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October 21, 2022

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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

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.

## 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.

**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.

### **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.

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.

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.

### 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.

**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

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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).

Golden Gate Bridge). This is when the marsh plain is inundated and protective cover for CCR/CBR is limited.

## 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.

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.

## 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.

**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>.

## 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.)

## 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.

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,  
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#### **ATTACHMENTS**

1. CDFW Fish Screening Criteria

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## 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).
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