adjacent efforts.

A-OneShoreline-1

More specifically, on the northwest side of SFO, the Draft EIR needs to fully consider any impacts related to water levels, habitat, and recreation along the Bay shoreline of South San Francisco, and any such impacts to all creeks and channels flowing to the Bay within the cities of South San Francisco and San Bruno. As discussed in OneShoreline's comments on the SPP Notice of Preparation, we work closely with the cities of South San Francisco and San Bruno through the long-standing Colma Creek Flood Zone and San Bruno Creek Flood Zone that are OneShoreline-owned assets and responsibilities. Consequently, the Draft EIR's *Reach 1 – San Bruno Channel* should be designed and evaluated in the context of the needs and activities of these nearby Flood Zones, particularly as it relates to any wall along the north side of North Access Road and deployable flood gate adjacent to OneShoreline's tide gate at the mouth of San Bruno Creek.

A-OneShoreline-2

Southeast of SFO, OneShoreline leads the Millbrae and Burlingame Shoreline Area Protection and Enhancement Project, which aims to protect against the FEMA coastal Base Flood Elevation plus 6 feet. In our work to develop alternatives for this Project, we appreciate the collaboration with SFO on information sharing and property access for data collection. OneShoreline requests continued collaboration to ensure that the design elevations for the SPP's proposed improvements at *Reach 14 – Mudflat* proximate to Millbrae and *Reach 15 – Millbrae Channel* are aligned with our efforts. In addition, as our Project objectives include enhancing habitat and recreational assets, SFO's EIR must fully consider any impacts related to water levels, habitat, and recreation along the Bay shoreline of Millbrae, Burlingame, and San Mateo, and any such impacts to all creeks and channels within Millbrae and Burlingame.

Thank you for the opportunity to comment on the SPP Draft EIR and for our partnership to build regional resilience. Please let me know if you have any questions about these comments.

Sincerely,



Len Materman  
Chief Executive Officer





## A-SamTrans

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October 17, 2022

Michael Li  
San Francisco Planning Department  
Sent via email to: [cpc.sfosppeir@sfgov.org](mailto:cpc.sfosppeir@sfgov.org)

RE: SamTrans Comments on SFO Shoreline Protection Program Draft Environmental Impact Report

Dear Mr. Li,

We are pleased to provide comments on the SFO Shoreline Protection Program (SPP) Draft Environmental Impact Report (DEIR).

SamTrans acknowledges the pressing need for and supports SFO's infrastructure improvement plan. Like SFO, SamTrans is responding to impending climate change impacts and has taken initial steps toward a sea level rise solution for SamTrans' North Base Bus Yard (North Base, hereon). Accordingly, we would like to take this opportunity to reaffirm our interest in working with your office to identify design solutions that will connect and integrate the SFO shoreline barriers with new shoreline protection infrastructure at North Base.

Creating an integrated shoreline barrier that connects the SFO SPP to infrastructure at North Base will yield many community benefits. Critically, construction of a seawall and the deployment of temporary flood gates along the entrance to North Base will negatively affect SamTrans' operations by blocking SamTrans' access to North Base, its primary bus depot, which is only accessible via a bridge to North Access Road (Attachment A). We would like to work with SFO to identify a design solution that addresses both our agencies' needs.

SamTrans is confident that potentially adverse impacts can be remedied through adequate coordination between SamTrans and SFO. For example, shifting the time-of-day of the construction on SFO SPP Reach 1 could help minimize disruptions to SamTrans' operations. Similarly, scheduling the construction of Reach 1 later in the project would facilitate greater integration with SamTrans' sea level rise adaptation project, which could simplify and reduce the cost of building Reach 1 by potentially eliminating the need for floodgates. To help reconcile SamTrans' operations with the SFO SPP, SamTrans requests the opportunity to provide third-party review of future SFO SPP engineering design milestones.

SamTrans looks forward to effective, continuous communication with SFO on its critical Shoreline Protection Program, which will help protect one of the busiest airports in the United States. All Bay

**SAN MATEO COUNTY TRANSIT DISTRICT**  
1250 San Carlos Ave. – P.O. Box 3006  
San Carlos, CA 94070-1306 (650) 508-6200

A-SamTrans-1



Area agencies that own assets with coastal exposure face similar challenges adapting to climate change and sea level rise while addressing liability and ensuring operational continuity. By planning cooperatively, agencies like SFO and SamTrans can reduce costs, improve design, and produce projects that yield multiple benefits through cooperation on cohesive coastal protections. SamTrans would be pleased to work with SFO on such an effort.

Sincerely,

*Christy Wegener*

Christy Wegener  
Director of Planning

Attachments

A. North Base Site Map

## Attachment A



SOURCE: SFO, 2021

SFO Shoreline Protection Program

**FIGURE 1**  
**VISUAL SIMULATION LOCATION MAP**



**From:** [Eryn Brennan](#)  
**To:** [Eryn Brennan](#)  
**Subject:** RE: Voice Message from 650-697-6249 on 10/6/22 2:50 PM for 11426  
**Date:** Tuesday, October 18, 2022 12:38:13 PM

---

**From:** [SFO-VOICEMAIL@flysfo.com](mailto:SFO-VOICEMAIL@flysfo.com) <[SFO-VOICEMAIL@flysfo.com](mailto:SFO-VOICEMAIL@flysfo.com)>  
**Sent:** Thursday, October 6, 2022 2:52 PM  
**To:** David Kim (AIR) <[david.t.kim@flysfo.com](mailto:david.t.kim@flysfo.com)>  
**Subject:** Voice Message from 650-697-6249 on 10/6/22 2:50 PM for 11426



Voice Message from 650-697-6249 on 10/6/22 2:50 PM (40 second msg)

#### Transcribed Message:

" Hello, Mr. Kim this is and Snyder Councilman City of Melbourne. I was trying to raise my hand over and over again at the S F planning commission hearing today only to get disconnected um several times so the City of millbrae did have comments. I have comments and I'm very disappointed in the process. I listen to the whole entire planet commission meeting to get basically booted off um, the city will follow, up with foremost written comments, but really disappointing that we didn't have our time in front of the planning commission. Thank you bye."

I-Schneider1-1

### Mark

[Mark this message read in your voice mailbox.](#)

### Delete

[Delete this message from your voice mailbox.](#)

There are 1 new and 1 old messages in your mailbox.

To call in remotely to our SFO Voicemail system, dial 650-821-5678, press # at system menu, then enter your extension. After # you will be prompted for your respective voicemail box password as normal.

For issues accessing voicemail please reach out to our SFO Service Desk by phone (650-821-4357) or email [sfohelpdesk@flysfo.com](mailto:sfohelpdesk@flysfo.com)



*City of Millbrae*  
621 Magnolia Avenue, Millbrae, CA 94030

**I-Schneider2**

**ANN SCHNEIDER  
COUNCILMEMBER**

October 17, 2022

Michael Li, EIR Coordinator  
49 South Van Ness Ave, Suite 1400  
San Francisco, CA 94103  
[cpc.sfosppeir@sfgov.org](mailto:cpc.sfosppeir@sfgov.org)

**RE: San Francisco International Shoreline Protection Program Draft Environmental Impact Report (SFO SPP DEIR)**

Dear San Francisco Planning Commission:

Thank you for the opportunity to comment on the SFO SPP DEIR. I am writing as a longtime resident of the City of Millbrae and solely as a Millbrae City Council member submit this response for the record.

I am concerned that staff from the City and County of San Francisco has not met with Millbrae staff or our elected officials or the community about the proposed work to make San Francisco Airport (SFO) resilient to 21<sup>st</sup> century sea level rise. This work will impact Millbrae residents from air pollution, historic preservation, noise and vibrations, quality of life to loss of revenue during and likely after construction to our hotels, restaurants and the City.

I am also speaking with knowledge I have gained by serving as the City of Millbrae's representative on the SFO Community Roundtable (SFORT) and as the Chair of the SFORT Ground Based Noise Committee. I am not speaking for either entity as there has been no time to bring the SFO SPP DEIR to any of the SFORT committees for any discussion. Although SFO staff mentioned this report at our Oct 4, 2022, SFORT public meeting but there was no mention of any of the work identified to be done in the SFO SPP DEIR. At minimum, the consultants and San Francisco staff should present to the SFORT, the noise issues that will come with five foot thick, 9.5' tall steel walls, increase in inert surfaces that will bounce more noise and the loss of wetlands, mudflats and water that can absorb sound. They should also report on the higher amount of air pollution that will come from runway closures and potential increases in reverse flow flights.

One of my main concerns is the lack of outreach by SFO in this process as well as all previous DEIRs on SFO projects, all which impact Millbrae negatively and all of which are not mitigated. In other words what SFO does greatly impacts the health and safety of the people and properties of Millbrae. This needs to stop and San Francisco needs to stop expecting the people of Millbrae to accept every negative impact and receive no economic, environmental or cultural benefit.

Below are section specific comments that point out inadequacies in the SFO SPP DEIR (DEIR).

From the Project Summary (S.1 to S.5) and related sections of the DEIR

I-Schneider2-1

**Aviador Lot, Millbrae** – 2.5 acres to be used as one of the two main staging areas. Later in the DEIR is more detail on how SFO plans to use this location and how a project is underway in Millbrae adjacent to Aviador Lot. This is true and the projects are almost complete, with residents set to move in by the end of 2022. The DEIR goes on to say SFO operations at Aviador Lot won't cause much environmental damage. This is simply not true. There will be extreme wear and tear on brand new roads, you will not be able to run trucks under the hotel on Garden Lane and you will be making the new portion of the Bay Trail, which will run along Aviador, extremely dangerous by littering the brand-new bike pedestrian pathways full of gravel and dirt. This will damage tires and cause immediate stops for anyone skating on our new portion of the SF Bay Trail. The use of Aviador Lot for heavy construction is dangerous to local residents, tourists and everyone using the SF Bay Trail. We are already recreationally constrained by SFO and the SFPUC (Watershed land on our west flank).

I-Schneider2-2

Aviador Lot should be removed as a potential construction site. It is an incompatible land use. It is the first thing people coming to Millbrae see from 101 and the southbound exit to Millbrae Ave. It is another example of Millbrae paying an extreme price for the benefit of the City and County of San Francisco. Nor will this use comply with the Millbrae 2040 General Plan, which you do not mention at all in this DEIR. It is likely to be approved in early 2023 if not sooner.

I-Schneider2-3

**West of Bayshore Site, Millbrae** – 180 acres – IN MILLBRAE and is part of our stormwater drainage system is not mentioned at all. This is the Lomita Canal, not mentioned in the DEIR, at least to the portions I've been able to read by today's deadline. This is the area with the California Garter Snake and the Red Legged Frog. Lomita Canal, required to be maintained by SFO to prevent flooding into Millbrae residential areas, that has been so poorly maintained by SFO that the Airport Park neighborhood flooded three times from October 23, 2021, to December 23, 2021, but is not discussed in the DEIR at all. Should SFO construct Reach 16, one can logically assume flooding in Millbrae will increase. AS drainage to the bay, blocked by SFO will get worse. The DEIR is inadequate as it does not investigate or mitigate cumulative impacts of rising seas, atmospheric rivers, soil subsidence, and historic lack of maintenance by SFO on Lomita Canal. There is no discussion of how this area connects to Millbrae's pump stations and to the Highline Canal (that is mentioned in Reach 15 but not in terms of water flowing to the Bay).

I-Schneider2-4

**Reach 12 to 14** – Each Reach describes the addition of metal walls and the filling of mudflats, it appears so SFO can build more and wider maintenance roads. The DEIR discusses the removal of existing rocks which I assume will be hauled over to the Aviador Lot, increasing noise, dirt and damage to roads and loss of sleep to residents. But worse it is filling the Bay. The narrowing of the inlet created by Runways 28 (Reach 13) and along Runway 1 (Reach 14) and Millbrae will get narrower and shallower. This is a FEMA tsunami zone and this action, should an earthquake trigger, a tsunami will increase the wave height and wave strength directly into Millbrae. The fact that Millbrae and Burlingame shorelines have been added to the tsunami risk zone is ignored. Therefore, the DEIR is inadequate.

I-Schneider2-5

**Nature Based Solutions to Sea Level Rise** - the Summary should include a table with all the proposed bay fill and the impacts to local communities. There is also no discussion of nature-based solutions at all. I am well aware that SFO would prefer Millbrae to have no trees as trees to them means birds. And yet SFO has a lovely forest visitors see upon arrival to SFO. Trees also are a nature-based way to absorb noise, especially low frequency noise, so the section talking about habitat work, a separate project, that will remove trees and cause no impact is entire wrong and is another reason that makes this DEIR

I-Schneider2-6

I-Schneider2-7

I-Schneider2-8



inadequate. Removal of trees on Millbrae's east side will have immediate and long-lasting impacts to not just Airport Park, Marina Vista and Bayside Manor neighborhoods but also to all the upland neighborhoods as noise is not attenuating as it moves up our hillsides. And the noise bounced into us from the Grand Hyatt has only made this situation considerably worse.

I-Schneider2-8  
(cont.)

Each action has a cumulative impact. SFO and San Francisco have expanded constantly by keeping each impact separate, as well as the impacts of the huge 101 expansions to accommodate SFO. This hasn't hurt the residents of San Francisco, environmentally or financially as San Francisco places the burdens and none of the awards onto the "close in communities" like Millbrae. Each SFO expansion has hurt the City of Millbrae with no physical or financial mitigation.

SFO has for decades asked to fill the bay and have been told no. Now you claim you need to fill the bay for sea level rise mitigation. When really what you want to do is widen roads, adding more asphalt and inert surfaces which will bounce more noise into Millbrae. This is not discussed as a noise impact at all.

Your own Noise office will agree that inert surfaces bounce rather than absorb noise. Ground cover and water can absorb noise. Filling even an inch more of the page and adding even a square foot more of asphalt will make Millbrae noisier. This is not described, or mitigation mentioned in the DEIR and therefore the DEIR is inadequate.

**Bay Fill and Marshlands** - The DEIR hides the sheer amount of bay fill you plan to do by listing the acres to be filled reach by reach. This proves the inadequacy of this DEIR; you are not showing the cumulative impact of that much bay fill. If SFO proceeds with filling the bay and adding more inert surfaces this must be studied and discussed in the DEIR. The DEIR should also analyze the loss of noise absorption from water and plants that exist in the marshlands next to Reach 14 and Millbrae. We are aware that SFO would prefer that this area have no plants as again, plants mean birds. However, marshlands perform several functions including creation of oxygen, sound absorption, naturally slowing wave actions and reducing shoreline erosion. This is also Millbrae only piece of the Bay and looking at metal walls and rocks is not providing enjoyment for our residents for our part of the Bay.

I-Schneider2-9

I-Schneider2-10

**Noise bouncing – steel plates.** In the Noise section, the DEIR only talks about construction related noise claiming that in flight noise will be the same, before, during and after construction. There is no discussion of noise bouncing and deflecting off the new 9.5' metal walls being built. Sound walls bounce sound in several different ways. Easy examples are when freeways put in concrete noise walls and a neighborhood hundreds of yards or miles away now hears traffic sounds. The construction of the Grand Hyatt at SFO with its curved walls collects and concentrates aircraft noise from Runway 28 departures and possibly from Runway 1 departures and sends that noise into Millbrae. The curved wall of the hotel acts as an amphitheater. This negligence from past SFO expansions can not be replicated in the year 2022 and this DEIR. You need to add an investigation of what ground and inflight noise and vibrations will do when the sound/vibration waves hit the metal walls. So, the Noise Section is inadequate for this reason. You should be using this DEIR to fix the damage previous SFO work has created.

I-Schneider2-11

**Current flight Activity Wont Impact Construction Noise** - The Noise section is also inadequate in stating air traffic won't be counted as it will be same as it currently is, then later in the DEIR discuss the 84 months of runway closures. That the strong likelihood that adverse weather, reverse flow flights will use Runway 19 to take off over Millbrae and arrive on Runway 1. Runway 19 departures and Runway 1 arrivals. These flight paths are not counted in the CNEL contours, or in any current or future mitigation.

I-Schneider2-12



SFO and the FAA's noise contours do not honestly reflect real flights over Millbrae, Burlingame and Hillsborough. The DEIR does not account for existing noise let alone the increased use of these runway during other runway closures. This again shows why this DEIR is inadequate. We are not talking about a few flights a year. It can be as much as 17% of flights per year, weather dependent, under pre covid travel. It will be more with runway closures. The DEIR must account for the real world and not just say, SFO will try not to use these runways, unless... "gosh darn they really, really have to". There are real impacts to the people and buildings under these flights. Many if not most of these structures fall in the historic range. My house for example was built in 1930 to 1931 and has overflights daily above it. Most buildings in Millbrae and Burlingame and Hillsborough fall in the 45 year or older category. The DEIR does not address this at all.

I-Schneider2-12  
(cont.)

**Noise Insulation Program** - The entire section on insulation is inadequate as it uses CNEL A weighted noise and not C-weighted which includes low frequency noise created by SFO ground operations, jet taxing, run ups, and departures. The FAA only begins to look at noise once a plane is in the air, and not what happens to communities behind and to the sides of runways. Low Frequency noise fans out at 45 degree angles from the jet engine. It is not a straight line which sadly is ignored by the current FAA noise contours. The FAA is well aware of this issue as it is one of the major issues brought up by SFORT. There is no discussion of this in the DEIR at all, and then a brush off that reverse flow departures won't be that great but could last for 84 months over the course of almost 10 years.

**2020 Low Frequency Noise Spectral Analysis Study** - Also absent from this DEIR is acknowledging the 2020 Spectral Analysis study on how low frequency noise moves from SFO and up into the hillsides, where it does not attenuate and in fact concentrates. So how noise will react to 5' thick 9.5' tall walls and midnight to 6 am construction work for 10 years will have a much greater impact on people in the "close in communities". Since SFO plans on using Aviator Lot continuously, that that is just one more noise addition to all the existing inputs including arrivals, departures, run-ups, ground transportation, 101, BART, Caltrain. All these agencies, SFO included, have gotten away with each saying the other creates the ambient noise and then getting to discount and not mitigate for their actions, with the result a noise hell in Millbrae.

I-Schneider2-13

It is understandable to use 2019 data as the pandemic did have a big impact on the number of flights. Flights are now back to approx. 85% per SFO report at the Oct 4, 2022, SFORT. Now that the Gateway Project is almost complete, those buildings should be used for noise measurements. Had any staff come to this location you would see that the hotel is built over Garden Lane, so the idea of running heavy dirty trucks, spewing gravel underneath sleeping people simply is not going to happen. So, your assumptions throughout the DEIR of using Garden Lane are not practicable or acceptable.

I-Schneider2-14

**Historical Section** – What can I say, and sarcasm is intended, it is completely from the San Francisco perspective. You talk about how the bay was filled from the hillsides of San Mateo County. Technically correct but you left out how this made the people of unincorporated Millbrae fight the Counties and Burlingame to become Millbrae. This points to the historical damage SFO, and the City and County of San Francisco have reaped upon the residents, land, animals and structures in Millbrae, many of which predate the massive expansion of SFO from before WWII.

I-Schneider2-15

This section speaks of the insulation program, the second chance programs and neglects the latest programs that will go back to homes SFO mitigated and fix the problems that created. Except, not in Millbrae since Stage 3 jet engines allowed the FAA to redraw noise contour lines so only 3 homes in

I-Schneider2-16



Millbrae are within the 65 cnel contour. So, homes like mine, with window put in in the early 1990 and have failed and leaked so badly that the first floor framing had to be replaced due to dry rot, do not qualify. Since the FAA and therefore SFO can ignore low frequency back blast noise that has grown as aircraft have gotten larger and heavier, it is a win for SFO and San Francisco and a complete loss for Millbrae, Burlingame and Hillsborough. Be aware that we are pressuring the FAA to create real contours based on real existing noise and the use of R19 for departures and R1 for arrivals.

I-Schneider2-16  
(cont.)

**Fiscal Analysis** – loss of income to adjacent communities during construction – This seems to be missing entirely. The DEIR talks about the noise of construction and its impact to the Westin but assumes the Westin has the latest Title 24 noise mitigation materials in use. Since the Westin was built decades ago, this is a false assumption.

I-Schneider2-17

I-Schneider2-18

To be honest the entire DEIR is based on quite a few false assumptions or assumptions based on inadequate research like the age of the Westin, or that the California Air Resources Board is responsible for monitoring air pollution from SFO. CARB does not monitor mobile sources in the air. They point to the US EPA; this is also the case for noise. So again, the DEIR is based on false information. To my knowledge no agency is monitoring air quality even as the FAA at the Oct 2019 SFORT admitted that new science shows jet engines releases very significant amounts of PM2.5 and smaller. So, all those flights SFO diverts over Millbrae from R19 departures, R1 arrivals and over flights (of which there is no reporting system as you refer to in the DEIR – 3-11) and just hundreds of feet over Millbrae bedrooms and backyards are polluting the City of Millbrae, Burlingame and Hillsborough. And likely causing health impacts to our residents. There is no discussion of this in the DEIR so it the DEIR is inadequate. The DEIR doesn't even note the height over homes these flights, which will increase during the construction phase. This is yet another inadequacy in the DEIR. The final EIR should honestly record, evaluate and describe the real impact of all SFO operations before, during construction and after on the close in communities including health impacts and quality of life impacts.

I-Schneider2-19

**Millbrae shoreline and drainage** is not discussed. The Highline Canal, called by the wrong name is mentioned but how Millbrae and SFO can and should work together is not included. Understandable since it appears SFO staff, and the DEIR consultants didn't try to work with Millbrae. I hope this is the reason why Lomita Canal in the "West of Bayshore Site" which for us is adjacent to three neighborhoods (Airport Park, Marina Vista and Bayside Manor) isn't mentioned. I hope it was just an oversight and not a deliberate act to avoid discussion of previous SFO actions that have led to physical and economical damage and emotional distress to many Millbrae residents and clear costs to the City of Millbrae to mitigate flooding created by SFO negligence.

I-Schneider2-20

There are errors like the ones I mention above throughout the document. It was written as if SFO was in San Francisco and not in San Mateo County surrounded by cities like Millbrae. The entire document does not discuss impacts to Millbrae and other close in communities. You need to fix this throughout the document and the appendixes. If not, then the DEIR will remain inadequate and subject to legal action.

I-Schneider2-21

I am a fourth generation San Franciscan. My family helped build San Francisco in the early 1900s (Folsom Street Ironworks). My parents and I moved to Millbrae in 1967 and to our current home in 1974. The Palm Ave house was insulated by SFO, (but windows were not caulked or installed correctly

I-Schneider2-22



leading to significant damage to the framing and sheathing that I replaced in 2007. We have lived through the changes in jet engines for in flight noise that has led to the shrinkage of noise contours. These contours do not reflect reality. Intense, long lasting and frequent departure noise and vibrations blast our house. The spectral analysis models showed consistent noise levels on my street, on my block of over 76 dbL. When I read this DEIR, I can see that many of the assumptions are just plain wrong, that new information is not included. Reaching out to the City of Millbrae would have provided areas that should have been included in this DEIR and are not.

I-Schneider2-22  
(cont.)

I hate to say this, but I have firmly come to believe that the City and County of San Francisco as shown by its actions, that the people of Millbrae do not count, that we must suffer for San Francisco's benefit. That we are simply a colony of San Francisco that can be treated as colonies were in the 17<sup>th</sup> to 20<sup>th</sup> centuries. That San Francisco does this even as they speak of equity and fairness. If San Francisco truly believes in equity and fairness, then the work described in the SFO SPP DEIR should improve existing conditions, should work arm and arm with the City of Millbrae and other close in communities to make life better for all of us. Sadly, this DEIR does none of that. And I for one will not stand for continual abuse by San Francisco on my community, on my friends and family or on me.

I-Schneider2-23

You have much more work to complete before this DEIR can be considered an honest and comprehensive EIR. Please reach out to Millbrae staff and SFORT staff to get real information and include the true and honest impacts of preparing SFO for sea level rise and atmospheric rivers.

Sincerely,



Ann Schneider

Resident,  
406 Palm Ave.  
Lower Millbrae Highlands Neighborhood  
Millbrae, CA 94030  
650-697-6249  
[AnnSchneider2020@outlook.com](mailto:AnnSchneider2020@outlook.com)

Councilwoman, Former Mayor  
City of Millbrae  
Member SFORT, Chair SFORT Ground Based Noise Committee (used for identification purposes only)  
Member, San Mateo County Emergency Services Council  
City Rep for Sea Level Rise Issues  
38 Years working in the environmental field including climate change and adaptation work.  
[ASchneider@ci.millbrae.ca.us](mailto:ASchneider@ci.millbrae.ca.us)

1 SAN FRANCISCO PLANNING COMMISSION

2 SFO Noise Round Table

3  
4 PHONE MESSAGE FROM ANN SCHNEIDER TRANSCRIPTION

5  
6 To be included in:

7 FINAL ENVIRONMENTAL IMPACT REPORT

8  
9 Environmental Science Associates

10  
11  
12  
13  
14  
15  
16  
17  
18  
19 Reported by:

20 Connie J. Parchman, RPR, CRR, CSR 6137

21 -----

22 JAN BROWN & ASSOCIATES

23 WORLDWIDE DEPOSITION & VIDEOGRAPHY SERVICES

24 701 Battery Street, 3rd Floor, San Francisco, CA 94111

25 (415) 981-3498 or (800) 522-7096



I-Schneider3-1

1 MS. SCHNEIDER: Hello, Mr. Li. This is Ann  
2 Schneider, councilman, City of Millbrae.

3 And I'm very frustrated. I listened to the  
4 entire Planning Commission and was in the queue, I  
5 thought, only to be disconnected when the Chair called  
6 for people on the phone.

7 Dialed back in, was sitting out there listening  
8 to all of the commissioners talk and never got a chance  
9 to present the concerns that the City of Millbrae has.

10 I know we have it in writing. I just would  
11 have liked to have had my time in front of the Planning  
12 Commission of San Francisco. So I'll include the  
13 complaint in the process. But your system disconnected  
14 me multiple times and I have it recorded on my phone.

15 But if you can get back to me -- it's too late  
16 now. Everybody walked out of the room.

17 Ann Schneider, City of Millbrae, councilman,  
18 former mayor, SFO Noise Round Table and the city's lead  
19 on one -- on sea level rise. (650)697-6249.

20 And just -- my God, the commissioners didn't  
21 say boo, not boo, for something that is such a huge  
22 event. That is absolutely disappointing. Absolutely.  
23 Disappointing.

24 (Voice message concluded.)

25 ---o0o---

1 State of California )  
 ) ss.

2 County of Alameda )  
3  
4

5 I, Connie J. Parchman, CSR #6137, do hereby  
6 certify: That I am a certified shorthand reporter of the  
7 State of California; that I was provided access to audio  
8 files; that a verbatim record of the proceedings was made  
9 by me using machine shorthand which was thereafter  
10 transcribed under my direction; further, that the  
11 foregoing is an accurate transcription thereof.

12 I further certify that I am neither financially  
13 interested in the action nor a relative or employee of  
14 any attorney or any of the parties.

15 IN WITNESS WHEREOF, I have subscribed my  
16 name.  
17

18 \_\_\_\_\_  
Connie J. Parchman, CSR #6137

19  
20  
21 Date: November 8, 2022  
22  
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Marc Zeppetello  
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October 17, 2022

SENT BY EMAIL

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[michael.j.li@sfgov.org](mailto:michael.j.li@sfgov.org)

Michael Li  
Senior Environmental Planner  
San Francisco City Planning  
49 South Van Ness Avenue, Suite 1400  
San Francisco, CA 94103

Re: Draft Environmental Impact Report, San Francisco International Airport Shoreline Protection Program, Case No. 2020-004398ENV

Dear Mr. Li:

Thank you for the opportunity to comment on the Draft Environmental Impact Report for the San Francisco International Airport Shoreline Protection Program ("Draft EIR").

The Draft EIR states that the San Francisco International Airport Shoreline Protection Program ("Project") "would require approximately 26 acres of open water fill in San Francisco Bay and would impact approximately 3 acres of wetlands areas." Draft EIR at 1-1. These comments concern the Draft EIR's analysis of the Project's impacts from filling open Bay waters and the proposed mitigation measure to compensate for unavoidable Bay fill impacts.

Filling Approximately 26 Acres of Open Bay Waters Is a Potentially Significant Impact Distinct from the Impacts of Such Fill on Biological Resources

The Draft EIR discusses the potentially substantial impact of the Project on state or federally protected wetlands in Section 4.D., Biological Resources. Draft EIR at 4.D-53 to 4.D-56 (Impact BI-5). Although the Draft EIR refers to impacts to "jurisdictional waters," the focus of the discussion in this section is on impacts to wetlands biological resources. Notwithstanding the emphasis on the Project's impacts on biological resources, the impacts of filling approximately 26 acres of open waters of San Francisco Bay is a potentially significant impact distinct from the impacts of such fill on biological resources.

Evaluating the impacts of filling approximately 26 acres of the Bay more broadly than solely with respect to impacts on biological resources is necessary and appropriate given the

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California Legislature's determination that the Bay is "the most valuable single natural resource of [the] entire region." Cal. Gov't Code § 66600. A more thorough assessment of the Project's Bay fill impacts is also warranted by other provisions of the McAteer-Petris Act and policies of the San Francisco Bay Plan. See Cal. Gov't Code §§ 66604 (findings and declarations as to maximum protection of present shoreline and body of the bay), 66605(b) (bay fill for any purpose should be authorized only when no alternative upland location is available); 66605(c) (water area to be filled should be the minimum necessary to achieve the purpose of the fill), 66605(d) (any fill should minimize harmful effects, such as reduction or impairment of the volume of surface area or circulation of water); San Francisco Bay Plan, Water Surface Area and Volume Policy 1 (bay surface area and total volume of water should be kept as large as possible) and Policy 2 (proposed fills should be evaluated to determine their effects upon water circulation and modified as necessary to improve circulation or minimize harmful effects).

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(cont.)

#### The Draft EIR Contains No Evidence that Mitigation Measure M-BI-5b is Feasible

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Mitigation Measure M-BI-5b states that San Francisco International Airport ("Airport") shall provide compensatory mitigation for the placement of Bay fill and fill of seasonal wetlands "as further determined by regulatory agencies with authority over these features during the permitting process." Draft EIR at 4.D-55 to 4.D-56. This mitigation measure contains a brief paragraph generally describing various activities that "may" be included as compensatory mitigation for the impacts of fill in the Bay and wetlands.

However, the Draft EIR fails to identify any potential sites, proposed restoration projects, or mitigation banks at which mitigation to compensate for the Project's fill impacts could feasibly be implemented. Similarly, the Draft EIR fails to discuss the acreages of aquatic or terrestrial habitat types proposed as compensatory mitigation, specific performance standards that the mitigation will achieve, or the types of potential actions that can feasibly achieve any subsequently developed performance standards and that will be considered, analyzed, and potentially incorporated in the compensatory mitigation measures. (The mitigation ratio of 1:1 stated in Mitigation Measure M-BI-5a is not a performance standard, but rather refers to the acreage and/or resource values to be restored, created, or enhanced to compensate for unavoidable impacts.) For these reasons, the Draft EIR contains no evidence that Mitigation Measure M-BI-5b is a "feasible" mitigation measure as required by CEQA. 14 C.C.R. § 15126.4(a)(1).

The Draft EIR's failure to include a feasible compensatory mitigation measure for the approximately 26 acres of Bay fill is particularly noteworthy. There may be an available site (or sites) to implement a habitat enhancement or restoration plan to compensate for the Project's impacts to approximately 3 acres of wetlands, but such activities would not necessarily constitute acceptable in-kind mitigation for the placement of approximately 26 acres of Bay fill. The Draft EIR refers to the possibility of fill removal through removal of chemically treated wood material or unengineered debris but fails to identify any potential location(s) or the available acreage of such fill removal. Thus, the Draft EIR contains no evidence that Mitigation



Measure-BI-5b is a feasible mitigation measure to compensate for the impacts from filling 26 acres of the Bay.

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(cont.)

The CEQA Guidelines provide that compliance with a regulatory permit may be identified as mitigation if compliance would result in implementation of measures that would reasonably be expected, based on substantial evidence in the record, to reduce the significant impacts to a specified performance standard. *Id.* § 15126.4(a)(1)(B). However, a conclusory assertion that compensatory mitigation for fill impacts will be determined later “by regulatory agencies with authority...during the permitting process” is insufficient and ignores the practical reality that the permitting and resource agencies with jurisdiction will not develop a compensatory mitigation plan for the Airport. Rather, under both CEQA and in the permitting process, the Airport needs to develop a proposed compensatory mitigation plan for review and comment by those agencies.

The lack of relevant information in the Draft EIR suggests that the Airport has made little or no progress during the CEQA review process working with the permitting and resource agencies to develop a viable compensatory mitigation plan for the Project’s fill impacts on Bay waters and wetlands. As a result, the Draft EIR fails to provide the responsible state agencies, who must rely on the EIR in their review and permitting processes, and the public with sufficient information to evaluate whether any compensatory mitigation will be feasible and sufficient or to assess whether such compensatory mitigation itself may result in potentially significant environmental effects. *See Id.* § 15126.4(a)(1)(D). In the absence of any information regarding available sites and acreages to provide compensatory mitigation through fill removal, habitat enhancement, and/or restoration, and considering the Draft EIR’s failure to identify any specified performance standards to assure the long-term success of such mitigation, there is no evidence that Mitigation Measure M-BI-5b will reduce the Project’s fill impacts on open waters of the Bay and wetlands to less than significant with mitigation.

Consider Fill Removal of All or a Portion of Piers 30-32 in San Francisco to Compensate for the Project’s Impacts of Filling Approximately 26 Acres of the Bay

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Given that the Airport has not identified an available site or sites to implement mitigation to compensate for the Project’s impacts from approximately 26 acres of Bay fill, this is to suggest that consideration be given to mitigating those fill impacts by the removal of all or a portion of Piers 30-32 on the San Francisco waterfront. Piers 30-32 is a deteriorated, dilapidated, seismically unsafe 13-acre structure with load restrictions that limit its use to parking spaces. Various proposals to redevelop Piers 30-32 over the past 20 years (or longer) have been unsuccessful in part due to the substantial costs that must be incurred either to seismically upgrade and renovate the existing structure or to completely remove it and construct a replacement pier. *See Port of San Francisco, Presentation to San Francisco Bay Conservation and Development Commission (June 17, 2021), at slides 3-5 (available on BCDC’s website).*

Providing compensatory mitigation for the Project's Bay fill impacts through removal of all or a portion of Piers 30-32 would benefit both the Airport and the Port. Fill removal at Piers 30-32 would provide in-kind mitigation for the Project's impacts from filling open waters of the Bay by creating an open water area at Piers 30-32. Moreover, the compensatory mitigation would be provided through coordination between two agencies within the same municipal jurisdiction (*i.e.*, the City and County of San Francisco) and in relative proximity to the Project's Bay fill impacts (in comparison to providing mitigation in other jurisdictions at more distant locations such as in the South Bay or East Bay). Finally, if Airport mitigation dollars that will otherwise be spent to pay for mitigation elsewhere in and around the Bay are used instead to fund the removal of some or all of Piers 30-32, the Port would have the opportunity to consider and pursue a fresh vision for the urban shoreline at this location. Without the need for private development to fund the removal of Piers 30-32, it might be possible to improve this stretch of the waterfront to include construction of a new replacement pier with a deep water berth to meet the Port's maritime needs together with bay-oriented recreation and visitor-serving commercial uses consistent with the public trust to generate lease revenues for the Port.

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(cont.)

If it is determined that it is not feasible to compensate for the Project's Bay fill impacts by removal of all or a portion of Piers 30-32, the Final EIR should include substantial evidence to support that determination.

Thank you for consideration of these comments.

Sincerely,



Marc Zeppetello

cc: David Kim, San Francisco International Airport, [david.t.kim@flysfo.com](mailto:david.t.kim@flysfo.com)  
David Beaupre, Port of San Francisco, [david.beaupre@sfport.com](mailto:david.beaupre@sfport.com)  
Anniken Lydon, Bay Conservation and Development Commission,  
[anniken.lydon@bcdca.gov](mailto:anniken.lydon@bcdca.gov)

## **ATTACHMENT C**

### Technical Support Documentation for Final EIR Response AQ-1





# memorandum

date March 9, 2023

to Tania Sheyner, Principal Environmental Planner, San Francisco Environmental Planning Division

cc David Kim, Senior Planner, San Francisco International Airport

from Brian Schuster, Cheri Velzy, and Sarah Patterson, ESA

subject San Francisco International Airport Shoreline Protection Program – Technical Support  
Documentation for Final EIR Response AQ-1

## Introduction

This memorandum provides technical information to support the San Francisco International Airport Shoreline Protection Program (proposed project) Final EIR Chapter 4, *Comments and Responses*, Response AQ-1 to comment A-BAAQMD-2. The Bay Area Air Quality Management District (BAAQMD) submitted a letter dated October 17, 2022, on the Draft EIR for the proposed project. In comment A-BAAQMD-2, the commenter requests that Mitigation Measure M-AQ-3b, Clean On-Road Trucks, be revised to require on-road heavy-duty trucks to have engines that are no more than eight years old, instead of engines that are model year 2018 or newer. ESA estimated nitrogen oxides (NO<sub>x</sub>) emissions with implementation of BAAQMD's proposed revision to M-AQ-3b and compared the results to the NO<sub>x</sub> emissions presented in the Draft EIR under the current M-AQ-3b requirement.

### ***On-Road Heavy-Duty Diesel Trucks Model Year Assessment***

To address NO<sub>x</sub> emissions that would exceed significance thresholds, the Draft EIR included Mitigation Measure M-AQ-3b, Clean On-Road Trucks. The results from implementation of Mitigation Measure M-AQ-3b are presented in Draft EIR Table 4.C-13, *Average Daily Construction Emissions by Source and Year – Likely Mitigated Scenario*.

### **Analysis**

Draft EIR Appendix E, *Air Quality Technical Memorandum and Health Risk Assessment*, (referred to as the AQTM in this memo) documents the equations and assumptions required to estimate the proposed project construction emissions from on-road vehicles (see Section 2, *Analysis Methods and Assumptions*). Equation 2 from the AQTM was used to estimate NO<sub>x</sub> emissions from on-road heavy-duty trucks with implementation of the proposed requirement that M-AQ-3b mandate on-road heavy-duty trucks to have engines that are no more than eight years old.

## On-Road Vehicle Activity

Activity data and assumptions from AQTM subsections *Truck Trips and Worker Commutes*, *Construction Support Vehicles*, and *Haul Truck Idling* were used (AQTM Section 2.2.1).

## Emission Factors

Emission factor methods from AQTM subsections *Truck Trips and Worker Commutes*, *Construction Support Trucks and Shuttles*, and *Haul Truck Idling* were used in this analysis (AQTM Section 2.2.2). Consistent with the AQTM, emission factors for all trip types and vehicle types were derived from the 2021 Emission FACtor (EMFAC2021) model for the entire BAAQMD region. ESA did not regenerate EMFAC2021 emission rates for this analysis; rather, emission factors for the Likely Scenario (truck model year 2018 or newer) were revised to reflect on-road heavy-duty trucks with engines no more than eight years old for the duration of construction.

AQTM Section 2.5, *Control Measures*, Subsection 2.5.2, *Model Year 2019 or Newer Engines*, discusses the on-road heavy-duty trucks modeling approach for the Likely Scenario. For this analysis, all heavy-duty trucks (those with a gross vehicle weight rating of 19,500 pounds or greater) would have eight-year-old engines or newer. This was modeled by running EMFAC2021 for the heavy-heavy-duty truck (HHDT) vehicle type for each calendar year of construction (2025–2031) and selecting only model years eight years old or newer for each year of construction. For example, construction year 2026 would include truck model years 2018–2027; construction year 2032 would include truck model years 2024–2033. The emission factors were then weighted based on EMFAC default vehicle miles traveled (VMT) for each model year, producing an activity-weighted emission factor for each calendar year of construction. Default values for the BAAQMD region were used consistent with the uncontrolled modeling.

**Table 1** presents the NO<sub>x</sub> emission factors for on-road heavy-duty trucks with engine model years that are no more than eight years old.

## Emissions Results

**Table 2** compares mitigated average daily NO<sub>x</sub> emissions for Draft EIR with the proposed Mitigation Measure M-AQ-3b.

As shown in Table 2, implementation of proposed Mitigation Measure M-AQ-3b (engines no more than eight years old) would have a minor effect on the proposed project's NO<sub>x</sub> emissions compared to implementation of the Draft EIR M-AQ-3b (model year 2018 or newer engines). Specifically, during the years when construction of the proposed project would exceed the NO<sub>x</sub> emissions thresholds (2025–2028), proposed M-AQ-3b would reduce total NO<sub>x</sub> emissions by 0.1 percent compared to those presented in the Draft EIR. This small decrease is largely due to two reasons: (1) the NO<sub>x</sub> emission rates under each engine requirement are very similar during 2025–2028; and (2) mitigated NO<sub>x</sub> emissions are driven by marine sources and not on-road trucks (on-road vehicles contribute only 9 percent of total NO<sub>x</sub> emissions in 2025 for the proposed project).

In later years of construction, implementation of proposed Mitigation Measure M-AQ-3b would produce greater NO<sub>x</sub> emission reductions compared to the Draft EIR because on-road truck engines would be several years newer as compared to the model year 2018 requirement. For example, from 2030 to 2031, the eight-year-old engine requirement would reduce total NO<sub>x</sub> emissions by 2.1 to 2.5 percent. However, mitigated NO<sub>x</sub> emissions do not exceed the threshold during these years.

**TABLE 1**  
**EIGHT YEAR OR NEWER MODEL YEAR TRUCK MOBILE SOURCE NO<sub>x</sub> EMISSION FACTORS**

Year, Vehicle Type, and MY Range <sup>b</sup>	Grams per Mile <sup>a</sup>			Grams per Trip <sup>a</sup>	Grams per Hour
	Offsite Trips – Aggregated Speed	Onsite Trips – 15 mph	Onsite Trips – 5 mph	Offsite Trips – Aggregated Speed <sup>b</sup>	All Trips - Idling
	NO <sub>x</sub>	NO <sub>x</sub>	NO <sub>x</sub>	NO <sub>x</sub>	NO <sub>x</sub>
<b>2025</b>					
HD Trucks (MY 2018-2026)	1.216	3.935	4.987	3.608	27.98
<b>2026</b>					
HD Trucks (MY 2018-2027)	1.231	3.991	4.964	3.570	27.98
<b>2027</b>					
HD Trucks (MY 2019-2028)	1.229	4.020	4.806	3.492	27.98
<b>2028</b>					
HD Trucks (MY 2020-2029)	1.216	4.012	4.626	3.346	27.98
<b>2029</b>					
HD Trucks (MY 2021-2030)	1.204	3.973	4.309	3.196	27.98
<b>2030</b>					
HD Trucks (MY 2022-2031)	1.197	3.950	4.113	3.077	27.98
<b>2031</b>					
HD Trucks (MY 2023-2032)	1.192	3.938	3.924	2.972	27.98
<b>2032</b>					
HD Trucks (MY 2024-2033)	1.188	3.928	3.836	2.881	27.98
<b>2033</b>					
HD Trucks (MY 2025-2034)	1.183	3.915	3.759	2.805	27.98

SOURCE: EMFAC2021; ESA, 2023

ABBREVIATIONS: MY = model year; mph = miles per hour; HD = heavy-duty; ROG = reactive organic gases; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter less than or equal to 10 microns in diameter; PM<sub>2.5</sub> = particulate matter less than or equal to 2.5 microns in diameter; mph = miles per hour

NOTES:

<sup>a</sup> Modeled in EMFAC2021. Trip type categories include:

Offsite Trips - Aggregated Speed = emission factors for offsite trips using aggregated (average) speeds from EMFAC.

Onsite Trips - 15 mph = emission factors for onsite trips using the 15-mph speed bin from EMFAC.

Onsite Trips - 5 mph = emission factors for onsite trips using the 5-mph speed bin from EMFAC.

<sup>b</sup> Vehicle type categories include:

HD Trucks = heavy-duty haul trucks and vendor trucks, modeled in EMFAC as diesel HHDT

**TABLE 2**  
**AVERAGE DAILY MITIGATED CONSTRUCTION EMISSIONS BY SOURCE AND YEAR**

	Draft EIR <sup>b</sup>	Proposed M-AQ-3b <sup>c</sup>	Percent Change
<b>2025</b>			
Off-Road Equipment	27.3	27.3	0.0%
On-Road Vehicles	17.2	17.1	-0.7%
Marine Vessels	137.7	137.7	0.0%
<i>Subtotal</i>	<u>182.3</u>	<u>182.2</u>	<u>-0.1%</u>
<b>2026</b>			
Off-Road Equipment	25.7	25.7	0.0%
On-Road Vehicles	13.8	13.7	-0.7%
Marine	97.0	97.0	0.0%
<i>Subtotal</i>	<u>136.4</u>	<u>136.3</u>	<u>-0.1%</u>

	Draft EIR <sup>b</sup>	Proposed M-AQ-3b <sup>c</sup>	Percent Change
<b>2027</b>			
Off-Road Equipment	21.5	21.5	0.0%
On-Road Vehicles	11.9	11.7	-1.5%
Marine	123.9	123.9	0.0%
<i>Subtotal</i>	<i>157.3</i>	<i>157.1</i>	<i>-0.1%</i>
<b>2028</b>			
Off-Road Equipment	16.2	16.2	0.0%
On-Road Vehicles	8.0	7.7	-3.0%
Marine	99.1	99.1	0.0%
<i>Subtotal</i>	<i>123.3</i>	<i>123.1</i>	<i>-0.2%</i>
<b>2029</b>			
Off-Road Equipment	20.1	20.1	0.0%
On-Road Vehicles	12.2	11.7	-4.0%
Marine	7.0	7.0	0.0%
<i>Subtotal</i>	<i>39.3</i>	<i>38.9</i>	<i>-1.2%</i>
<b>2030</b>			
Off-Road Equipment	20.2	20.2	0.0%
On-Road Vehicles	15.2	14.4	-4.9%
Marine	0	0	0.0%
<i>Subtotal</i>	<i>35.4</i>	<i>34.6</i>	<i>-2.1%</i>
<b>2031</b>			
Off-Road Equipment	11.6	11.6	0.0%
On-Road Vehicles	9.5	9.0	-5.7%
Marine	0.4	0.4	0.0%
<i>Subtotal</i>	<i>21.6</i>	<i>21.0</i>	<i>-2.5%</i>

SOURCE: ESA, 2021. ESA, 2023.

ABBREVIATIONS: ROG = reactive organic gases; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter less than or equal to 10 microns in diameter; PM<sub>2.5</sub> = particulate matter less than or equal to 2.5 microns in diameter

NOTES:

Due to rounding, numbers in columns may not add to totals.

<sup>a</sup> Source categories defined as follows:

Off-Road Equipment = operating emissions from heavy-duty equipment, such as bulldozers, cranes, and excavators. Refer to AQTM Table 1, p. 6, and Table 2, p. 7, for equipment activity assumptions. Emissions were modeled using OFFROAD 2011 and CalEEMod load factors. The Likely Scenario was modeled assuming a combination of engine tiers ranging from Tier 4 Final to Tier 2, based on total horsepower-hours for all construction equipment, in the following amounts: 90 percent Tier 4 Final, 5 percent Tier 4 Interim, 3 percent Tier 3, and 2 percent Tier 2.

On-Road Vehicles = Travel and idling emissions from on-road vehicles, including heavy-duty trucks, medium-duty trucks, shuttles, and worker commutes (light-duty autos and trucks). Emissions were modeled using EMFAC2021. The Likely Scenario was modeled with all heavy-duty trucks as model year 2018 or newer. Additionally, this scenario includes a 2-minute idling time limitation and electric powered shuttles for workers.

Marine = operating emissions from marine vessels, such as skiffs, barges, crew boats, push boats, and dredges. Refer to AQTM Table 9a, p. 27, through Table 10, p. 29, for equipment activity assumptions. Emissions were calculated using U.S. EPA's Ports Emissions Inventory Guidance and CARB's Emissions Estimation Methodology for Commercial Harbor Craft Operating in California. The Likely Scenario does not include additional controls on marine engine emissions compared to the uncontrolled scenario.

<sup>b</sup> NO<sub>x</sub> emissions under the Draft EIR represents the requirement that all heavy-duty diesel on-road trucks have engines that are model year 2018 or newer, pursuant to M-AQ-3b.

<sup>c</sup> NO<sub>x</sub> emissions under the proposed M-AQ-3b represents the requirement that all heavy-duty diesel on-road trucks have engines that are no more than eight years old.

## ATTACHMENT B

# AGREEMENT TO IMPLEMENT MITIGATION MONITORING AND REPORTING PROGRAM

Record No.: 2020-004398ENV  
 Project Title: SFO Shoreline Protection Program  
 Project Sponsor: San Francisco International Airport  
 Lead Agency: San Francisco Planning Department  
 Staff Contact: Tania Sheyner – 628.652.7578  
[tania.sheyner@sfgov.org](mailto:tania.sheyner@sfgov.org)

The table below indicates when compliance with each mitigation measure must occur. Some mitigation measures span multiple phases. Substantive descriptions of each mitigation measure’s requirements are provided on the following pages in the Mitigation Monitoring and Reporting Program.

Adopted Mitigation Measure	Period of Compliance			Compliance with MM Completed?
	Prior to the Start of Construction *	During Construction **	Post-construction or Operational	
Mitigation Measure M-NO-1: Construction Noise Control Measures	X	X		
Mitigation Measure M-AQ-3a: Clean Off-Road Construction Equipment	X	X		
Mitigation Measure M-AQ-3b: Clean On-Road Trucks	X	X		
Mitigation Measure M-AQ-3c: Electric Worker Shuttles	X	X		
Mitigation Measure M-AQ-3d: Clean Marine Vessels	X	X		
Mitigation Measure M-AQ-3e: Offset Remaining Construction Emissions	X	X		
Mitigation Measure M-BI-1a: Worker Environmental Awareness Program Training	X	X		
Mitigation Measure M-BI-1b: Special-Status Plant Species Surveys and Restoration	X	X		
Mitigation Measure M-BI-1c: Avoid and Minimize Impacts to California Ridgway’s Rail and California Black Rail	X	X		
Mitigation Measure M-BI-1d: Nesting Bird Protection Measures	X	X		

Adopted Mitigation Measure	Period of Compliance			Compliance with MM Completed?
	Prior to the Start of Construction*	During Construction**	Post-construction or Operational	
Mitigation Measure M-BI-1e: Roosting Bat Protection Measures	X	X		
Mitigation Measure M-BI-1f: Prevention of Fish Entrapment and Entrainment during Dewatering	X	X		
Mitigation Measure M-BI-1g: Fish and Marine Mammal Protection during Pile Driving	X	X		
Mitigation Measure M-BI-2: Avoidance and Mitigation for Pickleweed Mat Sensitive Natural Community	X	X		
Mitigation Measure M-BI-5a: Avoidance of Impacts on Wetlands and Waters	X	X		
Mitigation Measure M-BI-5b: Compensation for Fill of Wetlands and Waters	X	X		
Mitigation Measure M-HY-1a: In-Water Construction Water Quality Management Plan	X	X		
Mitigation Measure M-HY-1b: Implement Dewatering BMPs for In-Water Work	X	X		
Mitigation Measure M-CR-2a: Accidental Discovery	X	X		
Mitigation Measure M-CR-2b: Archeological Testing	X	X		
Mitigation Measure M-TCR-1: Tribal Cultural Resources Program	X	X		

\* Prior to any ground disturbing activities at the project site.

\*\* Construction is broadly defined to include any physical activities associated with construction of a development project including, but not limited to: site preparation, clearing, demolition, excavation, shoring, foundation installation, and building construction.

Note to sponsor: Please contact [CPC.EnvironmentalMonitoring@sfgov.org](mailto:CPC.EnvironmentalMonitoring@sfgov.org) to begin the environmental monitoring process.

## ATTACHMENT B

# MITIGATION MONITORING AND REPORTING PROGRAM

MONITORING AND REPORTING PROGRAM <sup>a</sup>				
Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
MITIGATION MEASURES AGREED TO BY PROJECT SPONSOR				
EIR SECTION 4.B, NOISE AND VIBRATION				
<p><b>Mitigation Measure M-NO-1: Construction Noise Control Measures.</b> Incorporate the following practices into the construction contract, for implementation by the construction contractor during the project's daytime construction in Reaches 1 and 2 when working within 400 feet of the Safe Harbor Shelter.</p> <p>Prior to issuance of any demolition or building permit, the project sponsor shall submit a project-specific construction noise control plan for Reaches 1 and 2 to the ERO or the ERO's designee for approval. The construction noise control plan shall be prepared by a qualified acoustical engineer with input from the construction contractor, and include all feasible measures to reduce construction noise to less than significant. The construction noise control plan shall identify noise control measures to meet a performance target of construction activities not resulting in a noise level greater than 90 dBA at noise sensitive receptors and 10 dBA above the ambient noise level at noise sensitive receptors. The project sponsor shall ensure that requirements of the construction noise control plan are included in contract specifications. The plan shall also include measures for notifying the public of construction activities, complaint procedures, and a plan for monitoring construction noise levels in the event complaints are received. The construction noise control plan shall include the following measures to the degree feasible, or other effective measures, to reduce construction noise levels:</p> <ul style="list-style-type: none"> <li>• Use construction equipment that is in good working order, and inspect mufflers for proper functionality;</li> <li>• Select "quiet" construction methods and equipment (e.g., improved mufflers, use of intake silencers, engine enclosures);</li> </ul>	Project sponsor/ qualified acoustical consultant/ contractor(s)	Prior to issuance of any demolition or building permit	Planning department	Considered complete after receipt of noise monitoring reports and completion of construction activities

**MONITORING AND REPORTING PROGRAM<sup>a</sup>**

Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<ul style="list-style-type: none"> <li>• Use construction equipment with lower noise emission ratings whenever possible, particularly for air compressors;</li> <li>• Prohibit the idling of inactive construction equipment for more than 5 minutes;</li> <li>• Locate stationary noise sources (such as compressors) as far from nearby noise sensitive receptors as possible;</li> <li>• Avoid placing stationary noise-generating equipment (e.g., generators, compressors) within noise-sensitive buffer areas (as determined by the acoustical engineer) immediately adjacent to neighbors;</li> <li>• Enclose or shield stationary noise sources from neighboring noise-sensitive properties with noise barriers to the extent feasible. To further reduce noise, locate stationary equipment in pit areas or excavated areas, if feasible; and</li> <li>• Install temporary barriers, barrier-backed sound curtains and/or acoustical panels around working powered impact equipment and, if necessary, around the project site perimeter. When temporary barrier units are joined together, the mating surfaces shall be flush with each other. Gaps between barrier units, and between the bottom edge of the barrier panels and the ground, shall be closed with material that completely closes the gaps, and dense enough to attenuate noise.</li> </ul> <p>The construction noise control plan shall include the following measures for notifying the public of construction activities, complaint procedures and monitoring of construction noise levels:</p> <ul style="list-style-type: none"> <li>• Designation of an on-site construction noise manager for the project;</li> <li>• Notification of neighboring noise sensitive receptors within 300 feet of the project construction area at least 30 days in advance of high-intensity noise-generating activities (e.g., pier drilling, pile driving, and other activities that may generate noise levels greater than 90 dBA at noise sensitive receptors) about the estimated duration of the activity;</li> <li>• A notification to the Safe Harbor Shelter (295 North Access Road) describing noise complaint procedures and a complaint hotline number that shall always be answered during construction;</li> <li>• A procedure for notifying the planning department of any noise complaints within one week of receiving a complaint;</li> </ul>				



**MONITORING AND REPORTING PROGRAM<sup>a</sup>**

Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<ul style="list-style-type: none"> <li>• A list of measures for responding to and tracking complaints pertaining to construction noise. Such measures may include the evaluation and implementation of additional noise controls at the Safe Harbor Shelter (295 North Access Road) sensitive receptor; and</li> <li>• Conduct noise monitoring (measurements) at the beginning of major construction phases (e.g., demolition, grading, excavation) and during high-intensity construction activities to determine the effectiveness of noise attenuation measures and, if necessary, implement additional noise control measures.</li> </ul> <p>The construction noise control plan shall include the following additional measures during pile-driving activities at Reaches 1 and 2:</p> <ul style="list-style-type: none"> <li>• When pile driving is to occur within 600 feet of the Safe Harbor Shelter (295 North Access Road), implement “quiet” pile-driving technology (such as pre-drilling of piles, sonic pile drivers, auger cast-in-place, or drilled-displacement, or the use of more than one pile driver to shorten the total pile-driving duration [only if such measure is preferable to reduce impacts to sensitive receptors]) where feasible, in consideration of geotechnical and structural requirements and conditions;</li> <li>• Where the use of driven impact piles cannot be avoided, properly fit impact pile driving equipment with an intake and exhaust muffler and a sound-attenuating shroud, as specified by the manufacturer; and</li> <li>• Conduct noise monitoring (measurements) before, during, and after the pile driving activity if “quiet” pile driving technology is not feasible and an impact pile driver is used.</li> </ul>				
<b>EIR SECTION 4.C, AIR QUALITY</b>				
<p><b>Mitigation Measure M-AQ-3a: Clean Off-Road Construction Equipment</b></p> <p>The project sponsor shall comply with the following:</p> <ol style="list-style-type: none"> <li>1. <i>Engine Requirements.</i> All off-road equipment greater than 25 horsepower and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements:               <ol style="list-style-type: none"> <li>a. All portable engines, such as generators, shall be electric. If grid electricity is not available, alternative power such as, but not limited to, battery storage</li> </ol> </li> </ol>	Project sponsor and contractor(s)	Prior to the start of construction project sponsor to submit:	Planning department	Considered complete upon planning department review and acceptance of

**MONITORING AND REPORTING PROGRAM<sup>a</sup>**

Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<p>and hydrogen fuel cells, shall be considered for feasibility before considering propane or natural gas generators. Only if these alternative sources of power are not feasible, as determined by the ERO in consultation with SFO, then portable engines shall meet the requirements of 1.c.</p> <p>b. Electric engines shall be used for all equipment that is readily available as plug-in or battery-electric equipment, to the maximum extent feasible during each construction phase and activity. Portable equipment shall be powered by grid electricity if available. Electric equipment may include, but is not limited to, concrete/industrial saws, sweepers/scrubbers, aerial lifts, welders, air compressors, fixed cranes, forklifts, and cement and mortar mixers, pressure washers, and pumps.</p> <p>c. Engines that cannot be electrically powered must meet or exceed either U.S. Environmental Protection Agency or California Air Resources Board (air board) Tier 4 Final off-road emission standards.</p> <p>d. Engines shall be fueled with alternative fuels as commercially available and to the maximum extent feasible during each construction phase and activity. This may include renewable diesel, natural gas, propane, hydrogen fuel cell, and electricity.</p> <p>e. Any other best technology available in the future may be included in the construction emissions minimization plan as substitutions for the above items a–d, provided that the project sponsor submits documentation to the planning department demonstrating that (1) the technology would result in comparable NO<sub>x</sub> emissions reductions and (2) it would not increase other pollutant emissions or result in other additional impacts, such as noise. This may include new alternative fuels or engine technology for off-road equipment (such as electric or hydrogen fuel cell equipment) that is not available as of 2022.</p> <p>f. The project sponsor shall require the idling time for off-road equipment be limited to no more than 2 minutes, except as provided in exceptions to the applicable state regulations regarding idling for off-road equipment. Documentation shall be provided to equipment operators in multiple languages (e.g., English, Spanish, Chinese) to remind operators of the 2-minute idling limit. If the majority of the project sponsor’s construction staff</p>		<ol style="list-style-type: none"> <li>1. Construction emissions minimization plan for review and approval, and</li> <li>2. Signed certification statement</li> </ol>		<p>signed certification statement, construction emissions minimization plan, implementation of the plan, and submittal of final report summarizing use of construction equipment pursuant to the plan</p>

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## Adopted Mitigation Measures

- g. The project sponsor shall require that construction operators properly maintain and tune equipment in accordance with manufacturer specifications.
2. *Waivers.* The project sponsor may, in consultation with the ERO, waive the electric engine requirement of above items 1.a and 1.b if electric power is limited or infeasible at the project site. The project sponsor may, in consultation with the ERO, waive the equipment requirements of item 1.c if: (1) the contractor does not have the required type of equipment within its current available inventory or has ordered such equipment at least 60 days in advance and has made a good faith effort to lease or rent such equipment but it is not available; (2) a particular piece of Tier 4 final off-road equipment is technically or financially infeasible; (3) the equipment would not produce desired emissions reduction due to expected operating modes; or (4) there is a compelling emergency need to use off-road equipment that is not Tier 4 Final compliant. If any of the listed waiver criteria apply, the contractor must use the next cleanest piece of off-road equipment, according to Table M-AQ-3a-1. Emerging technologies with verifiable emissions reductions supported by substantial evidence may also be employed in lieu of the step-down schedule below, if those technologies meet the requirements of 1.e, above.

**Table M-AQ-3a-1 Off-Road Equipment Compliance Step-Down Schedule**

Compliance Alternative	Minimum Engine Emission Standard
1	Tier 4 Interim
2	Tier 3
3	Tier 2
4	Tier 1

## Implementation Responsibility

Project sponsor/  
contractor(s) and  
ERO or designee

## Mitigation Schedule

If a waiver is  
requested

## Monitoring/Reporting Responsibility

ERO

## Monitoring Actions/Completion Criteria

Considered  
complete upon  
granting of the  
waiver

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>The project sponsor may, in consultation with the ERO, waive the alternative fuel requirements of item 1.d if alternative fuels are not commercially available or the use of alternative fuels would negatively affect construction performance, void equipment warranties, or would result in additional NO<sub>x</sub> emissions compared to traditional fuels. For purposes of this mitigation measure, “not commercially available” is defined as either: (1) not being used for other large-scale construction projects in the Bay Area occurring at the same time; (2) cannot be obtained without significant delays to critical-path timing of construction; or (3) not available within the larger Bay Area region.</p> <p>3. <i>Construction Emissions Minimization Plan.</i> Before starting onsite construction activities, the project sponsor shall submit a Construction Emissions Minimization Plan (Plan) to the ERO for review and approval. The Plan shall state, in reasonable detail, how the contractor will meet the requirements of item 1.</p> <p>a. The Plan shall include estimates of the construction timeline by phase (or by reach and activity or groups of reaches depending on actual construction timing), with a description of each piece of off-road equipment required for every construction phase. The description may include, but is not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, expected fuel type (e.g., diesel, gasoline, electric, propane, natural gas), and hours of operation.</p> <p>b. The Plan shall also include an updated calculation of expected construction NO<sub>x</sub> emissions (total and average pounds per day) for all construction activities associated with the project (including off-road construction equipment, on-road vehicles, in-water marine equipment, and any other construction activity generating NO<sub>x</sub> emissions). The Plan shall document the project’s performance in relation to the threshold of 54 pounds of NO<sub>x</sub> per day. Emissions shall be reported in average daily pounds for each construction period during each calendar year of anticipated construction activities. Emission calculation methods should generally follow the approach used in this EIR and in Appendix E, Air Quality Technical Memorandum.</p> <p>c. The project sponsor shall make the Plan available to the public for review onsite at SFO Building 674 (674 West Field Road) during working hours. The</p>				

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<p>contractor shall post online (on SFO's website) a notice summarizing the Plan. The notice shall also state that the public may ask to inspect the Plan for the project at any time during working hours and shall explain how to request to inspect the Plan.</p> <p>4. <i>Reporting.</i> After start of construction activities, the project sponsor shall submit biannual reports to the ERO documenting compliance with the Plan. After completion of construction activities, the project sponsor shall submit to the ERO a final report summarizing construction activities, including the start and end dates and duration of each construction phase, and the specific information required in the Plan.</p> <p>The biannual reports shall include a calculation of NO<sub>x</sub> emissions for all construction activities completed prior to the biannual report for all phases of construction completed. Emissions shall be reported in average daily pounds (for each construction period during each calendar year). The biannual reports shall also include documentation supporting the use of waivers if the engine requirements of items 1.a, 1.b, 1.c, and/or 1.d cannot be met.</p> <p>Within six months of the completion of construction activities, the project sponsor shall submit to the ERO a final report summarizing construction activities. The final report shall indicate the start and end dates and duration of each construction phase (or Reach and Activity). For each phase, the report shall include detailed information required in item 3.a. The report shall also include a final inventory of NO<sub>x</sub> emissions for all construction activities completed. Emissions shall be reported in average daily pounds (for each construction period during each calendar year) and total tons per calendar year.</p> <p>5. <i>Certification Statement and Onsite Requirements.</i> Prior to commencing construction activities, the project sponsor shall certify (1) compliance with the Plan, and (2) all applicable requirements of the Plan have been incorporated into contract specifications.</p>	Project sponsor/ contractor(s)	Biannual	Project sponsor to submit biannual reports to the ERO	Considered complete upon findings by the ERO that the Plan is being/has been implemented

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<b>Mitigation Measure M-AQ-3b: Clean On-Road Trucks</b>				
The project sponsor shall comply with the following:				
<p>1. <i>Engine Requirements.</i></p> <ul style="list-style-type: none"> <li>a. All on-road heavy-duty diesel trucks with a gross vehicle weight rating of 19,500 pounds or greater used at the project site (such as haul trucks, water trucks, dump trucks, concrete trucks, and vendor trucks) shall be model year 2018 or newer.</li> <li>b. Use alternative fuels as commercially available, such as natural gas, propane, hydrogen fuel cell, and electric vehicles or other fuels where evidence suggests that NO<sub>x</sub> emissions would be reduced compared to conventional diesel fuel.</li> <li>c. Any other best technology available in the future (i.e., not available as of 2022) may be used for the above items 1.a and 1.b, provided that the project sponsor submits documentation to the planning department demonstrating that (1) the technology would result in comparable NO<sub>x</sub> emissions reductions and (2) that such measures would not increase other pollutant emissions or result in other additional impacts, such as noise. This may include new alternative fuels for on-road trucks.</li> <li>d. Require the idling time for on-road vehicles be limited to no more than 2 minutes, except as provided in exceptions to the applicable state regulations regarding idling for on-road vehicles. Documentation shall be provided to truck drivers in multiple languages (e.g., English, Spanish, Chinese) to remind operators of the 2-minute idling limit. If the majority of the project sponsor's construction staff speak a language other than these, then the documentation shall be provided in that language as well.</li> </ul>	Project sponsor and contractor(s)	<p>Prior to construction project sponsor to submit:</p> <ul style="list-style-type: none"> <li>1. Construction emissions minimization plan for review and approval, and</li> <li>2. Signed certification statement</li> </ul>	Planning department	<p>Considered complete upon planning department review and acceptance of signed certification statement, construction emissions minimization plan, implementation of the plan, and submittal of final report summarizing use of on-road trucks pursuant to the plan</p>
<p>2. <i>Waivers.</i> The project sponsor may, in consultation with the ERO, waive the requirements of items 1.a and 1.b for on-road heavy duty diesel vendor trucks delivering materials to the project site if each vendor truck entering the project site is used only once for a single delivery of equipment or material per reach. If this condition is met, the contractor must demonstrate that that vendor truck was used once for a single delivery to the project site per reach.</p>	Project sponsor/contractor(s) and ERO or designee	If a waiver is requested	ERO	<p>Considered complete upon granting of the waiver</p>

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<p>The project sponsor may, in consultation with the ERO, waive the alternative fuel requirements of item 1.b if alternative fuels are not commercially available or the use of alternative fuels is not technologically feasible, would void truck warranties, or would result in additional NO<sub>x</sub> emissions compared to traditional fuels. For purposes of this mitigation measure, “not commercially available” shall be defined as: (1) not being used for other large-scale construction projects in the Bay Area occurring at the same time; (2) cannot be obtained without significant delays to critical-path timing of construction; or (3) not available within the larger Bay Area region.</p> <p>3. <i>Construction Emissions Minimization Plan.</i> The Construction Emissions Minimization Plan (Plan), as described in Mitigation Measure M-AQ-3a item 3 above, shall include a description of each general category of on-road trucks required for every construction phase (or reach, etc.) and an estimate of NO<sub>x</sub> emissions associated with all on-road trucks, in addition to all off-road construction equipment. The description shall also specify the engine model years and fuel type being used (e.g., diesel, electric, natural gas).</p> <p>4. <i>Reporting.</i> The report, as described in Mitigation Measure M-AQ-3a item 4, shall include documentation of compliance with the Plan regarding on-road trucks, in addition to off-road construction equipment. The report shall include an estimate of NO<sub>x</sub> emissions from all on-road truck activities completed prior to the biannual report for all phases of construction completed. The report shall also include documentation supporting the use of waivers if engine requirements under Item 1.a or 1.b cannot be met.</p> <p>5. <i>Certification Statement and Onsite Requirements.</i> The Certification Statement, as described in Mitigation Measure M-AQ-3a item 5 above, shall apply to all applicable requirements for on-road trucks.</p>	Project sponsor/ contractor(s)	Biannual	Project sponsor to submit biannual reports to the ERO	Considered complete upon findings by the ERO that the plan is being/has been implemented
<p><b>Mitigation Measure M-AQ-3c: Electric Worker Shuttles</b></p> <p>The project sponsor or the project sponsor’s contractor shall use electric shuttles to transport construction workers from the worker parking area(s) to each construction site, including all reaches, the Aviador Lot, and any other construction staging or activity areas. No fossil fuel shuttles shall be permitted. The procurement and use of all electric shuttles shall be documented and submitted to</p>	Project sponsor/ contractor(s)	Prior to construction	Project sponsor to prepare and submit documentation to the ERO	Considered complete on findings by ERO that measure has been implemented

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
the San Francisco Planning Department for review and approval. The project sponsor shall also incentivize construction workers to carpool, use electric vehicles (EVs), or use public transit to commute to and from the worker parking areas and/or each construction site. This may include the following features: preferential parking for carpool vehicles, vanpool vehicles, and EVs; access to EV charging stations; and discounts on EV charging fees.				
<p><b>Mitigation Measure M-AQ-3d: Clean Marine Vessels</b></p> <p>The project sponsor shall comply with the following:</p> <ol style="list-style-type: none"> <li>1. <i>Engine Requirements.</i> All in-water marine equipment greater than 100 horsepower and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements: <ol style="list-style-type: none"> <li>a. Engines that meet or exceed U.S. Environmental Protection Agency or California Air Resources Board Tier 4 Marine Engine emission standards.</li> <li>b. Any other best available technology in the future (i.e., not available as of 2022) may be used for above item 1a., provided that the project sponsor submits documentation to the planning department demonstrating that (1) the technology would result in comparable NO<sub>x</sub> emissions reductions and (2) that such measures would not increase other pollutant emissions or result in other additional impacts, such as noise. This may include new alternative fuels or engine technology for marine equipment (such as electric or hydrogen fuel cell equipment) that is not known or available as of 2022.</li> <li>c. All marine vessels shall shut off their main propulsion engines when anchored, tied to shore, or at berth, or not otherwise using their main propulsion engines for maneuvering or transiting.</li> </ol> </li> <li>2. <i>Waivers.</i> The project sponsor may, in consultation with the ERO, waive the equipment requirements of item 1 if: (1) a particular piece of Tier 4 marine equipment is not commercially available; (2) the contractor does not have the required type of equipment within its current available inventory or has ordered such equipment at least 60 days in advance and has made a good faith effort to lease or rent such equipment but they are not available; (3) a particular</li> </ol>	<p>Project sponsor and contractor(s)</p> <p>Project sponsor/ contractor(s) and ERO or designee</p>	<p>Prior to construction project sponsor to submit:</p> <ol style="list-style-type: none"> <li>1. Construction emissions minimization plan for review and approval, and</li> <li>2. Signed certification statement</li> </ol> <p>If a waiver is requested</p>	<p>Planning department</p> <p>ERO</p>	<p>Considered complete upon planning department review and acceptance of acceptance of signed certification statement, construction emissions minimization plan, implementation of the plan, and submittal of final report summarizing use of marine construction equipment pursuant to the plan</p> <p>Considered complete upon granting of the waiver</p>



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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<p>piece of Tier 4 marine equipment is technically or financially infeasible; (4) the equipment would not produce desired emissions reduction due to expected operating modes; or (5) there is a compelling emergency need to use marine equipment that is not Tier 4 compliant. For purposes of this mitigation measure, “not commercially available” shall be defined as: (1) not being used for other large-scale construction projects in the Bay Area occurring at the same time; (2) cannot be obtained without significant delays to critical-path timing of construction; or (3) not available within marine vessel fleets within the larger Bay Area region or would result in additional NO<sub>x</sub> emissions associated with transporting the equipment from other areas in the state or country to the project site (i.e., from Long Beach to San Francisco). If waived, the contractor must use engines that meet or exceed Tier 3 Marine Engine emission standards.</p> <p>Any other best available technology with verifiable emissions reductions may be included in the construction emissions minimization plan as substitutions for item 1 above, provided documentation is submitted to the planning department demonstrating comparable NO<sub>x</sub> emissions reductions and the substitution would not increase other pollutant emissions or result in other additional impacts, such as noise.</p> <p>3. <i>Maximize Trucks in Lieu of Barges:</i> On-road trucks shall be used in place of barges or other in-water equipment for fill placement or export during construction of Reaches 7 and 8 unless (1) a sufficient number of on-road haul trucks to replace barges or other in-water equipment cannot be obtained without substantial delays to critical-path timing of the construction of Reaches 7 and 8; (2) the truck fleet contractor does not have the required type of trucks within its current available inventory or has ordered such equipment at least 60 days in advance and has made a good faith effort to lease or rent such equipment but they are not available; (3) the use of trucks in lieu of barges would not produce desired emissions reduction due to expected operating modes; (4) there is a compelling emergency need to use marine equipment instead of trucks; (5) the use of trucks would be technically or economically infeasible; or (6) replacing barges with trucks would increase other pollutant emissions or result in other additional impacts, such as noise. All on-road trucks shall meet the requirements of Mitigation Measure M-AQ-3b.</p>				

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<p>4. <i>Construction Emissions Minimization Plan.</i> The Construction Emissions Minimization Plan (Plan), as described in Mitigation Measure M-AQ-3a item 3 above, shall include a description of each general category of marine equipment required for every construction phase (or reach, etc.) and an estimate of emissions associated with all marine equipment, in addition to all off-road construction equipment. The description shall also specify the engine type and fuel type being used (e.g., diesel, electric, natural gas). The Plan shall also include an updated calculation of expected NO<sub>x</sub> emissions for all marine equipment activities associated with the project.</p> <p>5. <i>Reporting.</i> The monitoring report, as described in Mitigation Measure M-AQ-3a item 4, shall include documentation of compliance with the Plan regarding marine equipment, in addition to off-road construction equipment. The report shall include a calculation of NO<sub>x</sub> emissions for all marine equipment activities completed prior to the biannual report for all phases of construction completed. The report shall also include documentation supporting the use of waivers if engine requirements under Item 1.a or truck substitution requirements under Item 3 cannot be met.</p> <p>6. <i>Certification Statement and Onsite Requirements.</i> The Certification Statement, as described in Mitigation Measure M-AQ-3a item 5, shall apply to all applicable requirements of the construction emissions minimization plan for marine equipment.</p>	Project sponsor/ contractor(s)	Biannual	Project sponsor to submit biannual reports to the ERO	Considered complete upon findings by the ERO that the plan is being/has been implemented

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<p><b>Mitigation Measure M-AQ-3e: Offset Remaining Construction Emissions</b></p> <p>The project sponsor, with the oversight of the planning department, shall implement one or more of the following measures to achieve annual reductions or offsets of NO<sub>x</sub> within the San Francisco Bay Area Air Basin equal to the amount required to reduce project NO<sub>x</sub> emissions below 54 pounds per day after implementation of all other identified mitigation measures as calculated and approved through the documentation submitted to the planning department as stipulated in Mitigation Measures M-AQ-3a through M-AQ-3d.</p> <ol style="list-style-type: none"> <li>1. <i>Directly fund or implement a specific offset project within the San Francisco Bay Area Air Basin.</i> Emission reduction projects shall occur in the following locations in order of priority to the extent available: (1) at the airport; (2) off-site within the neighborhood surrounding the project site; (3) within the cities of South San Francisco, San Bruno, or Millbrae; (4) within the County of San Mateo; and (5) within the San Francisco Bay Area Air Basin. The project sponsor shall consider all options available at the Airport (option #1) before implementing off-site projects (options #2 through #5). Any offsite emission reduction projects are subject to the approval by the City. Such projects could include strategies and control measures such as zero-emission trucks, upgrading locomotives with cleaner engines, replacing existing diesel stationary and standby engines with Tier 4 diesel or cleaner engines, or expanding or installing energy storage systems (e.g., batteries, fuel cells) to replace stationary sources of pollution. Prior to implementing the offset project, it must be approved by the planning department, as consistent with the requirements of this mitigation measure.</li> <li>2. <i>Pay mitigation offset fees</i> to an independent third-party approved by the planning department, such as the Bay Area Air Quality Management District or other government or non-government entity. The mitigation offset fee, if determined to be economically feasible, shall fund one or more emissions reduction projects within the San Francisco Bay Area Air Basin. Emission reduction projects shall occur in the following locations in order of priority to the extent available: (1) at the airport; (2) off-site within the neighborhood surrounding the project site; (3) within the cities of South San Francisco, San Bruno, or Millbrae; (4) within the County of San Mateo; and (5) within the San Francisco Bay Area Air Basin. The fee will be determined through consultation</li> </ol>	Project sponsor/ contractor(s)	Prior to the start of construction for the first year when project construction NO <sub>x</sub> emissions are predicted to first exceed 54 lbs/day (2025), project sponsor to submit required documentation as specified in the mitigation measure	Planning department	Considered complete upon planning department review and acceptance of documentation demonstrating a reduction in NO <sub>x</sub> emissions or NO <sub>x</sub> emissions offsets that reduce the project's NO <sub>x</sub> emissions to below 54 lbs/day (average)

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<p>between the project sponsor and the entity, and be based on the type of projects available at the time of the payment.</p> <p>3. <i>Memorandum of Understanding.</i> When paying a mitigation offset fee under item 2, the project sponsor shall enter into a memorandum of understanding (MOU) with the entity. The MOU shall include details regarding the funds to be paid, the administrative fee, and the timing of the emissions reductions project(s). Acceptance of this fee by the entity shall serve as acknowledgment and a commitment to implement an emissions reduction project(s) within a time frame agreed upon in the MOU based on the type of project(s) selected, after receipt of the mitigation fee to achieve the emissions reduction objectives specified above.</p>	Project sponsor/ contractor(s)	Before payment of mitigation offset fee under Item 2 above	Planning department	Considered complete upon planning department review and acceptance of signed MOU
<p>4. <i>Waivers.</i> The ERO or designee may waive the requirement to achieve annual reductions or offsets of NO<sub>x</sub> equal to the amount required to reduce emissions below 54 pounds per day after implementation of Mitigation Measures M-AQ-3a, M-AQ-3b, M-AQ-3c, and M-AQ-3d and all after all feasible offset projects are implemented and offset fees are paid as described above for a specific year of construction NO<sub>x</sub> emissions if: (1) sufficient NO<sub>x</sub> emission offset projects within the San Francisco Bay Area Air Basin, as described in item 1, are not available to reduce NO<sub>x</sub> emissions below 54 pounds per day when they occur during construction; (2) the cost of the offset projects or the mitigation offset fees, as described in item 3, are determined to be economically infeasible; or (3) FAA determines that funding offsets would violate the airport's grant obligations.</p>	Project sponsor/ contractor(s) and ERO or designee	If a waiver is requested	ERO	Considered complete upon granting of the waiver
<p>5. <i>Offset Verification Report.</i> The project sponsor shall prepare an Annual Offset Verification Report (Report) as follows:</p> <p>a. <i>Initial Report:</i> the initial report shall be submitted along with the Construction Emissions Minimization Plan described above in Mitigation Measure M-AQ-3a. The purpose of the initial report is to determine the additional NO<sub>x</sub> offsets needed to reduce the project's NO<sub>x</sub> emissions below 54 pounds per day for each year of construction after implementation of all other emission reduction measures implemented through the verified Construction Emissions Minimization Plan described above in Mitigation Measure M-AQ-3a.</p>	Project sponsor/ contractor(s)	Initial report submitted prior to construction. Subsequent reports to be submitted annually the first quarter of each year.	Project sponsor to submit annual reports to the ERO	Considered complete upon findings by the ERO that the measure is being/has been implemented

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<p>b. <i>Subsequent Reports:</i> Subsequent reports shall be submitted in the first quarter of each year following completion of construction activities for the prior year as shown in final development plan or equivalent. The purpose of the subsequent reports is to determine additional NO<sub>x</sub> offsets needed to bring the project below the thresholds of significance each year, based on the estimate of NO<sub>x</sub> emissions for all construction activities completed as part of the biannual reports prepared for the Construction Emissions Minimization Plan described above in Mitigation Measure M-AQ-3a. If the subsequent reports indicate that the project sponsor achieved greater NO<sub>x</sub> emission reductions than necessary to reduce the project's NO<sub>x</sub> emissions below 54 pounds per day for the previous year, then emissions reductions achieved through an offset project may be banked for use in the year following the year(s) for which emissions reductions were banked. If the subsequent reports indicate that the project sponsor failed to achieve sufficient NO<sub>x</sub> emission reductions to reduce the project's NO<sub>x</sub> emissions below 54 pounds per day for the previous year, then the project sponsor must fund or implement additional offset projects or pay additional mitigation offset fees to achieve annual reductions of NO<sub>x</sub> equal to the amount required to reduce emissions below 54 pounds per day. The report shall also include documentation supporting the use of waivers if requirements under Items 1 and 2 cannot be met.</p> <p>c. <i>Offset Project Documentation:</i> To qualify under this mitigation measure, any offset project implemented or mitigation offset fee paid must result in NO<sub>x</sub> emission reductions within the San Francisco Bay Area Air Basin that are real, permanent, quantifiable, enforceable, and surplus as defined in the Bay Area Air Quality Management District Regulation 2, Rule 2: New Source Review, sections 2-3-301, 2-2-211, 2-2-603, and 2-2-605. The project sponsor shall certify that each specific emission reduction offset project meets these requirements. The total emission offset amount shall be calculated by summing the total annual construction emissions of NO<sub>x</sub> (tons) after implementation of all other mitigation measures and emission reduction features, dividing by the total number of workdays per year (typically 260 days), converting to pounds, and subtracting the average daily threshold of 54 pounds of NO<sub>x</sub>. The documentation shall quantify the NO<sub>x</sub> reduction(s) achieved by all offset projects to demonstrate that the gap</p>				

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<p>between the project's mitigated emissions and the significance threshold of 54 pounds per day of NO<sub>x</sub> has been met through the offset project(s). Each annual Offset Verification Report shall demonstrate, based on substantial evidence, that the project has reduced NO<sub>x</sub> emissions below the thresholds of significance of 54 pounds per day for each year of construction. The requirement to fund an offset project(s) described in item 1 above and/or to pay mitigation offset fees through the MOU described in items 2 and 3 above shall terminate if the project sponsor is able to demonstrate that the project's construction emissions upon the completion of construction are less than 54 pounds per day.</p> <p>d. <i>Report Submittal:</i> The report shall be prepared by the project sponsor and submitted to the San Francisco Planning Department for review and verification. Documentation of offset projects and mitigation offset payments, as applicable, shall be provided to the San Francisco Planning Department for review and approval prior to the start of construction for the first year when project NO<sub>x</sub> emissions are predicted to exceed 54 pounds per day, as set forth above in item 5.a above (Initial Report). Thereafter, documentation of mitigation offset projects or mitigation offset payments, as applicable, shall be provided to the San Francisco Planning Department annually as set forth above in item 5.b above (Subsequent Reports). NO<sub>x</sub> offsets for the previous year, if required as documented in the subsequent offset verification reports as set forth above in item 5.b above, shall be in place by the end of each reporting year. If the San Francisco Planning Department determines the report is reasonably accurate, it shall approve the report; otherwise, the planning department shall identify deficiencies and direct the project sponsor to correct and re-submit the report for approval.</p>				
<b>EIR SECTION 4.D, BIOLOGICAL RESOURCES</b>				
<p><b>Mitigation Measure M-BI-1a: Worker Environmental Awareness Program Training.</b> Project-specific Worker Environmental Awareness Program (WEAP) training shall be developed and implemented by a qualified biologist and attended by all project personnel performing demolition or ground-disturbing work where landscaping/street trees, natural vegetation or shoreline habitats are present prior to the start of work. The WEAP shall include environmental permit and CEQA mitigation requirements related to biological resources for all stages of the project</p>	Project sponsor, qualified biologist, construction contractor(s)	Prior to construction	Project sponsor and qualified biologist shall develop WEAP training	Considered complete at end of construction

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<p>and shall be repeated as necessary to ensure all personnel on the construction crew receive the training, e.g., when new personnel are added to the crew. The WEAP training shall generally include, but not be limited to, education about the following:</p> <ul style="list-style-type: none"> <li>• Applicable local, state and federal laws, environmental regulations, project permit conditions, and penalties for non-compliance.</li> <li>• Special-status plant and animal species with the potential to be encountered on or in the vicinity of the project area during construction.</li> <li>• Avoidance measures and a protocol for encountering special-status species including a communication chain.</li> <li>• Pre-construction surveys and biological monitoring requirements associated with each phase of work and at specific locations within the project area (e.g., shoreline work) as biological resources and protection measures will vary depending on where work is occurring within the site, time of year, and construction activity.</li> <li>• Known sensitive resource areas in the project vicinity that are to be avoided and/or protected as well as approved project work areas, access roads, and staging areas.</li> <li>• Best management practices (e.g., straw wattles or spill kits) and their location around the project area for erosion control and species exclusion, in addition to general housekeeping requirements.</li> <li>• Special-status species and sensitive natural communities detected during surveys or monitoring for the project shall be reported to the California Department of Fish and Wildlife California Natural Diversity Database using the field survey forms found at <a href="https://wildlife.ca.gov/Data/CNDDDB/SubmittingData#4452442-pdf-field-survey-form">https://wildlife.ca.gov/Data/CNDDDB/SubmittingData#4452442-pdf-field-survey-form</a>.</li> </ul>				

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<p><b>Mitigation Measure M-BI-1b: Special-Status Plant Species Surveys and Restoration.</b> Botanical surveys shall be conducted where construction, demolition, site access, materials staging, or spoils piles are planned within coastal saltmarsh or within 50 feet of coastal saltmarsh. Surveys will follow the most current California Department of Fish and Wildlife's (CDFW) rare plant survey protocol, presently the 2018 <i>Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities</i>.<sup>1</sup> Surveys shall maximize the likelihood of locating special-status species, include areas of potential indirect impacts, and be conducted in the field at the time of year when species are both evident and identifiable. If no special-status plants are identified, no further action is required to avoid or minimize impacts to these species.</p> <p>If special-status plants are encountered in the work area, they should be avoided. If they cannot be avoided, then the following additional measures shall be implemented. The Airport shall, in coordination with the U.S. Fish and Wildlife Service (USFWS) and/or CDFW (as applicable based on plant status), avoid plants through project design, protect plants from construction activities through the use of exclusion fencing and signage, or if avoidance and protection are not feasible, minimize impacts to plant populations, relocate plants to other suitable habitat nearby, or harvest seed, as appropriate to the particular species.</p> <p>Prior to construction, staging areas shall be identified that avoid impacts to special-status plants identified, and construction exclusion fencing shall be used to define the work area to prevent disturbance to these areas. The fencing shall be maintained through the construction phase and monitored on a weekly basis during construction to ensure protection of rare plants and their habitat.</p> <p>If avoidance is not feasible, rare plants and their seeds shall be salvaged and relocated, and habitat restoration shall be provided to replace any destroyed special-status plant occurrences at a minimum 1:1 ratio (i.e., no net loss) or as specified by resource agencies based on area of lost habitat. Compensation for loss of special-status plant populations shall include the restoration or enhancement of temporarily impacted areas, and management of restored areas. Restoration or reintroduction shall be located onsite where feasible. At a minimum, the restoration areas shall meet the following performance standards by the fifth year:</p>	Project sponsor, qualified biologist, construction contractor(s)	Prior to and during construction	<p>Qualified biologist to conduct surveys prior to construction</p> <p>Coordinate with USFWS and/or CDFW as applicable if special-status plants are encountered</p>	Considered complete at end of construction

<sup>1</sup> CDFW, *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities*, March 20, 2018.



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<p>a. The compensation area shall be at least the same size as the rare plant impact area.</p> <p>b. Vegetation cover and composition in special-status plant restoration areas shall emulate existing reference populations.</p> <p>c. Monitoring shall demonstrate the continued presence of rare plants in the restoration area.</p> <p>d. Invasive species cover in the restoration area shall be less than or equal to the invasive species cover in the rare plant impact area.</p> <p>Additionally, restored populations shall have a comparable number of individuals compared to the impacted population, in an area greater than or equal to the size of the impacted population, for at least three consecutive years without irrigation, weeding, or other manipulation of the restoration site. The Habitat Monitoring Plan to be prepared in accordance with Mitigation Measure M-BI-2, Avoidance and Mitigation for Pickleweed Mat Sensitive Natural Community, shall include the above monitoring requirements and success criteria.</p>				
<p><b>Mitigation Measure M-BI-1c: Avoid and Minimize Impacts to California Ridgway's Rail and California Black Rail.</b> To minimize or avoid the loss of individual California Ridgway's rail or California black rail within suitable habitat (i.e., Reach 14), construction activities including vegetation management requiring heavy equipment adjacent to tidal marsh areas within 700 feet (213 meters) or a distance determined in coordination with the U.S. Fish and Wildlife Service (USFWS) or the California Department of Fish and Wildlife (CDFW), shall be avoided during the breeding season: February 1 through August 31.</p> <p>If areas within or adjacent to rail habitat cannot be avoided during the breeding season, protocol-level surveys shall be conducted to determine rail nesting locations. The surveys shall focus on potential habitat that could be disturbed by construction activities during the breeding season to ensure that rails are not breeding in these locations.</p> <p>Survey methods for rails shall follow the <i>Site-Specific Protocol for Monitoring Marsh Birds</i>, or methods otherwise determined suitable in consultation with USFWS. The <i>Site-Specific Protocol for Monitoring Marsh Birds</i> was developed for use by USFWS and partners to improve bay-wide monitoring accuracy by standardizing surveys</p>	Project sponsor, qualified biologist, CDFW	Pre-construction surveys during the breeding season: February 1 through August 31	Qualified biologist if active nests are observed Coordinate with USFWS and/or CDFW as applicable	Ongoing during construction if active nests are observed

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<p>and increasing the ability to share data.<sup>2</sup> Surveys are concentrated during the approximate period of peak detectability, January 15 to March 25, and are structured to efficiently sample an area in three rounds of surveys by broadcasting calls of target species during specific periods of each survey round. Call broadcasts increase the probability of detection compared to passive surveys when no call broadcasting is employed. This protocol has since been adopted by Invasive Spartina Project (ISP) and Point Blue Conservation Science to survey California Ridgway's rails at sites throughout San Francisco Bay Estuary. A federal Endangered Species Act section 10(a)(1)(A) permit is required to conduct surveys. The survey protocol for California Ridgway's rail is summarized below.</p> <ul style="list-style-type: none"> <li>Previously used survey locations (points) should be used when available to maintain consistency with past survey results. Adjacent points should be at least 200 meters (656 feet) apart along transects in or adjacent to areas representative of the marsh. Points should be located to minimize disturbances to marsh vegetation. Up to eight points can be located on a transect.</li> <li>At each transect, three surveys (rounds) are to be conducted, with the first round of surveys initiated between January 15 and February 6, the second round performed February 7 to February 28, and the third round March 1 to March 25. Surveys should be spaced at least one week apart and the period between March 25 to April 15 can be used to complete surveys delayed by logistical or weather issues.</li> <li>Each point on a transect will be surveyed for 10 minutes each round. A recording of calls available from USFWS is broadcast at each point. The recording consists of 5 minutes of silence, followed by a 30-second recording of California Ridgway's rail vocalizations, followed by 30 seconds of silence, followed by a 30-second recording of California black rail, followed by 3.5 minutes of silence.</li> </ul> <p>If no breeding California Ridgway's rails or California black rails are detected during surveys and the resources agencies concur with the findings, or if their breeding territories can be avoided by 700 feet (213 meters) or by a distance established in</p>				

<sup>2</sup> Wood, J. K., N. Nur, L. Salas, and O. M. W. Richmond, *Site-Specific Protocol for Monitoring Marsh Birds: Don Edwards San Francisco Bay and San Pablo Bay National Wildlife Refuges*, prepared for the U.S. Fish and Wildlife Service, Pacific Southwest Region Refuge Inventory and Monitoring Initiative, Point Blue Conservation Science, Petaluma, CA, 2017.

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<p>coordination with the resources agencies, as explained above, then project activities may proceed at that location.</p> <p>If protocol surveys determine that breeding California Ridgway's rails or California black rails are present in the project area, the following measures would apply to project activities planned within 700 feet (213 meters) of a call center (i.e., presumed breeding location) during their breeding season (February 1 to August 31):</p> <ul style="list-style-type: none"> <li>• Project activities that can disrupt breeding rails shall not occur within 700 feet (213 meters) of an identified calling center. If the intervening distance across a major slough channel or across a substantial barrier between the California Ridgway's rail or California black rail calling center and any activity area is greater than 200 feet, work may proceed at that location within the breeding season only after CDFW approval.</li> <li>• With CDFW and USFWS approval, the 700-foot (213 meter) buffer distance may be reduced by the approved biologist to allow for Airport operations or project activities such as vehicle transit on the paved road, or other project activities that do not exceed the existing level of disturbance surrounding the project site (such as baseline noise and movements associated with typical Airport operations).</li> <li>• A USFWS- and CDFW-approved biologist with experience recognizing California Ridgway's rail and California black rail vocalizations shall be on site during construction activities occurring within 700 feet (213 meters) of suitable rail breeding habitat.</li> <li>• All biologists accessing the tidal marsh shall be trained in California Ridgway's rail and California black rail biology and vocalizations and will be familiar with both species of rail and their nests.</li> <li>• During approved project activities within 700 feet (213 meters) of a call center, if a California Ridgway's rail or California black rail vocalizes or flushes within 33 feet (10 meters), work shall be stopped by the approved biologist, and workers shall leave the immediate area carefully and quickly. An alternate route shall be selected that avoids this area, and the location of the sighting will be recorded to inform future activities in the area.</li> </ul>				

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<ul style="list-style-type: none"> <li>• All crews working in the marsh during rail breeding season shall be trained and supervised by a USFWS- and CDFW-approved rail biologist.</li> <li>• If any activities are conducted during the rail breeding season in California Ridgway's rail- or California black rail-occupied marshes, biologists shall have maps or GPS locations of the most current occurrences on the site and shall proceed cautiously and minimize time spent in areas where rails were detected.</li> <li>• Project activities within or adjacent to California Ridgway's rail or California black rail suitable habitat shall not occur within 2 hours before or after extreme high tides (6.5 feet or above, as measured at the Golden Gate Bridge).</li> <li>• All personnel walking in the marsh shall be required to limit time spent within 164 feet (50 meters) of an identified California Ridgway's rail or California black rail calling center to half an hour or less.</li> </ul> <p>If a USFWS or CDFW take permit is issued for the project to address potential impacts to California Ridgway's rail or California black rail, the above measures would be superseded by permit conditions.</p>				
<p><b>Mitigation Measure M-BI-1d: Nesting Bird Protection Measures.</b> Nesting birds and their nests shall be protected during construction by use of the following measures:</p> <ol style="list-style-type: none"> <li>1. A qualified wildlife biologist shall conduct pre-construction nesting bird surveys during the avian nesting breeding season (approximately February 15 to September 15) within 7 days prior to construction. Surveys shall be performed for the project area, vehicle and equipment staging areas, and suitable habitat within 500 feet of the project and staging areas to locate any active bird nests.</li> <li>2. If active nests are located during the pre-construction nesting bird surveys, the qualified wildlife biologist shall evaluate if the schedule of construction activities could affect the active nests and the following measures shall be implemented based on their determination: <ol style="list-style-type: none"> <li>a. If construction is not likely to affect the active nest, construction may proceed without restriction.</li> <li>b. If it is determined that construction may affect the active nest, the qualified biologist shall establish a no-disturbance buffer around the nest(s) and all project work would halt within the buffer until a qualified biologist</li> </ol> </li> </ol>	Project sponsor, qualified biologist, CDFW	Pre-construction surveys during the avian nesting breeding season would occur within 7 days prior to the start of construction; implementation ongoing during construction if active nests are observed	Qualified biologist if active nests are observed	Ongoing during construction if active nests are observed

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<p>determines the nest is no longer in use. Typically, these buffer distances are up to 250 feet for passerines and 500 feet for raptors; however, the buffers may be adjusted downward for some species, or if an obstruction, such as a building, is within line-of-sight between the nest and construction activities.</p> <p>c. Modifying nest buffer distances, allowing certain construction activities within the buffer, and/or modifying construction methods in proximity to active nests shall be done at the discretion of the qualified biologist and in coordination with the Airport, who would notify the California Department of Fish and Wildlife (CDFW). Necessary actions to remove or relocate an active nest(s) shall be coordinated with the Airport and approved by CDFW.</p> <p>d. Any work that must occur within established no-disturbance buffers around active nests shall be monitored by a qualified biologist. If adverse effects in response to project work within the buffer are observed and could compromise the nest, work within the no-disturbance buffer(s) shall halt until the nest occupants have fledged.</p> <p>e. Any birds that begin nesting within the project area and survey buffers after project construction activities have begun in that project area or buffer shall be assumed to be habituated to construction-related or similar noise and disturbance levels and no work exclusion zones shall be established around active nests in these cases; however, should birds nesting nearby begin to show disturbance associated with construction activities, no-disturbance buffers shall be established as determined by the qualified wildlife biologist.</p>				
<p><b>Mitigation Measure M-BI-1e: Roosting Bat Protection Measures.</b> A qualified biologist (as defined by the California Department of Fish and Wildlife [CDFW]<sup>3</sup>) who is experienced with bat surveying techniques (including auditory sampling methods), behavior, roosting habitat, and identification of local bat species shall be consulted prior to tree removal activities to conduct a pre-construction habitat assessment of the project area. The survey will focus on suitable roost trees to characterize potential bat habitat and identify bat sign (e.g., guano, urine staining, dead bats). No further action is required if bat habitat or bat sign is not detected within the project area.</p>	Project sponsor, qualified biologist, CDFW	Prior to demolition, building relocation, or tree work for the pre-construction habitat assessment	Qualified biologist if active roost sites are observed	Considered complete at end of construction

<sup>3</sup> CDFW defines the credentials of a *qualified biologist* within permits or authorizations issued for a project. Typical qualifications include a minimum of four years of academic training leading to a degree and a minimum of two years of experience conducting surveys for each species that may be present in the project area.

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<p>The following measures shall be implemented should potential roosting habitat or potentially active bat roosts be identified during the habitat assessment in trees to be removed for the proposed project:</p> <ol style="list-style-type: none"> <li>1. In areas identified as potential roosting habitat during the habitat assessment, any tree work (trimming or removal) shall occur when bats are active, approximately during the periods of March 1 to April 15 and August 15 to October 15. These dates avoid the bat maternity roosting season and period of winter torpor. However, if work occurs during these dates the following actions and items 2 through 6 shall be implemented to avoid impacts to bats.</li> <li>2. Depending on temporal guidance as defined below, the qualified biologist shall conduct pre-construction surveys of potential bat roost sites identified during the initial habitat assessment no more than 14 days before any tree trimming or removal.</li> <li>3. If active bat roosts or evidence of roosting is identified during pre-construction surveys, the qualified biologist shall determine the type of roost and species, if possible. A no-disturbance buffer shall be established around roost sites until the qualified biologist determines that they are no longer active. The size of the no-disturbance buffer shall be determined by the qualified biologist and will depend on the species present, roost type, existing screening around the roost site (such as dense vegetation or a building), and the type of construction activity to occur around the roost site.</li> <li>4. If special-status bat species or maternity or hibernation roosts are detected during these surveys, the qualified biologist shall develop appropriate species- and roost-specific avoidance and protection measures in coordination with CDFW. Such measures may include postponing the removal of trees or establishing exclusionary work buffers while the roost is active (e.g., 100-foot no-disturbance buffer).</li> <li>5. The qualified biologist shall be present during building demolition, relocation, or tree work if potential bat roosting habitat or active bat roosts are present. Buildings and trees with active roosts shall be disturbed only under clear weather conditions when precipitation is not forecast for three days and when daytime temperatures are at least 50 degrees Fahrenheit.</li> </ol>				

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<p>6. Trimming or removal of existing trees with potential bat roosting habitat or active (non-maternity or hibernation) bat roost sites shall follow a two-step removal process (which shall occur during the time of year when bats are active, according to Item 1 above, and depending on the type of roost and species present, according to Item 3 above).</p> <p>a. On the first day and under supervision of the qualified biologist, tree branches and limbs not containing cavities or fissures in which bats could roost shall be cut using chainsaws.</p> <p>b. On the following day and under the supervision of the qualified biologist, the remainder of the tree may be trimmed or removed, either using chainsaws or other equipment (e.g., excavator or backhoe).</p> <p>c. Felled roost trees shall remain on the ground for at least 24 hours prior to chipping, off-site removal, or other processing to allow any bats to escape, or be inspected once felled by the qualified biologist to ensure no bats remain within the tree and/or branches.</p>				
<p><b>Mitigation Measure M-BI-1f: Prevention of Fish Entrapment and Entrainment during Dewatering.</b> Fish rescue operations shall occur at Reaches 7 and 8 where dewatering and resulting isolation of fish may occur. <i>Fish Rescue and Salvage Plans</i> shall be developed by the Airport or its contractors and will include detailed procedures for fish rescue and salvage to minimize the number of individuals of listed fish species subject to stranding during placement and removal of sheet piles. The plans shall identify the appropriate procedures for removing fish from construction zones and preventing fish from reentering construction zones prior to dewatering and other construction activities. A draft plan shall be submitted to the fish and wildlife agencies for review and approval. An authorization letter from the National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service (USFWS), and the California Department of Fish and Wildlife (CDFW) will be required before in-water construction activities with the potential for stranding fish can proceed.</p> <p>All fish rescue and salvage operations shall be conducted under the guidance of a qualified fish biologist and in accordance with required permits. Each fish rescue plan shall identify the appropriate procedures for excluding fish from the construction zones, and procedures for removing fish if they become trapped. The</p>	Project sponsor, qualified biologist, contractor(s)	Fish rescue and salvage plan prior to start of construction; plan shall be implemented during construction	Project sponsor shall prepare and submit a fish rescue and salvage plan to the planning department for review and approval.	Considered complete at end of construction

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<p>primary procedure shall be to block off the construction area and use seines (nets) and/or dip nets to collect and remove fish. It is critical that fish rescue and salvage operations begin as soon as possible and be completed within 48 hours after isolation of a construction area to minimize potential predation and adverse water quality impacts (high water temperature, low dissolved oxygen) associated with confinement.</p> <p>Additional sheet pile, block nets, or other temporary exclusion methods (e.g., silt curtains) could be used to completely exclude fish or isolate the construction area prior to the fish removal process. The appropriate fish exclusion or collection method shall be determined by a qualified fish biologist, in consultation with a designated fish and wildlife agency biologist, based on site-specific conditions and construction methods. Capture, release, and relocation measures shall be consistent with the general guidelines and procedures set forth in Part IX of the most recent edition of the <i>California Salmonid Stream Habitat Restoration Manual</i><sup>4</sup> to minimize impacts on listed species of fish and their habitat. All fish rescue and salvage operations shall be conducted under the guidance of a qualified fisheries biologist. Personnel active in fish rescue efforts shall include at least one person with a 4-year college degree in fisheries or biology, or a related degree. This person also must have at least 2 years of professional experience in fisheries field surveys and fish capture and handling procedures.</p> <p>The following description includes detailed fish collection, holding, handling, and release procedures of the plan. Unless otherwise required by project permits, the construction contractor shall provide the following:</p> <ul style="list-style-type: none"> <li>• A minimum 7-day notice to the appropriate fish and wildlife agencies, prior to an anticipated activity that could result in isolating fish, such as installation of a sheet pile.</li> <li>• A minimum 48-hour notice to the appropriate fish and wildlife agencies of dewatering activities that are expected to require fish rescue.</li> <li>• Access for the appropriate fish and wildlife agency personnel to the construction site for the duration of implementation of the fish rescue plan, provided that personnel obtain a temporary badge and are escorted by Airport staff, as required by Federal Aviation Administration regulations.</li> </ul>				

<sup>4</sup> CDFW, *California Salmonid Stream Habitat Restoration Manual*, March 2004.



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<ul style="list-style-type: none"> <li>• Temporary cessation of dewatering if fish rescue workers determine that water levels may drop too quickly to allow successful rescue of fish.</li> <li>• A work site that is accessible and safe for fish rescue workers.</li> </ul> <p>Fish rescue and salvage operations shall occur prior to and during dewatering. If the enclosed area is wadable (less than 3 feet deep), fish can be herded out of the sheet pile enclosure by dragging a seine (net) through the enclosure, starting from the enclosed end and continuing to the sheet pile opening. Depending on conditions, this process may need to be conducted several times. After completing the fish herding process, the net or an exclusion screen shall be positioned at the sheet pile opening to prevent fish from reentering the enclosure. The net or screen mesh shall be no greater than 0.125 inch, with the bottom edge of the net (lead line) securely weighted down to prevent fish from entering the area by moving under the net. Screens shall be checked periodically and cleaned of debris to permit free flow of water.</p> <p>If the water depth within the sheet pile is too deep to effectively remove fish using these methods, dewatering activities may be used to reduce the water level to an appropriate and safe depth. Dewatering activities shall also conform to the guidelines specified below. Following each sweep of a seine through the enclosure, the fish rescue team shall do the following:</p> <ul style="list-style-type: none"> <li>• Carefully bring the ends of the net together and pull in the wings, ensuring the lead line is kept as close to the substrate as possible.</li> <li>• Slowly turn the seine bag inside out to reveal captured fish, ensuring fish remain in the water as long as possible before transfer to an aerated container.</li> </ul> <p>Dead fish of listed species shall be placed in sealed plastic bags with labels indicating species, location, date, and time of collection, and stored on ice. These specimens shall be frozen as soon as possible and provided to the appropriate fish and wildlife agencies, as specified in the permits. Sites selected for release of rescued fish outside of the construction area shall be similar in temperature to the area from which fish were rescued, contain ample habitat, and have a low likelihood of fish reentering the construction area or being impinged on exclusion nets/screens.</p> <p>Dewatering shall be performed in coordination with fish rescue operations as described above. A dewatering plan shall be submitted as part of the Storm Water</p>				

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<p>Pollution Prevention Plan/Water Pollution Control Program, detailing the location of dewatering activities, equipment, and discharge point. Dewatering pump intakes shall be screened to prevent entrainment of fish in accordance with NMFS screening criteria for salmonid fry<sup>5</sup> for diversions that are less than 40 cubic feet per second (cfs), including the following:</p> <ul style="list-style-type: none"> <li>• Perforated plate: screen openings shall not exceed 3/32 inch (2.38 mm), measured in diameter.</li> <li>• Profile bar: screen openings shall not exceed 0.0689 inch (1.75 mm) in width.</li> <li>• Woven wire: screen openings shall not exceed 3/32 inch (2.38 mm), measured diagonally (e.g., 6–14 mesh).</li> <li>• Screen material shall provide a minimum of 27% open area. During the dewatering process, a qualified biologist or fish rescue team shall remain onsite to observe the process and remove additional fish, using the rescue procedures described above.</li> </ul> <p>For diversions that are equal to or greater than 40 cfs, the project sponsor shall follow the dewatering guidance provided in Exhibit A, Department of Fish and Game Fish Screening Criteria, June 19, 2000, available at <a href="https://www.noaa.gov/sites/default/files/legacy/document/2020/Oct/07354626804.pdf">https://www.noaa.gov/sites/default/files/legacy/document/2020/Oct/07354626804.pdf</a>.</p> <p>Where fish rescue and salvage operations cannot be conducted effectively or safely by fish rescue workers, it may be necessary to begin the dewatering process prior to fish rescue. During the dewatering process, a qualified biologist or fish rescue team shall be onsite with the aim of minimizing the number of fish that become trapped in isolated areas or impinged on pump screen(s) or isolation nets, based on the professional judgment of the onsite fish biologist and the terms and conditions of the incidental take permit, if required. In the event that the proposed methods are found to be insufficient to avoid undue losses of fish, the qualified biologist shall modify these methods or implement alternative methods to minimize subsequent losses.</p> <p>Upon dewatering to water depths at which seining can effectively occur (e.g., less than 3 inches [0.1 meter]), the fish rescue team shall inspect the dewatered areas</p>				

<sup>5</sup> NMFS, *Fish Screening Criteria for Anadromous Salmonids, Southwest Region*, January 1997.

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<p>to locate any remaining fish. Collection by dip net, data recording, and relocation shall be performed as necessary according to the procedures outlined above. The fish rescue team shall notify the contractor when the fish rescue has been completed and construction can recommence. The results of the fish rescue and salvage operations (including date, time, location, comments, method of capture, fish species, number of fish, approximate age, condition, release location, and release time) shall be reported to the appropriate fish and wildlife agencies, as specified in the pertinent permits.</p>				
<p><b>Mitigation Measure M-BI-1g: Fish and Marine Mammal Protection during Pile Driving.</b> Prior to the start of any in-water construction that would require pile driving, the Airport shall prepare a National Marine Fisheries Service (NMFS)-approved and CDFW-approved sound attenuation monitoring plan to protect fish and marine mammals, and the approved plan shall be implemented during construction. This plan shall provide detail on the sound attenuation system, detail methods used to monitor and verify sound levels during pile driving activities (if required based on projected in-water noise levels), and describe best management practices to reduce impact pile-driving in the aquatic environment to an intensity level less than 183 dB (sound exposure level, SEL) impulse noise level for fish at a distance of 33 feet, and 160 dB (root mean square pressure level, RMS) impulse noise level or 120 dB (RMS) continuous noise level for marine mammals at a distance of 1,640 feet. The plan shall incorporate, but not be limited to, the following best management practices:</p> <ul style="list-style-type: none"> <li>• All in-water construction shall be conducted within the environmental work window between June 1 and November 30, designed to avoid potential impacts to fish species.</li> <li>• To the extent feasible, vibratory pile drivers shall be used for the installation of all support piles. Vibratory pile driving shall be conducted following the U.S. Army Corps of Engineers “Proposed Procedures for Permitting Projects that will Not Adversely Affect Selected Listed Species in California.” U.S. Fish and Wildlife Service and NMFS completed section 7 consultation on this document, which establishes general procedures for minimizing impacts to natural resources associated with projects in or adjacent to jurisdictional waters.</li> </ul>	Project sponsor, contractor(s)	Sound attenuation monitoring plan prior to the start of construction; plan shall be implemented during construction	Project sponsor shall prepare and submit a sound attenuation monitoring plan to the planning department for review and approval	Considered complete at end of construction

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<ul style="list-style-type: none"> <li>• A <i>soft start technique</i><sup>6</sup> to impact hammer pile driving shall be implemented, at the start of each workday or after a break in impact hammer driving of 30 minutes or more, to give fish and marine mammals an opportunity to vacate the area.</li> <li>• If during the use of an impact hammer, established NMFS pile driving thresholds are exceeded, a bubble curtain or other sound attenuation method as described in the NMFS-approved sound attenuation monitoring plan shall be utilized to reduce sound levels below the criteria described above. If NMFS sound level criteria are still exceeded with the use of attenuation methods, a NMFS-approved biological monitor shall be available to conduct surveys before and during pile driving to inspect the work zone and adjacent waters for marine mammals. The monitor shall be present as specified by the NMFS during impact pile driving and ensure that: <ul style="list-style-type: none"> <li>– The safety zones established in the sound monitoring plan for the protection of marine mammals are maintained.</li> <li>– Work activities are halted when a marine mammal enters a safety zone and resumed only after the animal has been gone from the area for a minimum of 15 minutes.</li> </ul> </li> </ul>				
<p><b>Mitigation Measure M-BI-2: Avoidance and Mitigation for Pickleweed Mat Sensitive Natural Community.</b> Prior to the start of construction in Sub-reaches 2A and 2B, and Reaches 4, 5, 6, 7, 9–11, and 13–15, the Airport shall retain a qualified biologist (i.e., a biologist experienced at identifying coastal saltmarsh vegetation) to clearly delineate the extent of pickleweed mat community within 20 feet of the project work area. Pickleweed mat shall be protected from the work area by drift fencing (e.g., orange construction fence), which shall be maintained throughout the construction period. A qualified biologist shall oversee the delineation and installation of fencing. Excavation, vehicular traffic, staging of materials, and all other project-related activity shall avoid non-project environmentally sensitive areas.</p> <p>If the pickleweed mat community cannot be avoided, any temporarily affected areas shall be restored to pre-construction conditions or better at the conclusion of construction activities that occur within 20 feet of the retained pickleweed mat in</p>	Qualified biologist, project sponsor, and contractor(s)	Prior to construction	Project sponsor to consult with the planning department to determine whether to implement the measure or modify based on site and construction details	Considered complete at end of construction

<sup>6</sup> A *soft start technique* is the release of the pile-driving hammer without hydraulic pressure.

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<p>accordance with California Department of Fish and Wildlife (CDFW) and San Francisco Bay Regional Water Quality Control Board (regional board) permits. Compensation for permanent impacts on the sensitive natural community shall be provided at a 1:1 or greater ratio, or as specified by U.S. Army Corps of Engineers, regional board, and/or CDFW. If impacts to prior mitigation sites occur, resource agencies may require a greater ratio (e.g., 2:1 or higher). Compensation for loss of pickleweed mat may be in the form of permanent creation, restoration, enhancement, or preservation of habitat. Compensation for loss of pickleweed mat may also be combined with compensation for permanent loss of wetlands under Mitigation Measure M-BI-5b: Avoidance of Impacts on Wetlands and Waters, providing that the wetland creation, restoration, enhancement, or preservation includes at least a 1:1 replacement ratio of pickleweed mat. To that end, the restoration sites shall, at a minimum, meet the following performance standards by the fifth year after restoration:</p> <ol style="list-style-type: none"> <li>1. Native vegetation cover shall be at least 70 percent of the baseline native vegetation cover in the impact area.</li> <li>2. No more cover by invasive species shall be present than in the baseline/impact area.</li> </ol> <p>Restoration shall be detailed in a Habitat Mitigation and Monitoring Plan, which shall be developed before the start of construction and in coordination with permit applications and/or conditions. At a minimum, the Plan shall include:</p> <ol style="list-style-type: none"> <li>1. Name and contact information for the property owner of the land on which the mitigation will take place;</li> <li>2. Identification of the water source for supplemental irrigation, if needed;</li> <li>3. Identification of depth to groundwater;</li> <li>4. Topsoil salvage and storage methods for areas that support special-status plants;</li> <li>5. Site preparation guidelines to prepare for planting, including coarse and fine grading;</li> <li>6. Plant material procurement, including assessment of the risk of introduction of plant pathogens through the use of nursery-grown container stock vs. collection and propagation of site-specific plant materials, or use of seeds;</li> <li>7. A planting plan outlining species selection, planting locations, and spacing for each vegetation type to be restored;</li> </ol>				

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<p>8. Planting methods, including containers, hydroseed or hydromulch, weed barriers, and cages, as needed;</p> <p>9. Soil amendment recommendations, if needed;</p> <p>10. An irrigation plan, with proposed rates (in gallons per minute), schedule (i.e., recurrence interval), and seasonal guidelines for watering;</p> <p>11. A site protection plan to prevent unauthorized access, accidental damage, and vandalism;</p> <p>12. Weeding and other vegetation maintenance tasks and schedule, with specific thresholds for acceptance of invasive species;</p> <p>13. Performance standards by which successful completion of mitigation can be assessed relative to a relevant baseline or reference site, and by which remedial actions will be triggered;</p> <p>14. Success criteria that shall include the minimum performance standards described above (e.g., at least 70 percent of the baseline native vegetation cover);</p> <p>15. Monitoring methods and schedule;</p> <p>16. Reporting requirements and schedule (e.g., annual reporting);</p> <p>17. Adaptive management and corrective actions to achieve the established success criteria; and</p> <p>18. An educational outreach program to inform operations and maintenance departments of local land management and utility agencies of the mitigation purpose of restored areas to prevent accidental damages.</p> <p>The Habitat Mitigation and Monitoring Plan and all field documentation, prepared in coordination with the appropriate regulatory agencies, shall be submitted to a designee from the Airport for review and approval prior to the issuance of any demolition, grading, or building permit for construction that would occur within 20 feet of the pickleweed mat sensitive natural community.</p>				

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<p><b>Mitigation Measure M-BI-5a: Avoidance of Impacts on Wetlands and Waters.</b></p> <p>The Airport and its contractors for the specific construction activity to be undertaken shall minimize impacts on waters of the United States and waters of the state, including wetlands, by implementing the following measures:</p> <ul style="list-style-type: none"> <li>• The proposed project shall be designed to avoid, to the extent practical, work within wetlands and/or waters under the jurisdiction of the U.S. Army Corps of Engineers (USACE), the San Francisco Bay Regional Water Quality Control Board (regional board), the California Department of Fish and Wildlife (CDFW) and the San Francisco Bay Conservation and Development Commission (BCDC). If applicable, permits or approvals shall be sought from the above agencies, as required. Where wetlands or other water features must be disturbed, the minimum area of disturbance necessary for construction shall be identified and the area outside avoided.</li> <li>• Before the start of construction within 50 feet of any wetlands and drainages, appropriate measures shall be taken to ensure protection of the wetland from construction runoff or direct impact from equipment or materials, such as the installation of a silt fence, and signs indicating the required avoidance shall be installed. No equipment mobilization, grading, clearing, or storage of equipment or machinery, or similar activity, shall occur until a qualified biologist has inspected and approved the fencing installed around these features. The construction contractor for the specific construction activity to be undertaken shall ensure that the temporary fencing is maintained until construction activities are complete. No construction activities, including equipment movement, storage of materials, or temporary spoils stockpiling, shall be allowed within the fenced areas protecting wetlands.</li> <li>• Where disturbance to jurisdictional wetlands or waters cannot be avoided, any temporarily affected jurisdictional wetlands or waters shall be restored to pre-construction conditions or better at the end of construction, in accordance with the requirements of USACE, regional board, and/or BCDC permits. Compensation for permanent impacts on wetlands or waters shall be provided at a 1:1 ratio, or as agreed upon by USACE, regional board, and BCDC. Compensation for loss of wetlands may be in the form of permanent creation, restoration, enhancement, or preservation of habitat. Any habitat creation or restoration must be subject to the restrictions in FAA Airport Circular 150/5200-</li> </ul>	Project sponsor	Prior to construction	Project sponsor shall avoid wetlands and waters and implement measures within 50 feet.	Considered complete at end of construction

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<p>33B, Hazardous Wildlife Attractants on or Near Airports. To that end, the restoration or compensation sites shall, at a minimum, meet the following performance standards by the fifth year after restoration:</p> <ol style="list-style-type: none"> <li>1) Wetlands restored or constructed as federal wetlands meet the applicable federal criteria for jurisdictional wetlands, and wetlands restored or constructed as state wetlands meet the state criteria for jurisdictional wetlands.</li> <li>2) No more cover by invasive species shall be present than in the baseline/impact area pre-project.</li> </ol> <p>Restoration and compensatory mitigation activities shall be described in the Habitat Mitigation and Monitoring Plan prescribed by Mitigation Measure M-BI-2, Avoidance and Mitigation for Pickleweed Mat Sensitive Natural Community.</p>				
<p><b>Mitigation Measure M-BI-5b: Compensation for Fill of Wetlands and Waters.</b></p> <p>The Airport shall provide compensatory mitigation for placement of fill associated with installation of new structures in San Francisco Bay at all applicable reaches and fill of the seasonal wetlands in Reach 2B, as further determined by the regulatory agencies with authority over these features during the permitting process.</p> <p>Compensation may include compensatory mitigation, shoreline improvements or intertidal/subtidal habitat enhancements through removal of chemically treated wood material (e.g., pilings, decking, etc.) by pulling, cutting, or breaking off piles at least 1 foot below mudline or removal of other unengineered debris (e.g., concrete-filled drums or large pieces of concrete), as well as creation, restoration, or enhancement of wetlands and waters.</p> <p>As a component of the resource agency permitting process, upon finalizing their wetland and aquatic habitat mitigation strategy, SFO shall prepare a Summary Mitigation Plan that states the project's complete mitigation proposal, describes the annual monitoring approach for on-site habitat elements and includes a map identifying in-water and nearshore project elements. If required by individual permits, the plan will be submitted for review to CDFW, NMFS, USFWS, BCDC and/or the Corps prior to construction. The plan will include comparable monitoring requirements for off-site mitigation sites proposed to be managed by SFO; however, such requirements are not needed for sites that are operated or</p>	Project sponsor	Prior to construction	Project sponsor in coordination with applicable agencies for which permits will be sought	Considered complete when bay related fill permits are issued and compensatory mitigation accepted by regulatory agencies



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managed by third parties (e.g., approved mitigation bank lands). Any compensatory mitigation, shoreline improvements, or habitat enhancements must be subject to the restrictions in FAA Airport Circular 150/5200-33B, Hazardous Wildlife Attractants on or Near Airports.				
<b>EIR SECTION 4.F, HYDROLOGY AND WATER QUALITY</b>				
<p><b>Mitigation Measure MHY1a: In-Water Construction Water Quality Management Plan.</b> The Airport or its construction contractor(s) shall implement an In-Water Construction Water Quality Management Plan (Plan). The Plan shall be reviewed and approved by Bay Pollution Prevention Program staff prior to commencing in-water construction activities. In order to avoid and/or minimize potential impacts to waters of the United States and state, water quality, and biological resources the following minimum construction BMPs would be implemented as part of the Plan. These minimum measures would be subject to modification and additions based upon regulatory and resource agency review:</p> <ul style="list-style-type: none"> <li>• Unless otherwise specified by the LTMS Program, in-water construction activities (including dredging, removal of structures, and pile installation) shall be restricted to the National Oceanic and Atmospheric Administration (NOAA) approved environmental work window (June 1 to November 30).</li> <li>• No debris, rubbish, creosote-treated wood, soil, silt, cement, concrete, or washings thereof, or other construction-related materials or wastes, oil, or petroleum products shall be placed in a location where it would be subject to erosion by rain, wind, or waves and allowed to enter jurisdictional waters, including as a result of fueling activities and storage of hazardous materials.</li> <li>• No fresh concrete or concrete washings shall enter into jurisdictional waters. Fresh concrete will be isolated until it no longer poses a threat to water quality using appropriate measures, including exclusion of poured concrete from jurisdictional waters, such as open San Francisco Bay waters or the wetted channel of San Bruno Channel and Millbrae Channel. Contractor shall use only designated concrete transit vehicle cleanout stations for cleanout.</li> <li>• Protective measures shall be utilized to prevent accidental discharges to waters during fueling, cleaning, and maintenance.</li> </ul>	Project sponsor and contractor(s)	In-Water Construction Water Quality Management Plan submitted prior to construction; plans and measures to be implemented during construction	Project sponsor or contractor(s) shall submit the In-Water Construction Water Quality Management Plan to BPPP staff for review and approval	Considered complete upon approval of In-Water Construction Water Quality Management Plan by the Bay Pollution Prevention Program staff

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<ul style="list-style-type: none"> <li>Floating booms shall be used to contain debris discharged into waters and any debris shall be removed as soon as possible, and no later than the end of each workday.</li> <li>To limit turbidity impacts, barges shall be kept closely alongside the dredge and seals shall be frequently checked for proper fit.</li> <li>Machinery or construction materials not essential for project improvements shall not be allowed at any time in the intertidal zone. The construction contractor shall be responsible for checking daily tide and current reports.</li> <li>Well-maintained equipment shall be used.</li> <li>A spill prevention contingency plan for hazardous waste spills into San Francisco Bay shall be prepared for review and approval by BPPP staff. The plan shall include, at a minimum, floating booms and absorbent materials to recover hazardous wastes.</li> <li>SFO or its contractor(s) shall prepare an Anchoring Plan that applies to all ships, barges, and other open water vessels and describes procedures for deploying, using, and recovering anchorages. The Anchoring Plan shall include, but not be limited to, the following elements: <ul style="list-style-type: none"> <li>Description of anchor set and anchor leg (wires, winches, and other support equipment).</li> <li>Description of vessels to be anchored and support tugs to be used.</li> <li>Description and delineation of safety zone and anchor zone, including identification and mapping all areas of biological significance and hard substrate found within the work area.</li> <li>Anchoring procedures.</li> <li>All elements of the Anchoring Plan shall be in compliance with U.S. Coast Guard regulations.</li> </ul> </li> </ul>				

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p><b>Mitigation Measure M-HY-1b: Implement Dewatering BMPs for In-Water Work.</b></p> <p>If dewatering effluent produced during construction of the shoreline protection system is to be discharged directly to San Francisco Bay, the construction specifications shall include a requirement that the construction contractor(s) prepare and implement a Water Quality Control Plan for Dewatering Activities (Plan). The Plan shall be reviewed and approved by BPPP staff prior to conducting dewatering activities. The plan shall specify, at a minimum, water quality monitoring to be conducted at least once daily no more than 1,000 feet from the point of discharge as well as the implementation of operational controls and/or BMPs for the treatment of sediment-laden water produced during dewatering activities. Operational controls include reducing the rate of discharge or periodically ceasing dewatering activities to allow suspended sediments to settle out of the water column in areas undergoing dewatering. BMPs could include, but not be limited to discharging water through filtration media, such as filter bags or a similar filtration device, installing in-water silt curtains or other sediment containment devices in shallow waters at the point of discharge to facilitate rapid settlement and the avoidance of dispersion to bay waters, or installing an onsite dewatering treatment system, such as settlement tanks that allow suspended solids to settle out of dewatering effluent prior to discharge. The discharge must also be applied at a sufficient distance from newly installed perimeter dike foundation or other areas that could be damaged or result in increases in turbidity or suspended sediment from the erosive action of dewatering discharges. BMPs developed and implemented shall remove sediment in a manner sufficient to meet the Water Quality Objective for turbidity as specified in the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). Specifically, receiving waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases from normal background light penetration or turbidity relatable to waste discharge shall not be greater than 10 percent in areas where natural turbidity is greater than 50 NTU and shall not be greater than 20 percent in areas where natural turbidity is less than 50 NTU.</p>	<p>Project sponsor and construction contractor(s)</p>	<p>Water Quality Control Plan for Dewatering Activities; plans and measures to be implemented during construction</p>	<p>Project sponsor or contractor(s) shall submit the Water Quality Control Plan for Dewatering Activities to the Bay Pollution Prevention Program staff for review and approval</p>	<p>Considered complete at end of construction</p>

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<b>INITIAL STUDY SECTION E.4, CULTURAL RESOURCES</b>				
<p><b>Mitigation Measure M-CR-2a: Accidental Discovery.</b> The following mitigation measure is required to avoid any potential adverse effect from the proposed project on accidentally discovered buried or submerged historical resources as defined in CEQA Guidelines section 15064.5(a) and (c).</p> <p><i>ALERT Sheet.</i> SFO shall distribute the Planning Department archeological resource “ALERT” sheet to the project prime contractor; to any project subcontractor (including demolition, excavation, grading, foundation, pile driving, etc. firms); or utilities firm involved in soils-disturbing activities within the project site. Prior to any soils-disturbing activities being undertaken, each contractor is responsible for ensuring that the “ALERT” sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, supervisory personnel, etc. SFO shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) confirming that all field personnel have received copies of the Alert Sheet.</p> <p><i>Discovery, Stop Work, and Notification.</i> Should any indication of an archeological resource be encountered during any soils-disturbing activity of the project, SFO shall immediately notify the ERO and shall immediately suspend any soils-disturbing activities in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken.</p> <p><i>Archeological Consultant Identification and Evaluation.</i> If the ERO determines that an archeological resource may be present within the project site, SFO shall retain the services of an archeological consultant. The archeological consultant shall advise the ERO as to whether the discovery is an archeological resource as well as if it retains sufficient integrity and is of potential scientific/historical/cultural significance. If an archeological resource is present, the archeological consultant shall identify, document, and evaluate the archeological resource. The archeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require, if warranted, specific additional measures to be implemented by SFO.</p> <p><i>Discovery Treatment Determination.</i> Measures might include preservation <i>in situ</i> of the archeological resource; an archeological monitoring program; an archeological testing program; and/or an archeological interpretation program. If an</p>	Project sponsor	Prior to and during soils-disturbing activities	Project sponsor shall distribute Alert sheet and shall submit a signed affidavit confirming the distribution to the ERO	Considered complete upon ERO receiving signed affidavit
	Project sponsor and archeological consultant at the direction of the ERO	Upon accidental discovery	In the event of accidental discovery, the project sponsor shall suspend soils-disturbing activities and notify the ERO. The sponsor shall retain a qualified archeological consultant at the direction of the ERO. The archeological consultant shall identify and evaluate the archeological	If preservation in place is feasible, complete when approved cultural resource preservation plan (CRPP) is implemented.  Considered complete when archeological consultant completes additional measures as directed by the ERO as warranted.

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<p>archeological interpretive, monitoring, and/or testing program is required, it shall be consistent with the Environmental Planning Division guidelines for such programs and shall be implemented immediately. The ERO may also require that SFO immediately implement a site security program if the archeological resource is at risk from vandalism, looting, or other damaging actions.</p> <p><i>Consultation with Descendant Communities.</i> On discovery of an archeological site associated with descendant Native Americans, the Overseas Chinese, or other potentially interested descendant group an appropriate representative of the descendant group and the ERO shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and to offer recommendations to the ERO regarding appropriate archeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archeological site.</p>			<p>resources and recommend actions for review and approval by the ERO.</p>	
<p><i>Archeological Data Recovery Plan.</i> An archeological data recovery program shall be conducted in accordance with an Archeological Data Recovery Plan (ADRP) if all three of the following apply: (1) a resource has potential to be significant, (2) preservation in place is not feasible, and (3) the ERO determines that an archeological data recovery program is warranted. The project archeological consultant, SFO, and ERO shall meet and consult on the scope of the ADRP. The archeological consultant shall prepare a draft ADRP that shall be submitted to the ERO for review and approval.</p> <p>The ADRP shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project.</p>	<p>The archeological consultant, project sponsor and project contractor(s) at the direction of the ERO in consultation with descendant community</p> <p>ERO, archeological consultant, project sponsor, and tribal representative (if requested)</p>	<p>During archeological treatment of resource associated with descendant community</p> <p>After determination by ERO that an archeological data recovery program is required</p>	<p>Consultation with ERO on identified descendant group. Descendant group provides recommendations, offered opportunity to monitor, and is given a copy of the Archeological Resources Report.</p> <p>Archeological consultant shall prepare an ADRP in consultation with ERO</p>	<p>Considered complete upon implementation of measures agreed upon during consultation</p> <p>Considered complete upon implementation of ADRP approved by ERO</p>

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>Destructive data recovery methods shall not be applied to portions of the archeological resources if nondestructive methods are practical.</p> <p>The scope of the ADRP shall include the following elements:</p> <ul style="list-style-type: none"> <li>• <i>Field Methods and Procedures.</i> Descriptions of proposed field strategies, procedures, and operations.</li> <li>• <i>Cataloging and Laboratory Analysis.</i> Description of selected cataloging system and artifact analysis procedures.</li> <li>• <i>Discard and Deaccession Policy.</i> Description of and rationale for field and post-field discard and deaccession policies.</li> <li>• <i>Security Measures.</i> Recommended security measures to protect the archeological resource from vandalism, looting, and non-intentionally damaging activities.</li> <li>• <i>Final Report.</i> Description of proposed report format and distribution of results.</li> <li>• <i>Curation.</i> Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.</li> </ul> <p><i>Human Remains and Funerary Objects.</i> The treatment of human remains and of funerary objects discovered during any soils disturbing activity shall comply with applicable State and federal laws. This shall include immediate notification of the San Mateo County Coroner and, in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC), which will appoint a Most Likely Descendant (MLD). The MLD will complete his or her inspection of the remains and make recommendations or preferences for treatment within 48 hours of being granted access to the site (Public Resources Code section 5097.98). The ERO also shall be notified immediately upon the discovery of human remains.</p> <p>SFO and ERO shall make all reasonable efforts to develop a Burial Agreement (Agreement) with the MLD, as expeditiously as possible, for the treatment and disposition, with appropriate dignity, of human remains and associated or unassociated funerary objects (as detailed in CEQA Guidelines section 15064.5(d)). The Agreement shall take into consideration the appropriate excavation, removal, recordation, scientific analysis, custodianship, curation, and final disposition of the</p>	<p>Project sponsor/ archeological consultant in consultation with the ERO, Medical Examiner, NAHC, and MLD as warranted</p>	<p>Discovery of human remains</p>	<p>Project archeologist or project sponsor shall notify ERO and the San Mateo County Coroner, who will contact NAHC as warranted.</p>	<p>Considered complete on finding by ERO that all state laws regarding human remains/burial objects have been adhered to, consultation with MLD is completed as warranted, that sufficient opportunity has been provided to the archeological consultant for any</p>

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<p>human remains and associated or unassociated funerary objects. If the MLD agrees to scientific analyses of the remains and/or associated or unassociated funerary objects, the archeological consultant shall retain possession of the remains and associated or unassociated funerary objects until completion of any such analyses, after which the remains and associated or unassociated funerary objects shall be reinterred or curated as specified in the Agreement.</p> <p>Both parties are expected to make a concerted and good faith effort to arrive at a Burial Agreement. However, if SFO and the MLD are unable to reach an Agreement on scientific treatment of the remains and/or funerary objects, the ERO, with cooperation of SFO, shall ensure that the remains and/or funerary objects are stored securely and respectfully until they can be reinterred on the project site, with appropriate dignity, in a location not subject to further or future subsurface disturbance, in accordance with the provisions of state law.</p> <p>Treatment of historic-period human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity, additionally, shall follow protocols laid out in the project archeological treatment document, and other relevant agreement established between SFO, the San Mateo County Coroner, and the ERO.</p>				<p>scientific/historical analysis of remains/funerary objects specified in the Agreement, and the agreed-upon disposition of the remains has occurred</p>
<p><i>Public Interpretation Plan.</i> The project archeological consultant shall submit a Public Interpretation Plan (PIP) if a significant archeological resource is discovered during a project. The PIP shall describe the interpretive product(s); locations or distribution of interpretive materials or displays; the proposed content and materials; persons or groups to be consulted for input on culturally appropriate interpretation, as applicable; the producers or artists of the displays or installation; and a long-term maintenance program. The PIP shall be sent to the ERO for review and approval. The PIP shall be implemented prior to occupancy of the project.</p>	<p>Archeological/interpretation consultant at the direction of the ERO will prepare PIP. Measure laid out in PIP are implemented by sponsor and consultant and Native American representative (if requested).</p>	<p>Following completion of treatment, analysis, and interpretation of by archeological consultant if a significant archeological resource is discovered.</p>	<p>Archeological consultant shall submit the PIP to ERO for review and approval.</p>	<p>PIP is complete on review and approval of ERO; interpretive program is complete on notification to ERO from the project sponsor that program has been implemented.</p>
<p><i>Archeological Resources Report.</i> The project archeological consultant shall submit a confidential draft Archeological Resources Report (ARR) to the ERO that evaluates the historical significance of any discovered archeological resource, describes the archeological and historical research methods employed in the archeological</p>	<p>Archeological consultant at the direction of the ERO</p>	<p>Following completion of treatment by archeological</p>	<p>Submittal of draft ARR to ERO for review and approval.</p>	<p>Complete on certification to ERO that copies of the</p>

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<b>Adopted Mitigation Measures</b>	<b>Implementation Responsibility</b>	<b>Mitigation Schedule</b>	<b>Monitoring/Reporting Responsibility</b>	<b>Monitoring Actions/ Completion Criteria</b>
<p>monitoring/data recovery program(s) undertaken, and discusses curation arrangements.</p> <p>Once approved by the ERO, copies of the approved ARR shall be distributed as follows: California Archeological Site Survey Northwest Information Center (NWIC) shall receive one copy, and the ERO shall receive a copy of the transmittal of the ARR to the NWIC. The environmental planning division of the planning department shall receive one bound hardcopy of the ARR. Digital files that shall be submitted to the environmental division include an unlocked, searchable PDF version of the ARR, GIS shapefiles of the site and feature locations, any formal site recordation forms (CA DPR 523 series), and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. The PDF ARR, GIS files, recordation forms, and/or nomination documentation should be submitted via USB or other stable storage device. If a descendant group was consulted during archeological treatment or will be consulted in the development of interpretive materials, a PDF of the ARR shall be provided to the representative of the descendant group.</p> <p><i>Curation.</i> If archeological data recovery is undertaken, materials and samples of future research value from significant archeological resources shall be permanently curated at a facility approved by the ERO.</p>		consultant as determined by the ERO	Distribution of the approved ARR by the archeological consultant.	approved ARR have been distributed
	Project archeologist prepares collection for curation and project sponsor pays for curation costs	Upon acceptance by the ERO of the final report	Upon submittal of the collection for curation the sponsor or archeologist shall provide a copy of the signed curatorial agreement to the ERO.	Considered complete upon acceptance of the collection by the curatorial facility



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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<p><b>Mitigation Measure M-CR-2b: Archeological Testing.</b> Based on a reasonable presumption that buried or submerged archeological resources that qualify as historical resources under CEQA may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effects from the proposed project on such archeological resources.</p> <p>In consultation with the ERO, SFO shall retain the services of an archeological consultant with demonstrated geoarcheological expertise. The archeological consultant shall undertake an archeological testing program as specified herein. In addition, the consultant shall be available to conduct an archeological monitoring and/or data recovery program if required pursuant to this measure. The archeological consultant's work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer (ERO). All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment and shall be considered draft reports subject to revision until final approval by the ERO. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less-than-significant-level potential effects on a significant archeological resource as defined in CEQA Guidelines section 15064.5(a)(c).</p>	Project sponsor, qualified archeologist and construction contractor(s) at the direction of the ERO	Prior to issuance of construction permits and throughout the construction period	Project Sponsor shall retain archeological consultant to undertake archeological testing program in consultation with ERO.	Complete when Project Sponsor retains qualified archeological consultant
<p><i>Archeological Testing Program.</i> The purpose of the archeological testing program will be to determine to the extent possible the presence or absence of archeological resources and to identify and to evaluate whether any archeological resource encountered on the site constitutes an historical resource under CEQA.</p> <p>The archeological testing program shall be conducted in accordance with an approved Archeological Testing Plan (ATP). The archeological consultant and the ERO shall consult on the scope of the ATP, which shall be approved by the ERO prior to any project-related soils disturbing activities commencing. The ATP shall be submitted first and directly to the ERO for review and comment and shall be considered a draft subject to revision until final approval by the ERO. The archeologist shall implement the approved testing as specified in the approved ATP prior to and/or during construction.</p>	Project sponsor's qualified archeological consultant and construction contractor(s) at the direction of the ERO	Prior to issuance of construction permits and throughout the construction period	Archeological consultant shall submit a draft ATP to the ERO for review and approval.	Considered complete after implementation of approved ATP and review and approval of archeological testing results memo by ERO

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<p>The ATP shall identify the property types of the expected archeological resource(s) that potentially could be adversely affected by the proposed project, lay out what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. The ATP shall also identify the testing method to be used, the depth or horizontal extent of testing, and the locations recommended for testing and shall identify archeological monitoring requirements for construction soil disturbance as warranted.</p> <p><i>Discovery Treatment Determination.</i> At the completion of the archeological testing program, the archeological consultant shall submit a written summary of the findings to the ERO. The findings memo shall describe and identify each resource and provide an initial assessment of the integrity and significance of encountered archeological deposits.</p> <p>If the ERO in consultation with the archeological consultant determines that a significant archeological resource is present and that the resource could be adversely affected by the proposed project, the ERO, in consultation with SFO, shall determine whether preservation of the resource in place is feasible. If so, the proposed project shall be re-designed so as to avoid any adverse effect on the information potential or other characteristics that were the basis for determining the archeological resource to be significant, and the archeological consultant shall prepare a cultural resource preservation plan (CRPP), which shall be implemented by SFO during construction. The consultant shall submit a draft CRPP to the planning department for review and approval.</p> <p>If preservation in place is not feasible, a data recovery program shall be implemented, unless the ERO determines that the archeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible. The ERO in consultation with the archeological consultant shall also determine if additional treatment is warranted, which may include additional testing and/or construction monitoring.</p> <p><i>Consultation with Descendant Communities.</i> On discovery of an archeological site associated with descendant Native Americans, the Overseas Chinese, or other potentially interested descendant group an appropriate representative of the descendant group and the ERO shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field</p>	<p>Archeological consultant, project sponsor and project contractor(s) at the direction of the ERO</p>	<p>During archeological treatment of resource associated with</p>	<p>Consultation with ERO on identified descendant group. Descendant group provides</p>	<p>Considered complete upon implementation of measures agreed</p>

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<b>Adopted Mitigation Measures</b>	<b>Implementation Responsibility</b>	<b>Mitigation Schedule</b>	<b>Monitoring/Reporting Responsibility</b>	<b>Monitoring Actions/ Completion Criteria</b>
<p>investigations of the site and to offer recommendations to the ERO regarding appropriate archeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archeological site. A copy of the Archeological Resources Report (ARR) shall be provided to the representative of the descendant group.</p> <p><i>Archeological Data Recovery Plan.</i> An archeological data recovery program shall be conducted in accordance with an Archeological Data Recovery Plan (ADRP) if all three of the following apply: (1) a resource has potential to be significant, (2) preservation in place is not feasible, and (3) the ERO determines that an archeological data recovery program is warranted. The archeological consultant, SFO, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archeological resources if nondestructive methods are practical.</p> <p>The scope of the ADRP shall include the following elements:</p> <ul style="list-style-type: none"> <li>• Field Methods and Procedures. Descriptions of proposed field strategies, procedures, and operations.</li> <li>• Cataloging and Laboratory Analysis. Description of selected cataloging system and artifact analysis procedures.</li> <li>• Discard and Deaccession Policy. Description of and rationale for field and post-field discard and deaccession policies.</li> <li>• Security Measures. Recommended security measures to protect the archeological resource from vandalism, looting, and non-intentionally damaging activities.</li> <li>• Final Report. Description of proposed report format and distribution of results.</li> </ul>	<p>in consultation with descendant community</p> <p>ERO, archeological consultant, project sponsor, and tribal representative (if requested)</p>	<p>descendant community</p> <p>After determination by ERO that an ADRP is required</p>	<p>recommendations, offered opportunity to monitor, and is given a copy of the ARR.</p> <p>Archeological consultant submits ADRP to ERO for review and approval.</p>	<p>upon during consultation</p> <p>Considered complete upon implementation of ADRP approved by ERO</p>

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<ul style="list-style-type: none"> <li>● Curation. Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.</li> </ul> <p><i>Human Remains and Funerary Objects.</i> The treatment of human remains and funerary objects discovered during any soils disturbing activity shall comply with applicable State and federal laws. This shall include immediate notification of the San Mateo County Coroner and, in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission, which will appoint a Most Likely Descendant (MLD). The MLD will complete his or her inspection of the remains and make recommendations or preferences for treatment within 48 hours of being granted access to the site (Public Resources Code section 5097.98). The ERO also shall be notified immediately upon the discovery of human remains.</p> <p>SFO and ERO shall make all reasonable efforts to develop a Burial Agreement (Agreement) with the MLD, as expeditiously as possible, for the treatment and disposition, with appropriate dignity, of human remains and associated or unassociated funerary objects (as detailed in CEQA Guidelines section 15064.5(d)). The Agreement shall take into consideration the appropriate excavation, removal, recordation, scientific analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. If the MLD agrees to scientific analyses of the remains and/or associated or unassociated funerary objects, the archeological consultant shall retain possession of the remains and associated or unassociated funerary objects until completion of any such analyses, after which the remains and associated or unassociated funerary objects shall be reinterred or curated as specified in the Agreement.</p> <p>Nothing in existing state regulations or in this mitigation measure compels SFO and the ERO to accept treatment recommendations of the MLD. However, if the ERO, SFO, and MLD are unable to reach an agreement on scientific treatment of the remains and associated or unassociated funerary objects, the ERO, with cooperation of SFO, shall ensure that the remains associated or unassociated funerary objects are stored securely and respectfully until they can be reinterred on the property, with appropriate dignity, in a location not subject to further or future subsurface disturbance.</p>	Project sponsor/ archeological consultant in consultation with the ERO, Medical Examiner, NAHC, and MLD as warranted	In the event that human remains are uncovered during the construction period	Project archeologist or project sponsor shall notify ERO and the San Mateo County Coroner, who will contact NAHC as warranted.	Considered complete on finding by the Environmental Review Officer that all state laws regarding human remains/burial objects have been adhered to, consultation with MLD is completed as warranted, that sufficient opportunity has been provided to the archeological consultant for any scientific/historical analysis of remains/funerary objects specified in the agreement, and the agreed-upon disposition of the remains has occurred

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Adopted Mitigation Measures	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/ Completion Criteria
<p>Treatment of historic-period human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity, additionally, shall follow protocols laid out in the project's archeological treatment documents, and in any related agreement established between SFO, the San Mateo County Coroner, and the ERO.</p> <p><i>Archeological Public Interpretation Plan.</i> The project archeological consultant shall submit an Archeological Public Interpretation Plan (APIP) if a significant archeological resource is discovered during a project. The APIP shall describe the interpretive product(s); locations or distribution of interpretive materials or displays; persons or groups consulted in the development of interpretive content; the proposed content and materials; the producers or artists of the displays or installation; and a long-term maintenance program. The APIP shall be sent to the ERO for review and approval. The APIP shall be implemented prior to occupancy of the project.</p>	<p>Archeological/interpretation consultant at the direction of the ERO will prepare PIP. Measure laid out in PIP are implemented by sponsor and consultant. Native American representative (if requested)</p>	<p>Following completion of treatment, analysis, and interpretation of by archeological consultant if a significant archeological resource is discovered</p>	<p>Archeological consultant shall submit the PIP to ERO for review and approval.</p>	<p>PIP is complete on review and approval of ERO. Interpretive program is complete on certification to ERO that program has been implemented</p>
<b>INITIAL STUDY SECTION E.5, TRIBAL CULTURAL RESOURCES</b>				
<p><b>Mitigation Measure M-TCR-1: Tribal Cultural Resources Program.</b></p> <p><i>Preservation in Place.</i> In the event of the discovery of an archeological resource of Native American origin, the Environmental Review Officer (ERO), SFO, and the tribal representative, shall consult to determine whether preservation in place would be feasible and effective in preserving the cultural values represented by the resource. If it is determined that preservation-in-place of the tribal cultural resource (TCR) would be both feasible and effective, then the archeological consultant shall consult with tribal representative to incorporate measures (e.g., placement of an on-site marker of the location of the resource, land acknowledgement in public materials, or registration of the resource in NAHC Sacred Lands Files) for the preservation of tribal cultural values represented by the resource, in the cultural resource preservation plan (CRPP). The consultant shall submit a draft CRPP to Planning for review and approval. The CRPP, including identified tribal cultural resource preservation measures, shall be implemented by SFO prior to and during construction.</p>	<p>Project sponsor archeological consultant, and ERO, in consultation with the local Native American representatives</p>	<p>During construction for identified measures</p>	<p>Planning department/ project sponsor and Native American tribal representative</p>	<p>Considered complete if no tribal cultural resource is identified, or tribal cultural resource is identified and implementation of identified tribal cultural resource measures</p>

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<b>Adopted Mitigation Measures</b>	<b>Implementation Responsibility</b>	<b>Mitigation Schedule</b>	<b>Monitoring/Reporting Responsibility</b>	<b>Monitoring Actions/Completion Criteria</b>
<p><i>Interpretive Program.</i> If the ERO, in consultation with the affiliated Native American tribal representatives and SFO, determines that preservation-in-place of the tribal cultural resources is not a sufficient or feasible option, then archeological data recovery shall be implemented as required by the ERO and in consultation with affiliated Native American tribal representatives. In addition, SFO shall develop and implement an interpretive program, in consultation with affiliated tribal representatives, that includes interpretation of the tribal cultural values represented by the resource. A Public Interpretation Plan (PIP) prepared in consultation with the ERO and affiliated tribal representatives, at a minimum, and approved by the ERO, would be required to guide the interpretive program. This interpretive plan may be combined with the archeological PIP (described under Section E.4, Cultural Resources, under Mitigation Measure M-CR-2a). The plan shall identify, as appropriate, proposed locations for installations or displays, the proposed content and materials of those displays or installation, the producers or artists of the displays or installation, and a long-term maintenance program. The interpretive program may include artist installations (by local Native American artists if requested during consultation), oral histories with local Native Americans, cultural displays and interpretation, and educational panels or other informational displays. Native Americans who participate substantially in interpretive efforts shall be offered compensation for their involvement. Upon approval by the ERO and affiliated Native American tribal representatives, and prior to completion of the project, the interpretive program shall be implemented by SFO.</p>				

**NOTES:**

<sup>a</sup> Definitions of MMRP Column Headings:

- *Adopted Mitigation Measures:* Full text of the mitigation measure(s) copied verbatim from the final CEQA document.
- *Implementation Responsibility:* Entity who is responsible for implementing the mitigation measure. In most cases this is the project sponsor and/or projects sponsor's contractor(s)/consultant and at times under the direction of the planning department.
- *Mitigation Schedule:* Identifies milestones for when the actions in the mitigation measure need to be implemented.
- *Monitoring/Reporting Responsibility:* Identifies who is responsible for monitoring compliance with the mitigation measure and any reporting responsibilities. In most cases it is the planning department who is responsible for monitoring compliance with the mitigation measure. If a department or agency other than the planning department is identified as responsible for monitoring, there should be an express agreement between the planning department and that other department/agency. In most cases the project sponsor, their contractor(s), or consultant are responsible for any reporting requirements.
- *Monitoring Actions/Completion Criteria:* Identifies the milestone at which the mitigation measure is considered complete. This may also identify requirements for verifying compliance.