# EXHIBIT A

# SAFER Bay Board of Director Findings Regarding the SAFER Bay Project

## 1. Introduction

### 1.1 Overview and Organization

This document presents the Findings of Fact for the Final Environmental Impact Report (Final EIR) of the Strategy to Advance Flood Protection, Ecosystems, and Recreation along San Francisco Bay Project (SAFER Bay Project or Project). The content and format of the Findings of Fact are designed to meet the requirements of the California Environmental Quality Act (CEQA). The Final EIR identifies significant environmental effects that would result from the implementation of the Project, as well as potential alternatives to the Project. For each significant effect of the Project identified in the Final EIR, the San Francisquito Creek Joint Powers Authority (SFCJPA) is adopting one or more of the findings as provided in CEQA and specified in Section 15091 of Title 14 of the California Code of Regulations (CEQA Guidelines). For most significant effects, SFCJPA finds that the mitigation measures identified in the Final EIR and adopted by SFCJPA avoid or substantially lessen the significant effects to a less-than-significant level. As provided in Section 15093 of the CEQA Guidelines, SFCJPA is balancing the economic, legal, social, technological, or other benefits of the Project against the unavoidable environmental effects. Regarding those unavoidable effects, SFCJPA is adopting a Statement of Overriding Considerations.

SFCJPA also adopts a Mitigation Monitoring and Reporting Plan (MMRP) for the Project. SFCJPA finds that the MMRP, which is incorporated by reference and made a part of these findings, meets the requirements of Public Resources Code Section 21081.6 by providing for the implementation and monitoring of measures intended to mitigate potentially significant effects of the Project. Pursuant to Public Resources Code Section 21082.1(c)(3), SFCJPA finds that the Final EIR reflects SFCJPA's independent judgment as the Lead Agency for the Project. The Findings of Fact are organized into the following sections:

- Section 1: Introduction.
- Section 2: Project Description and Objectives.
- Section 3: Findings Regarding Independent Review and Judgement
- Section 4: Less-Than-Significant Environmental Effects; Mitigation Incorporated.
- Section 5: Significant and Unavoidable Environmental Effects.

- Section 6: Findings Regarding Project Alternatives.

The MMRP and Statement of Overriding Considerations are incorporated by reference and are provided under a separate cover.

## 1.2 Statutory Requirements

CEQA, and particularly the CEQA *Guidelines*, require that:

(a) No public agency shall approve or carry out a project for which an EIR has been certified which identified one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:

   a. Changes or alterations have been required in, or incorporated into the project, which avoid of substantially lessen the significant environmental effect as identified in the Final EIR.

   b. Such changes or alterations are within the responsibility and jurisdiction of another public agency. Such changes have been adopted by another other agency or can and should be adopted by another agency.

   c. Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures of project alternatives identified in the Final EIR.

For those significant effects that SFCJPA determines are not feasible to mitigate to a less-than-significant level, SFCJPA is required to find that specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment (see Public Resources Code Section 21081(b)). The CEQA *Guidelines* state in Section 15093 that:

> "If the specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered 'acceptable.'"

## 1.3 Record of Proceedings

For purposes of CEQA and these Findings of Fact, the records of proceedings for SFCJPA's decisions on the Project consist of: (a) matters of common knowledge to SFCJPA, including, but not limited to, federal, state and local laws and regulations and policies; and (b) the following documents, which are in custody of the San Francisquito Creek Joint Powers Authority, 750 Menlo Avenue, Suite 250, Menlo Park:

- The Responses to Comments document for the Strategy to Advance Flood Protection, Ecosystems, and Recreation along San Francisco Bay Project (RTC document) and the Draft Environmental Impact Report for the Strategy to Advance Flood Protection, Ecosystems, and Recreation along San Francisco Bay Project (Draft EIR), which together comprise the Final EIR for the Strategy to Advance Flood Protection, Ecosystems, and Recreation along San Francisco Bay Project (Final EIR);

- Notice of Preparation (NOP) and other public notices issued by SFCJPA in conjunction with the Project;

- All testimony, documentary evidence, and correspondence submitted in response to the Draft EIR by agencies or members of the public during the public comment period on the Draft EIR and responses to those comments (Final EIR Chapter 3 and Appendix RTC-1);
- MMRP;
- All findings, statements of overriding consideration, and resolutions adopted by SFCJPA in connection with the Project, and documents cited or referred to therein;
- All final technical reports and addenda, studies, memoranda, maps, correspondence and all planning documents prepared by SFCJPA or SFCJPA's consultants relating to the Project;
- All documents submitted to SFCJPA by agencies or members of the public in connection with development of the Project;
- All actions of the Board of Directors with Respect to the Project;
- All references included in the Draft EIR;
- Applicable local general plans and related environmental analyses;
- Meeting agenda, minutes and staff reports of SFCJPA; and
- Other documents regarding coordination and consultation with the public and public agencies and other documents designated by SFCJPA.

## 1.4 Identification of Environmental Setting for Use in Determining Significance of Effects of the Project

The CEQA *Guidelines* require environmental impact reports to include a description of the physical environmental conditions in the vicinity of the project and that "[t]his environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." (CEQA Guidelines, Section 15125, subd. (a).)

Consistent with the CEQA *Guidelines*, the environmental setting discussion for each environmental topic describes the baseline physical environmental conditions for each of the Project components that could have associated physical environmental impacts. For purposes of the analyses in the EIR, baseline conditions are those that existed at the time that the NOP was published in accordance with CEQA *Guidelines* Section 15126.2 (April 2022). With some environmental resources, such as hydrology, the baseline considered was equivalent to anticipated conditions at various times of the year due to the seasonal and annual fluctuations in the conditions of various resources. This anticipated condition was based on review of historical data and information about the conditions of the resource.

Impacts are typically evaluated in terms of changes that would be attributed to construction, operation and maintenance of Project components as compared to existing conditions as well as, where appropriate, relative to conditions that would exist without implementation of the Project in the future.

# 2. Project Description and Objectives

## 2.1 Project Description

The Project includes shoreline protection, restoration, and recreational features, briefly described below. The SAFER Bay Project site is located west of San Francisco Bay along approximately 7 miles of shoreline between O'Connor Street in East Palo Alto at San Francisquito Creek and Redwood City near the Menlo Park city boundary to the northwest (refer to Figure S-1 of the EIR). The Project would connect to and is consistent with design criteria for SFCJPA's completed San Francisquito Creek Flood Protection and Ecosystem Restoration Project. The Project is divided into eight reaches[1] based on local geography and hydrology, shown on Figure S-1 of the EIR:

- South of Bay Road—East Palo Alto (South of Bay Road)
- North of Bay Road—East Palo Alto (North of Bay Road)
- Dumbarton Approach
- Substation and Marsh Restoration
- Tech Campus
- Bayfront Expressway
- Bedwell Bayfront Park
- Marsh Road

The Project is located within the cities of East Palo Alto, Menlo Park, and Redwood City on both public and privately owned property. The Project includes actions within the Don Edwards San Francisco Bay National Wildlife Refuge (Refuge), including Refuge-managed land in the Ravenswood Pond Complex; in Faber and Laumeister marshes (owned by the City of Palo Alto and managed by the Refuge); and in the Ravenswood Open Space Preserve (owned by Midpeninsula Regional Open Space District). The Project also includes actions within land owned by the State of California (within the State Route [SR] 84 right-of-way at the western approach to the Dumbarton Bridge, managed by the California Department of Transportation [Caltrans]), the City and County of San Francisco (managed by the San Francisco Public Utilities Commission), Cargill, Incorporated, and others. Appendix APN in the Draft EIR lists the Assessor Parcel Numbers of properties that are wholly or partially within the footprint of the Project site.

**Table S-1** in the Draft EIR summarizes key features of the SAFER Bay Project by reach.

- ***Shoreline Protection Features***. The Project is being designed to satisfy current FEMA coastal flood protection requirements (i.e., the existing 100-year flood event with required freeboard for FEMA accreditation) and up to an additional 3.5 feet of elevation to account for anticipated sea level rise as well as other applicable FEMA design criteria. The design criteria are consistent with the intermediate scenarios described in the State of California Sea Level Rise Guidance: 2024 Science and Policy Update, as well as San Mateo County Flood and Sea Level Rise Resiliency District June 2023 Planning Policy Guidance. The Project includes the following features to protect parts of Menlo Park and East Palo Alto from coastal flooding: levees, floodwalls, hybrid shoreline protection features, and flood risk reduction structures. Refer to Section 2.4.2 in Chapter 2, *Project Description*, for descriptions of the proposed shoreline protection design as well as changes to infrastructure (e.g., stormwater management facilities, electrical utilities) by reach.
- ***Habitat Improvements***. Major habitat improvements include tidal salt marsh restoration, enhancement of habitat for western snowy plover, creation of seabird islands in the Ravenswood Pond Complex,

[1] As used here, *reach* refers to a linear segment of the Project.

and creation/restoration of salt marsh-upland transition habitat within the Ravenswood Pond Complex and elsewhere within the Project site. Refer to Figure S-2 of the Draft EIR for an overview of habitat improvements and to Section 2.4.1, Proposed Shoreline Protection, Habitat Improvement, and Recreation Features, for a detailed description of habitat improvements.

- ***Recreational Features***. The Project overlaps with segments of the San Francisco Bay Trail (Bay Trail) and other trails and includes improvements to shoreline access. Where the Bay Trail would be replaced or extended, the segments would incorporate design standards adopted for the Bay Trail and designed in compliance with the Americans with Disabilities Act. By elevating shoreline trails, the Project would also reduce the current trails' exposure to flooding, thereby increasing public access and trail longevity. The reconstructed portions of the Bay Trail along the new levee tops would be paved; would include signage, viewing points, benches, and access points, with specific locations to be determined in future detailed designs and in coordination with stakeholders.

Consistent with CEQA, the EIR contains both project-level and program-level evaluations based on the level of design and construction information available. The programmatic evaluations herein have used conservative assumptions to facilitate future project-level evaluations.

Refer to Table 2-4 in Chapter 2 of the Draft EIR, *Project Description*, for the Project's full anticipated implementation schedule, which is planned to occur in staggered phases.

## 2.2 Modifications to the Project

The SFCJPA has determined that it will approve select features of the Modified Footprint Alternative in lieu of the corresponding features of the Project as described in Draft EIR Chapter 2 as well as an environmental commitment, described below.

### 2.2.1 Incorporation of Features of the Modified Footprint Alternative

Figure RTC-1 in the Final EIR presents the Project location and components with inclusion of the proposed modifications. Table 4-2 (Draft EIR page 4-18) presents an overview of the Modified Footprint Alternative, including the above components. The Modified Footprint Alternative is described and evaluated in Draft EIR pages 4-14 through 4-25. Within the Substation and Marsh Restoration Reach, the proposed Project will incorporate floodwalls and a flood gate at the Ravenswood Substation access point (shown on Figure RTC-1). Incorporation of this configuration would provide flood protection to the Ravenswood Substation irrespective of the timing and design of Caltrans' plans for providing flood protection for the western approach to the Dumbarton Bridge. Within the Tech Campus Reach, the Project would include a floodwall with a wall top elevation of 18- to 19-feet North American Vertical Datum of 1988 (NAVD88). The floodwall would be constructed between SR 84 and the eastern side of the Meta Headquarters, around a section of slough that receives flows from Caltrans' Ravenswood Pump Station (refer to Figure RTC-1 of the Draft EIR). Ravenswood Pump Station operations (as well as an adjacent gravity stormwater drainage feature) would be incorporated into the floodwall design to allow discharges to the slough; consequently, there would be no need for a pump station through the levee (as proposed under the Project for the Tech Campus Reach). An approximately 600-foot pedestrian bridge (refer to red line on Figure RTC-1 in the Final EIR) would be constructed between the proposed segment of Bay Trail adjacent to and north of SR 84 and the existing Public Shoreline Access Trail around Meta Headquarters. The trail that currently follows the section of slough between the Meta Headquarters and

SR 84 would be decommissioned (displaced by the floodwall). These changes to the Project would reduce permanent impacts to marsh by 2.77 acres.

### 2.2.1 Incorporation of Environmental Commitment

In addition to the above modifications, the SFCJPA is including the following as Environmental Commitment AIR-2 in the MMRP to potentially reduce construction-related air pollutant emissions and construction noise impacts:

- The Project may utilize electric or zero-emission construction equipment where such equipment is (a) commercially available, (b) capable of performing the required construction function, (c) feasible given Project-specific construction needs and site conditions, and (d) comparable in costs to traditional construction equipment.

## 2.3 Project Need and Objectives

### 2.3.1 Need for the Project

Currently, parts of East Palo Alto and Menlo Park are exposed to coastal flooding from San Francisco Bay, and this flood hazard is expected to worsen with sea level rise. These areas are within the existing 1-percent annual chance (commonly referred to as the 100-year flood event) flood hazard area as mapped by the Federal Emergency Management Agency (FEMA; refer to Appendix FEMA of the Draft EIR for a map of flood hazard zones near the SAFER Bay Project). With respect to habitat, according to the *Baylands Ecosystem Habitat Goals Science Update 2015*, between the years 1800 and 1998, 79 percent of San Francisco Bay tidal marshes were lost to diking and filling.[2] Tidal marsh habitat provides nesting and foraging habitat and upland refugia for endangered species, such as the California Ridgway's rail (*Rallus obsoletus obsoletus*) and salt marsh harvest mouse (*Reithrodontomys raviventris*). In some areas of the Project site, tidal salt marsh habitat cannot be restored until adequate flood protection for landward uses is in place. Where salt marsh habitat has been restored, there has been a reduction in available nesting and foraging habitat for federally listed as threatened western snowy plover (*Charadrius nivosus nivosus*). Managed pond habitat for the western snowy plover is also vulnerable to coastal flooding, as are segments of the San Francisco Bay Trail (Bay Trail) and other trails.

### 2.3.2 Project Purpose and Objectives

The overall purpose of the Project is to reduce risks to people, property, and infrastructure from current tidal flooding and projected sea level rise through engineered and natural features that enhance shoreline ecosystems and improve recreational opportunities. The specific objectives of the Project include the following:

- Reduce the risk of flooding within the cities of East Palo Alto and Menlo Park from San Francisco Bay waters, including up to 3.5 feet of future sea level rise, and support the communities' objective to be removed from the FEMA floodplain.

[2] Goals Project (San Francisco Bay Area Wetlands Ecosystem Goals Project), 2015. *The Baylands and Climate Change: What We Can Do. Baylands Ecosystem Habitat Goals Science Update 2015.* Prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project. California State Coastal Conservancy, Oakland, CA.

- Enable adaptation to our changing climate by implementing flood protection in ways that sustain and restore marsh habitat, support sensitive tidal marsh species, and enhance and protect habitat for western snowy plover, consistent with the South Bay Salt Ponds Restoration Project (SBSPRP) and other restoration efforts.
- Expand opportunities for recreation and community connectivity in collaboration with the Bay Trail Program and efforts to enhance local trails.
- Minimize future maintenance requirements.
- Partner with agencies and organizations pursuing similar goals and objectives and with assets to be protected by the Project.

# 3. Findings Regarding Independent Review and Judgement

Each member of the Board was provided with a copy of the Draft EIR for the SAFER Bay Project in November 2025 and a complete copy of the Final EIR for the Project in May 2026. The Board hereby finds that the EIR has been completed in accordance with CEQA; that the EIR reflects the Board's own independent judgment; and that the Board has independently reviewed and considered the EIR prior to taking any final action with respect to the Project.

# 4. Less-Than-Significant Environmental Effects; Mitigation Incorporated

SFCJPA finds that as discussed below, the following potentially significant impacts would be reduced to less-than-significant levels with the implementation of the corresponding mitigation measures for the Project.

## 4.1 Aesthetic Resources

1. **Impact AES-3: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.**

   **Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

   **Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts related to introducing significant new sources of light and glare.

   **Mitigation Measure AES-2: Nighttime Security Lighting.**
   This measure applies to all reaches. The Project Proponent shall require that Project contractors direct nighttime lighting used during construction away from adjacent residential areas or habitat, use the minimum amount of night lighting necessary for construction and safety, and shield and hood outdoor lighting to prevent light spillover effects during Project construction.

## 4.2 Air Quality

1. **Impact AIR-1: Conflict with or obstruct implementation of the applicable air quality plan.**

**Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

**Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts related to Construction-related fugitive dust.

**Mitigation Measure AIR-1: Best Management Practices for Construction-Related Fugitive Dust Emissions.**
This measure applies to all reaches. To reduce impacts from fugitive dust emissions during construction, the Project Proponent shall require construction contractors to implement the following Best Management Practices during activities involving soil disturbance, grading, and material hauling:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered up to two times per day during dry weather when winds are greater than 8 to 12 miles per hour.
- All haul trucks transporting soil, sand, or other loose material offsite shall be covered completely with no loose flaps.
- All visible mud or dirt trackout onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- Temporary unpaved construction roads onsite shall be stabilized with soil binders such as dust palliatives or chemical stabilizers to reduce airborne dust from vehicle travel over unpaved surfaces. All roadways, driveways, and sidewalks to be paved shall otherwise be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 miles per hour.
- All haul trucks, including their tires, shall be washed off prior to leaving the site.
- Construction entrances and unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted wood chips, mulch, or gravel.
- Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

2. **Impact AIR-2: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in nonattainment under an applicable federal or state ambient air quality standard.**

   **Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

   **Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts related to construction-related fugitive dust.

   **Mitigation Measure AIR-1** (Refer to Impact AIR-1)

## 4.3 Biological Resources

1. **Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.**

   **Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

   **Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts related to special-status species.

   **Mitigation Measure BIO-1: Worker Environmental Awareness Training.**
   This measure applies to all reaches and the following impacts: all subtopics under BIO-1 and C-BIO-The Project Proponent will ensure that all construction personnel are trained by a qualified biologist to identify the special-status animals and plants, their habitats, and other sensitive habitats that may occur in or near the Project area; and the environmental protection measures put in place to prevent impacts on these sensitive biological resources. The training shall include, at a minimum, the following:

   - A review of the special-status species and sensitive habitats that could be found in or adjacent to work areas.
   - Measures to avoid and minimize impacts on sensitive species and habitats, including measures to be taken by construction personnel if a sensitive species is detected during Project activities.
   - A review of all conditions and requirements of environmental permits, reports, and plans that pertain to sensitive species and habitats.

   **Mitigation Measure BIO-2: Preconstruction Survey.**
   This measure applies to all reaches and the following subtopics under Impact BIO-1: 1a and 1b. Prior to the initiation of any construction activities in each Project reach. The Project will retain a qualified biologist to conduct a focused survey during the appropriate bloom season for Congdon's tarplant (May through October, with blooming possible in April and November). The Project will obtain permits as needed for rare plant surveys and include the Midpeninsula

Regional Open Space District's Natural Resources Department in discussions and results of rare plant surveys on their lands. The survey will include all undeveloped area that are due to be affected by the Project, and that are within 50 feet of Project impacts. The survey shall take place no more than 3 years before ground disturbance and should be conducted in a year with near-average or above-average precipitation. If during the survey the biologist detects Centromadia sp. in a vegetative state, the biologist will return when the plant is flowering to determine whether it is Centromadia parryi ssp. Congdonii.

During the same survey, the qualified biologist will also conduct a focused survey for milkweeds (*Asclepias* spp.) during the appropriate bloom season (May through October) that may support monarch butterfly eggs or larvae.

**Mitigation Measure BIO-3: Congdon's Tarplant Avoidance and Minimization.**
This measure applies to all reaches. If Congdon's tarplant is found in the impact area or 50-foot survey buffer, then in consultation with a qualified plant ecologist, the Project Proponent shall ensure that the Project is designed to avoid direct and indirect impacts on the species to the extent feasible. For example, avoidance of impacts might be feasible if the species is found on San Francisco Public Utilities Commission (SFPUC) lands south of Pond SF2 Cell U3, where construction will be more limited. If the plant ecologist determines that direct and indirect impacts will be avoided, then Mitigation Measure BIO-3 would be unnecessary. During operation and maintenance activities, areas where Congdon's tarplant occurs will not be mowed or weed whacked until late fall when seed has set.

**Mitigation Measure BIO-4: Compensatory Mitigation for Congdon's Tarplant.**
This measure is applicable to all reaches where Congdon's tarplant is observed. If Congdon's tarplant is found in the impact area or 50-foot survey buffer and the Project cannot avoid impacts, compensatory mitigation shall be provided by the Project Proponent via the management of currently occupied habitat or the establishment of a new population for the species affected. The mitigation habitat shall be of equal or greater habitat quality compared to the affected areas, as determined by a qualified plant ecologist, in terms of soil features, extent of disturbance, vegetation structure, and dominant species composition, and shall contain at least as many individuals of the species as are affected by Project activities. Habitat occupied by the affected species will be preserved and managed in perpetuity at a minimum 1:1 mitigation ratio (at least one plant preserved for each plant affected, and at least 1 occupied acre preserved for each occupied acre affected). Alternatively, seed from the affected population may be harvested throughout the fruiting season to capture early, middle, and late fruiting plants and used either to expand an existing population (by a similar number/occupied area to compensate for impacts) or establish a new population in suitable habitat. The area to be revegetated with native plants to a tidal salt marsh-upland transition zone around the wetland in the southeastern part of the site could potentially serve as an onsite mitigation area.

The Project Proponent will retain a qualified plant biologist or restoration ecologist to develop a Congdon's Tarplant Habitat Mitigation and Management Plan (CTHMMP) to be implemented for the mitigation lands. Separate CTHMMPs may be prepared by each Project Proponent, as appropriate, based on location and/or construction responsibilities. The CTHMMP shall be

approved by the Project Proponent prior to the start of ground-disturbing activities and shall include, at a minimum, the following information:

- Summary of habitat impacts and the proposed mitigation;
- Description of the location and boundaries of the mitigation site and description of existing site conditions;
- Description of measures to be undertaken to enhance (e.g., through focused management that may include removal of invasive species in adjacent suitable but currently unoccupied habitat) the mitigation site for Congdon's tarplant;
- Description of measures to transplant individual plants or seeds from the impact area to the mitigation site, if appropriate (which will be determined by a qualified plant or restoration ecologist);
- Proposed management activities to maintain high-quality habitat conditions for Congdon's tarplant;
- Description of habitat and species monitoring measures on the mitigation site, including specific, objective final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc. At a minimum, performance criteria shall include demonstration that any Congdon's tarplant population fluctuations over the monitoring period do not indicate a downward trajectory in terms of reduction in numbers and/or occupied area for the preserved mitigation population that can be attributed to management (e.g., that are not the result of local weather patterns, as determined by monitoring of a nearby reference population, or other factors unrelated to management); and
- Annual monitoring should be conducted for a period of 5 years following seeding or the initiation of monitoring (e.g., for a mitigation site where the species is already present) to ensure that the population is healthy.
- Description of the management plan's adaptive component, including potential contingency measures for mitigation elements that do not meet performance criteria.

**Mitigation Measure BIO-5: Prevention of Spread or Mobilization of Pathogens and Invasive Plants.**

This measure applies to all reaches and the following subtopics under Impact BIO-1: 1b, 1d, 1e, 1f, 1g, 1h, 1j, and 1k. To prevent the spread/introduction of non-native invasive terrestrial and aquatic plant species and pathogens, such as sudden oak death syndrome (Phytophthora ramorum) and other soil-based Phytophthora species and invasive aquatic plant species such as wireweed (Sargassum muticum), the Project Proponent will implement the following procedures:

- Heavy equipment (e.g., excavators, drill rigs, track-mounted rigs), vehicles, and large tools must be cleaned (i.e., thoroughly washed) and free of soil and debris prior to entering the construction area from outside locations (i.e., arriving from other projects). Vehicles that only travel and park on paved roads do not require external cleaning.
- The interior of vehicles and heavy equipment will be free of dirt/debris and other potentially contaminated materials. Interiors should be vacuumed, washed, and/or treated with sanitizing agents to minimize the introduction of invasive plants and pathogens. The

exterior of large equipment, such as bucket loaders, tracks or wheels, undercarriage, and anything that accumulates soil and debris, will be thoroughly cleaned.

- Spray bottles containing either 70 to 90 percent ethyl/isopropyl alcohol or a solution containing a 1:20 bleach-to-water ratio and boot brushes or hoof picks will be present at all entry points for personnel to decontaminate their shoes, PPE, small tools, and other equipment prior to entering the construction area when arriving from outside locations (i.e., arriving from other projects or areas outside of the Project area). The spray will be liberally applied (i.e., until thoroughly soaked) to all small equipment and tools (e.g., shovels, screens, boots) and allowed to air dry prior to entry.
- To minimize the potential for introduction or spread of Phytophthora during revegetation work, container stock used at revegetation sites will be sourced from approved nurseries and will be installed in compliance with the latest guidance at www.Calphytos.org, which include the Guidelines to Minimize Phytophthora Pathogens in Restoration Nurseries, Guidance for Plant Pathogen Prevention when Working at Contaminated Restoration Sites or Sites with Rare Plants and Sensitive Habitat and Guidelines to Minimize Phytophthora Contamination in Restoration Projects.
- Pathogens in Restoration Nurseries, Guidance for Plant Pathogen Prevention when Working at Contaminated Restoration Sites or Sites with Rare Plants and Sensitive Habitat, and Guidelines to Minimize Phytophthora Contamination in Restoration Projects.
- To prevent the spread of invasive aquatic invasive plants and organisms, vessels and barges will be required to inspect and clean the hull and other underwater surfaces of vessels prior to arrival at the Project area. Work vessels will be contracted from within San Francisco Bay west of the Carquinez Strait to avoid the introduction of new aquatic invasive species to the Project's aquatic area.
- To prevent the spread of invasive aquatic invasive plants and organisms, vessels and barges will be required to inspect and clean the hull and other underwater surfaces of vessels prior to arrival at the Project area. Work vessels will be contracted from within San Francisco Bay west of the Carquinez Strait to avoid the introduction of new aquatic invasive species to the Project's aquatic area.

**Mitigation Measure BIO-6: Crotch's Bumble Bee and Monarch Butterfly Avoidance and Minimization.**

This measure applies to all reaches. The Project Proponent will implement the following best management practices to avoid and/or minimize impacts on the monarch butterfly, Crotch's bumble bee, and their habitats:

- The area of disturbance will be minimized to ensure that the footprint of soil disturbance is kept to the minimum area necessary to complete the maintenance work.
- A pre-activity survey for milkweed plants will be conducted during the same growing season that construction will begin to identify potential host plants for breeding monarchs. If feasible, impacts on milkweed plants will be avoided. If avoidance of milkweed plants is infeasible, a qualified biologist will survey those plants for monarch butterfly eggs, larvae, or pupae within 7 days prior to impacts on those plants. If those life stages are present, they should be avoided if feasible until an adult has emerged. If avoidance is infeasible, the U.S. Fish and Wildlife Service (USFWS) will be consulted to

determine appropriate measures. For example, the monarchs can be raised to adulthood in captivity and then released.

- A qualified biologist will conduct a pre-activity survey for foraging or nesting Crotch's bumble bees. The survey will be conducted within 7 days prior to the start of early tree removal and will occur at least 2 hours after sunrise and at least 2 hours before sunset during suitable conditions, with temperatures between 60 and 90°F and no rain. The survey will cover the entire Project site and a surrounding 100-foot buffer area. The survey duration will be based on the metric of a minimum of 1 person-hour of searching per 3 acres of suitable habitat. This survey will be a visual encounter survey, with identification aided by photographs. No bees will be captured or handled. During the survey, the qualified biologist will do the following:
    - Search areas with flowering plants for foraging Crotch's bumble bees.
    - Survey burrows and other possible nesting habitat.
    - Look and listen for concentrated bumble bee activity.
    - If bumble bees are observed, obtain photos of the bees for documentation and to determine if the bees are or are not Crotch's bumble bees. Photographs will be taken with an appropriate camera (e.g., a digital camera with a macro or telephoto lens or other cameras equipped with a view finder, continuous shooting mode, and macro or telephoto lens) from multiple angles to capture key features to aid identification, if possible, and will be in focus.
- If Crotch's bumble bees and/or Crotch's bumble bee nests are detected, surveyors will record the location of the nest; nest substrate, slope, aspect, and distance to nearest forage if known; number of individuals observed; and vegetation used by individuals.
- If Crotch's bumble bees are observed during the preconstruction survey, a qualified biologist will monitor all construction activities that, in the opinion of the biologist, could potentially result in take of individuals.
- If a Crotch’s bumble bee nest is detected, the nest will be avoided by a buffer (preferably of at least 50 feet) until late fall, when it is no longer active, unless the Project is covered by an Incidental Take Permit or Restoration Management Permit from CDFW allowing the nest to be affected.
- Measures to minimize impacts on natural habitat areas due to staging and stockpiling of materials will be implemented, including locating staging areas in previously disturbed areas and incorporating erosion control measures during the wet season.
- Dust management measures will be implemented to reduce dust within and adjacent to work areas, including watering exposed surfaces, covering haul trucks, sweeping streets, and limiting vehicle speeds.
- Exposed soils will be revegetated with native seed to stabilize soils and prevent erosion. Operation and maintenance activities in areas where milkweed and/or Crotch’s bumble bee nests may occur will be implemented November-January when milkweed have not yet emerged and Crotch’s bumble bee nests are not active, outside the Crotch’s bumble bee flight season.

**Mitigation Measure BIO-7: Minimize Underwater Noise Impacts.**

This measure applies to all reaches. During construction, the following noise minimization and avoidance measures shall be implemented by the Project Proponent:

- Levee construction occurring in marsh and aquatic habitats will occur in dewatered work areas unless otherwise approved by regulatory agencies.
- To the extent feasible, if sheet piles are necessary for dewatering, all sheet piles shall be installed and removed with a vibratory pile driver hammer.
- Vibratory pile driving shall be conducted following the United States Army Corps of Engineers 2018 "U.S. Army Corps of Engineers Proposed Additional Procedures and Criteria for Permitting Projects under a Programmatic Determination of Not Likely to Adversely Affect Select Listed Species in California (the 2018 NLAA Program)", or as otherwise approved by regulatory agencies.
- An impact pile driver may only be used where necessary to complete installation of larger steel pilings in accordance with seismic safety or other engineering criteria.
- If an impact pile driver is used, it will be cushioned using a 12-inch-thick wood cushion block.
- A Hydroacoustic Monitoring Plan shall be prepared and approved by NMFS to be implemented in the event that an impact hammer is used. The sound monitoring results will be made available to CDFW, NMFS, and USFWS.
- The plan will provide detail on the sound attenuation system, the methods used to monitor and verify sound levels during impact pile-driving activities.
- The plan will include the use of a bubble curtain during any impact pile driving of piles in the water. The bubble curtain will be operated in a manner consistent with the following performance standards:
    - The bubble curtain will distribute air bubbles around 100 percent of the piling perimeter for the full depth of the water column.
    - The lowest bubble ring will be in contact with the mudline for the full circumference of the ring, and the weight attached to the bottom ring shall ensure 100 percent mudline contact. No parts of the ring or other objects shall prevent full mudline contact.
    - Air flow to the bubblers must be balanced around the circumference of the pile.
    - A "soft start" technique shall be employed in all pile driving to give fish and other aquatic species an opportunity to vacate the area. When initiating pile driving, or when there has been downtime of 30 minutes or more without pile driving, the contractor will initiate the driving with ramp-up procedures described below.
        - For vibratory hammers, the contractor will initiate the driving for 15 seconds at reduced energy, followed by a 30-second waiting period. This procedure will be repeated two additional times before continuous driving is started.
        - For impact driving, an initial set of three strikes would be made by the hammer at 40 percent energy, followed by a 30-second waiting period, then two subsequent three-strike sets at 40 percent energy, with 30-second waiting periods, before initiating continuous driving.
- A biological monitor will be present during all pile driving to observe the work area before, during, and after pile driving. The monitor will be present as specified by NMFS during the impact pile-driving phases of construction.

**Mitigation Measure BIO-8: Seasonal Restrictions.**

This measure applies to all reaches. The Project Proponent will require that in-water work in tidal open water, intertidal mudflat, muted tidal open water, and managed pond (Ponds R1, R2, R3, R5/S5, and SF2) habitats, where fish may be present, will be conducted between June 1 through November 30, based on the standard work windows for green sturgeon and steelhead. If completion of in-water work within this period is not feasible due to scheduling issues, the Project Proponent will prepare and submit new timing guidelines to NMFS and CDFW for approval prior to initiation of in-water work.

**Mitigation Measure BIO-9: Fish Exclusion at Dewatering Sites.**
This measure applies to all reaches. Prior to levee construction, the Project Proponent will install cofferdams as necessary to dewater the work areas, unless otherwise approved by regulatory agencies. Cofferdams will be constructed in a manner that effectively dewaters the work area. Within areas determined by a qualified biologist to potentially support special-status fish or EFH, sheet piles or other suitable materials will be placed in such a way as to reduce the likelihood of fish being stranded. The final wall will be placed at low tide to minimize the amount and depth of water present within the cofferdam. Just before the final wall is installed, if water is present within the coffer dam, qualified biologists will use nets (with a maximum mesh size of 9.5 millimeters) to exclude fish from the construction area. At low tide, qualified biologists will walk from the upper edge of the work area to the lower edge of the work area with a seine stretched across any wetted portion of the work area to encourage fish to move out of the construction area (without catching the fish) through the gap where the final wall would be installed. When the lower end of the construction area is reached, a block net would be installed in that gap to prevent fish from moving back into the cofferdam. This procedure would be repeated as necessary to minimize the potential for fish to remain in the dewatered area. The final sheet pile or other suitable dewatering material would then be installed. If any water that may still contain fish remains within the cofferdams following these procedures, a qualified biologist would use a dipnet or seine to capture the fish. The fish would be placed in buckets and immediately transported to suitable habitat outside the work area. Upon completion of in-water work activities, cofferdams shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Cofferdams will be installed using vibratory hammers to minimize underwater vibratory impacts.

**Mitigation Measure BIO-10: Minimize Dredging Impacts.**
This measure applies to the Substation and Marsh Restoration Reach. If dredging a “bayward channel” at the mouth of Ravenswood Slough between the proposed primary breach at Pond R1 and the San Francisco Bay occurs, the Project Proponent will implement the following minimization and avoidance measures:

- All dredging will be conducted between September 1 and November 30.
- Impermeable silt curtains and/or gunderbooms, a tool similar to a silt curtain that is made of permeable material that allows water to flow through but traps sediment within the curtain, will be used to contain sediments within a limited area until it resettles.
- Operational controls will be implemented for dredges to limit the amount of sediment released while dredging.

- Use of clamshell dredges with a bucket ≤ 10 cubic yards will reduce the occurrence of fish and mobile invertebrate entrainment.

**Mitigation Measure BIO-11: Minimize Operation and Maintenance Impacts.**
This measure applies to the Dumbarton Approach, Tech Campus, Bayfront Expressway, and Bedwell Bayfront Park reaches. Where water control structures are present, the Project Proponent will implement the following minimization and avoidance measures:

- A fish screen will be installed on pumps to prevent fish from being pumped into managed ponds during operations intended to support targeted water level management.
- If managed ponds with passive water control structures are dewatered for maintenance activities, a qualified biologist will survey the area during and after dewatering to ensure that fish species are not stranded. Any fish species observed to be stranded will be collected and brought to the nearest body of water.

**Mitigation Measure BIO-12: Western Snowy Plover Weekly Surveys and Nest Avoidance Buffers.**
This measure applies to the Dumbarton Approach, Substation and Marsh Restoration, Bayfront Expressway, and Marsh Road reaches. During western snowy plover breeding season (March 1–-September 15), for construction activities that occur within 600 feet of potential western snowy plover breeding habitat, the Project Proponent will retain a qualified biologist to conduct a thorough survey of all suitable habitat in the construction area and adjacent suitable western snowy plover habitat within 600 feet of all potential work areas on a weekly basis. The survey will identify the location of western snowy plover adults, nests, and broods within the construction area and adjacent areas. The qualified biologist will then coordinate with Project construction personnel regarding appropriate avoidance of construction activities in areas where they could disturb nests and broods. A buffer of at least 600 feet, free from any construction activities that were not ongoing when the nests were initiated, will be established around the nests until they are no longer active. This buffer may be reduced if a qualified biologist, in consultation with the USFWS, determines that a reduced buffer would still adequately avoid disturbance of plover nests.

**Mitigation Measure BIO-13: Western Snowy Plover Daily Preactivity Surveys and Monitoring.**
This measure applies to the Dumbarton Approach, Substation and Marsh Restoration, Bayfront Expressway, and Marsh Road reaches. During western snowy plover breeding season (March 1–September 15), for construction and/or operation and maintenance activities that occur within 600 feet of potential western snowy plover breeding habitat, the Project Proponent will retain a qualified biologist to conduct daily preactivity clearance surveys where construction or maintenance activities, including walking, are planned prior to the start of these activities. The preactivity clearance surveys will ensure that nests have not been established in the construction/operation and maintenance area or adjacent areas, and western snowy plover adults and broods have not moved into these areas, where they may be disturbed by construction/operation and maintenance activities. If an active nest is observed, work in the area will stop and a 600 feet buffer will be implemented to protect the nest while it remains active. This buffer may be reduced if a qualified biologist, in consultation with the USFWS, determines

that a reduced buffer would still adequately avoid disturbance of plover nests. If adults or broods are present in work areas, work will stop, and they will be allowed to leave on their own prior to work occurring. A qualified biologist will be present to monitor construction and/or operation and maintenance activities and determine when work may occur in these areas. If work activities change during the day to a different location, a qualified biologist will re-survey that area to ensure broods have not moved into the area. Prior to adjusting water levels in managed ponds that may support breeding western snowy plovers, a qualified biologist will conduct a complete survey of the pond where water management will occur. If active nests and/or broods are observed in the pond, water intake will be limited to refilling borrow ditches and foraging channels to prevent inundating nesting areas, and discharge will be limited to ensure that the borrow ditch remains inundated to reduce mammalian and pedestrian access.

**Mitigation Measure BIO-14: General Wildlife Impact Minimization Measures.**
The Project Proponent will ensure that the following measures are applied to all Project activities:

- No nighttime construction will occur unless otherwise approved by agencies.
- No permanent night lighting will be installed for operations, and lighting will be avoided during construction and maintenance to the extent feasible. If lighting must be used during construction or maintenance activities (e.g., security lighting in staging areas), it shall be shielded and angled downward and away from sensitive marsh and aquatic habitats (including managed ponds) to avoid direct illumination of such habitats and to avoid having the luminaires visible from marsh and aquatic habitats. The lighting shall be as close to the ground as possible (i.e., light poles will be short), and the illumination magnitude shall be as low as possible while still achieving the purpose of the lighting.
- Signage prohibiting access to sensitive habitats and areas that are closed to the public and indicating the importance of protection of sensitive biological resources, will be placed in key locations, such as along trails near sensitive habitats. All signs will be conspicuous but low in stature so they do not provide high-quality perches for avian predators.
- Public benches installed will be backless to reduce opportunities for predatory bird perching unless a qualified biologist determines that due to the presence of other perches in the area, the presence of a bench with a back would not provide predatory birds with increased hunting opportunities, and agencies approve this variance.
- No dogs will be allowed on trails (or elsewhere) on Refuge lands. Elsewhere, all dogs must be on leashes and must remain on established trails, and signage indicating these requirements will be placed in key locations.
- Any permanent fencing near habitat for sensitive species will incorporate raptor perch deterrents and, as necessary, mammal climbing deterrents (such as coyote rollers).
- Construction, maintenance, and management activities (including mowing) within or adjacent to tidal marsh habitat will not occur within 2 hours before or after extreme high tides (6.5 feet or above, as measured at the Golden Gate Bridge and adjusted to the timing of local high tides), when the marsh plain is inundated, because protective cover for tidal marsh species is limited and activities could prevent them from reaching available cover.
- Viewing platforms, kiosks, benches, interpretive displays, and other focal areas for public use will be located a minimum of 300 feet from high-quality western snowy plover nesting habitat.

**Mitigation Measure BIO-15: Preconstruction Surveys for Special-Status Marsh Birds.** This measure applies within the South of Bay Road, North of Bay Road, Substation and Marsh Restoration, Tech Campus, Bayfront Expressway, and Bedwell Bayfront Park reaches. If construction activities occur between February 1 and August 31, the Project Proponent will retain a qualified biologist to conduct a preconstruction survey for special-status marsh birds prior to the initiation of vegetation clearing, demolition, earth moving, or other activities that could affect adults, eggs, or chicks of these species. Surveys for the California Ridgway's rail and California black rail will be conducted in accordance with the latest USFWS/CDFW protocols for determining presence/absence of these species. The most recent protocol for the California Ridgway's rail requires conducting passive surveys (without broadcast vocalizations) followed by active surveys using broadcast vocalizations if the species is not detected during passage surveys; the first survey must occur between January 15 and January 31, so advance planning is necessary to conduct protocol-level surveys for the California Ridgway's rail during a construction year.

Surveys for the other marsh birds will be conducted within 7 days prior to the initiation of Project activities. If there is a lull in construction activities of at least 7 days during this time period, a qualified biologist will conduct another preconstruction survey for non-rail marsh birds prior to the resumption of construction activities. If an active nest is located, the qualified biologist will maintain an appropriate buffer to protect the nest until it is no longer active, as described in Mitigation Measure BIO-16.

It should be noted that California Ridgway's rails are sufficiently abundant and widespread in Faber and Laumeister marshes that presence of this species may be assumed in lieu of needing to conduct surveys, in which case no construction would occur within 700 feet of this species' breeding habitat during the breeding season.

**Mitigation Measure BIO-16: Breeding Season Habitat Buffers.** This measure applies within the South of Bay Road, North of Bay Road, Substation and Marsh Restoration, Tech Campus, Bayfront Expressway, and Bedwell Bayfront Park reaches. To avoid causing the abandonment of an active California Ridgway's rail or California black rail nest, the Project Proponent will ensure that Project/operation and maintenance activities aside from recreational uses and maintenance activities using light duty vehicles within 700 feet of salt marsh habitats suitable for these species within or adjacent to the Program or Project area will be avoided during the rail breeding season (from February 1 through August 31) unless:

1) A qualified biologist in coordination with USFWS and CDFW determines that a reduced buffer (but no less than 200 feet) is appropriate due to intervening development or obstructions, the level of disturbance by the activity (in terms of noise and equipment), or other factors that will reduce the potential for the activity to disturb nesting rails, or

2) Protocol-level surveys conducted by a qualified biologist pursuant to Mitigation Measure BIO-15 verifies the absence of these species from nearby areas. If breeding rails are determined to be present, construction activities will not occur within 700 feet of an identified California Ridgway's rail calling center, or within 300 feet of a California black rail calling center, during the breeding season unless the USFWS and CDFW provide guidance regarding

the types of activities that may occur within lesser distances from calling centers, in which case USFWS and CDFW guidance shall be followed.

Buffers around nests of the other marsh birds will be determined by a qualified biologist; such buffers will typically be at least 100 feet for non-raptors and 300 feet for raptors such as the northern harrier, although the qualified biologist may determine that reduced buffers are appropriate. Buffers around individual nests will be maintained until nests are no longer active (i.e., until young have fledged or the nesting attempt has failed).

**Mitigation Measure BIO-17: Preconstruction Surveys for Colonial Nesting Birds.**
This measure applies within the Dumbarton Approach, Substation and Marsh Restoration, Tech Campus, Bayfront Expressway, Bedwell Bayfront Park, and Marsh Road reaches. During the breeding season for colonial nesting birds (March 1 through August 31), the Project Proponent will retain a qualified biologist to conduct a survey for colonial nesting birds in all suitable habitats within 300 feet of construction or operation and maintenance activities within 5 days before activities begin. If a colony is observed to be active, Mitigation Measure BIO-18 will be implemented.

**Mitigation Measure BIO-18: Breeding Season Colony Buffers for Colonial Nesting Birds.**
This measure applies within the Dumbarton Approach, Substation and Marsh Restoration, Tech Campus, Bayfront Expressway, Bedwell Bayfront Park, and Marsh Road reaches. The Project Proponent will ensure that no construction or operation and maintenance activities occur within 100 feet of an active American avocet or black-necked stilt nest; within 100 feet of an active cliff swallow colony; or within 300 feet of an active tern or skimmer colony during the breeding season (March 1 through August 31) unless a qualified biologist determines that reduced buffers are appropriate. These buffers will be maintained until nests are no longer active (i.e., until young have fledged or all nests have failed). Appropriate buffers will be maintained around precocial young to avoid injury or mortality of chicks, or disturbance of adults that increases predation risk for the young. The size of the buffer will be determined on a case-by-case basis by a qualified biologist based on the nature of the work, the behavior of the birds (e.g., attempting to approach the work area vs. maintaining distance on their own), proximity to potential predators, intervening barriers such as waterbodies, and other factors deemed relevant to each case by the biologist. A qualified biologist will identify any necessary measures, which may include buffers, to prevent construction from impacting broods of precocial young.

**Mitigation Measure BIO-19: Preconstruction Surveys for Other Nesting Birds.**
This measure applies to all reaches. During the breeding season, February through August 31, the Project Proponent will retain a qualified biologist to conduct a survey for raptors, such as white-tailed kites and red-tailed hawks, in all suitable habitats within 300 feet, and for all other nesting birds within 100 feet of construction and operation and maintenance activities within 7 days before activities begin. If there is a lull in construction activities for at least 7 days during this time period, a qualified biologist will conduct another preconstruction survey for nesting birds prior to the resumption of construction activities.

**Mitigation Measure BIO-20: Breeding Season Nest Buffers for Other Nesting Birds.**

This measure applies to all reaches. If an active nest (i.e., a nest with eggs or young, or any completed raptor nest attended by adults) of a protected bird species is found sufficiently close to work areas to be disturbed by these activities, the Project Proponent will retain a qualified biologist to determine the extent of a buffer zone to be established around the nest to ensure that the nesting birds will not be disturbed during the Project. No Project activities that were not ongoing when the nest was established may occur within the buffer zone. Typical buffers are 300 feet for nests of raptors and 100 feet for nests of other birds, although the qualified biologist may determine that reduced buffers are appropriate. Buffers around individual nests will be maintained until nests are no longer active (i.e., until young have fledged or the nesting attempt has failed).

**Mitigation Measure BIO-21: Preconstruction Surveys for Burrowing Owl.**
This measure applies to ruderal upland, ruderal levee slope, and culvert/riprap habitats throughout all reaches, as well as managed ponds in the Dumbarton Approach, Substation and Marsh Restoration, Bayfront Expressway, and Marsh Road reaches. Prior to Project activities, the Project Proponent will implement the following measures to ensure that individual burrowing owls are not injured or killed:

Prior to initiation of construction activities (including demolition, vegetation clearing, or ground disturbance) associated with the Project in any given part of the Project area, a qualified biologist shall conduct preconstruction surveys in all potentially suitable burrowing owl habitat on and within 250 feet of the area in which ground disturbance is proposed. To maximize the likelihood of detecting owls, the preconstruction survey shall last a minimum of 3 hours. The survey shall begin 1 hour before sunrise and continue until 2 hours after sunrise (3 hours total) or begin 2 hours before sunset and continue until 1 hour after sunset. A minimum of two surveys shall be conducted (if owls are detected on the first survey, a second survey is not needed). Owls observed shall be counted and their location shall be mapped. Surveys shall conclude no more than 2 calendar days prior to construction; thus, surveys must begin no less than 4 days prior to the start of construction, operations, or reclamation activities (2 days of surveying plus up to 2 days between surveys and construction).

To avoid last-minute changes in schedule that may occur if burrowing owls are found, a preliminary survey may be conducted up to 14 days before construction. This preliminary survey may count as the first of the two required surveys, as long as the second survey concludes no more than 2 calendar days in advance of construction. If the preconstruction survey does not identify the presence of burrowing owls on or within 250 feet of the site, no further measures are necessary. However, should the preconstruction survey determine the presence of burrowing owls on or within 250 feet the site, then the Project Proponent shall implement the following avoidance measures.

**Mitigation Measure BIO-22: Burrowing Owl Buffers and Monitoring.**
This measure applies to ruderal upland, ruderal levee slope, and culvert/riprap habitats throughout all reaches, as well as managed ponds in the Dumbarton Approach, Substation and Marsh Restoration, Bayfront Expressway, and Marsh Road reaches.

1. *Avoidance during the breeding season.* If evidence of burrowing owls is found during the breeding season (February 1 to August 31), the Project Proponent shall ensure that all nesting or roosting sites that could be disturbed by Project demolition or construction shall be avoided during the remainder of the breeding season (if owls remain throughout the breeding season) or while the nest (i.e., a burrow occupied during the period from February 1 to August 31) is occupied by adults or young (occupation includes individuals or family groups foraging on or near the site following fledging). Although burrowing owls are unlikely to nest on the Project site, there is a remote possibility that nesting may occur. Wintering owls in San Mateo County often remain past February 1, at which time they cannot be distinguished from breeding birds. As a result, any owl present between February 1 and August 31 will be considered a potential breeder unless and until it leaves the site.

   Avoidance shall include establishment of a 250-foot non-disturbance buffer zone around nests. Demolition and construction may occur outside of the 250-foot non-disturbance buffer zone. Demolition and construction may occur inside of the 250-foot non-disturbance buffer during the breeding season only if the nest is not disturbed, and a qualified biologist develops an avoidance, minimization, and monitoring plan prior to Project construction that includes all of the following criteria:

   - A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction).
   - The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.
   - If there is any change in owl nesting and foraging behavior as a result of construction activities, all disturbance activities shall cease within the 250-foot buffer. Construction shall not resume within the 250-foot buffer until the adults and juveniles from the occupied burrows have moved out of the Project area and 250-foot buffer.
   - If monitoring indicates that the nest is abandoned prior to the end of the nesting season (as would occur if a wintering owl lingered past February 1 and then eventually migrated to its breeding areas outside the region), and the burrow is no longer in use by owls, the non-disturbance buffer zone may be removed. The qualified biologist will excavate the burrow to ensure that no owls are present and to prevent reoccupation after receiving approval from CDFW.

2. *Avoidance during the non-breeding season.* During the non-breeding season (September 1 through January 31), the Project Proponent shall ensure that a 250-foot non-disturbance buffer shall be established around occupied burrows as determined by a qualified biologist. Construction activities outside of this 250-foot buffer are allowed. Construction activities within the 250-foot buffer are allowed if all of the following criteria are met to prevent owls from abandoning important overwintering sites:

   - A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).
   - The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.

- If there is any change in owl nesting and foraging behavior as a result of construction activities, all disturbance activities shall cease within the 250-foot buffer.
- If the owls are gone for at least 1 week, the Project Proponent may request approval from the CDFW that a qualified biologist excavate or block usable burrows to prevent owls from re-occupying the site. After all usable burrows are excavated, the buffer zone will be removed and construction may continue. Monitoring must continue as described above for the non-breeding season as long as the burrow remains active.

3. *Construction monitoring.* Based on the avoidance, minimization, and monitoring plan developed during construction, all non-disturbance buffer zones shall be established and maintained. A qualified biologist shall monitor the site consistent with the requirements described above to ensure that buffers are enforced and owls are not disturbed. The biological monitor shall also conduct training of construction personnel on the avoidance procedures, buffer zones, and protocols in the event that a burrowing owl flies into an active construction zone or within 250 feet of such zone.

**Mitigation Measure BIO-23: Passive Relocation Burrowing Owl.**
This measure applies to ruderal upland, ruderal levee slope, and culvert/riprap habitats throughout all reaches, as well as managed ponds in the Dumbarton Approach, Substation and Marsh Restoration, Bayfront Expressway, and Marsh Road reaches. Passive relocation shall only be allowed, with the approval of CDFW, during the non-breeding season (September 1 through January 31), and may only occur if the burrow needs to be removed or could collapse from construction activities. If passive relocation is allowed by CDFW, the Project Proponent shall have a qualified biologist passively exclude birds from their burrows during non-breeding season only by installing one-way doors in burrow entrances. These doors shall be in place for at least 48 hours to ensure owls have left the burrow, and then the qualified biologist shall excavate the burrow to prevent reoccupation. Burrows shall be excavated using hand tools. During excavation an escape route shall be maintained at all times. This may include inserting an artificial structure into the burrow to avoid having the overburden collapse into the burrow and trap owls inside.

**Mitigation Measure BIO-24: Vegetation Removal.**
This measure applies to the South of Bay Road, North of Bay Road, Dumbarton Approach, Substation and Marsh Restoration, and Bedwell Bayfront Park reaches. Where vegetation removal occurs, the Project Proponent will ensure that vegetation and debris that could provide cover for salt marsh harvest mice will be removed under the supervision of a qualified biologist using only hand tools (which may include line trimmers) at least 1 week prior to the commencement of construction activities. Vegetation removal will be limited to the minimum amount necessary to permit the activity to occur. Vegetation will be removed on a progressive basis, such that the advancing front of vegetation removal moves toward vegetation that would not be disturbed. A qualified biologist will monitor the vegetation removal and make specific recommendations with respect to the rate of vegetation removal (to ensure that any small mammals present are able to escape to cover that would not be affected), and whether vegetation needs to remain in a certain area temporarily to facilitate dispersal of individuals into habitat outside the impact area.

During mowing of vegetation along the levee, mowing will start from the top (the area of least suitable habitat) and proceed downslope toward more suitable habitat so any mice present in the narrow swath to be mown can move away from the disturbance of the mower and out of the mowing area. Below the zone at the top of the levee that will be mown, any woody plant removal that becomes necessary will be performed by hand; such hand-removal is expected to be necessary very infrequently (e.g., once every few years, at most).

**Mitigation Measure BIO-25: Wildlife Exclusion Fencing.**
This measure applies to all reaches. Once vegetation has been removed, where work occurs adjacent to suitable habitat, the Project Proponent will ensure that wildlife exclusion fencing is installed in a configuration that minimizes potential for small mammals to move from unaffected habitat into the work area. A qualified biologist will be present during initial vegetation removal and exclusion fence installation, then periodically inspect the site during construction activities to ensure that the exclusion fencing is functioning appropriately. This fencing will consist of material that cannot be climbed by harvest mice, buried at least 4 inches below the ground's surface, and with at least 1 foot (but no more than 4 feet) above the ground. All supports for the fencing will be placed on the inside of the work area. A buffer will be maintained free of vegetation around the outside of the exclusion fencing; this buffer will be the minimum width necessary to prevent vegetation from leaning against the fencing in a way that would allow small mammals to climb the fencing. Fencing will not be placed in areas where it would prevent small mammals from reaching refugial habitat during very high tides.

2. **Impact BIO-2: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.**

**Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

**Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts related to wetlands or other sensitive natural community.

**Mitigation Measure BIO-26: Habitat Restoration Monitoring Plan.**

This measure applies to proposed habitat restoration activities in Ponds R1, R2, R3, and SF2 as well as all temporarily affected areas in all reaches, including replacement secondary channels and levee slope revegetation areas. The Project Proponent will prepare and implement a habitat restoration monitoring plan (HRMP). The HRMP will include specific plans for the revegetation, restoration, and enhancement of habitat in Ponds R1, R2, R3, and SF2 as well as in areas within the Project site that are subject to temporary construction-phase impacts. The detailed restoration and enhancement approaches presented in the HRMP will be consistent with the approved habitat restoration design and will include the following key elements:

- A planting plan that specifies the use of locally obtained plant materials and include detailed descriptions of installation methods, after-installation care, and weed control measures;

- A soil handling plan that identifies screening criteria pursuant to the Habitat Restoration BOD to confirm suitability of potential fill material for restoration purposes and processes to implement soil screening;
- A site maintenance plan, including elements such as invasive plant control, trash removal, plant mortality thresholds to trigger replanting (where appropriate such as for T-zone habitat), and an irrigation plan for T-zone habitat; and
- An ecological monitoring plan that includes 10 years of post-restoration ecological monitoring for permanent impact areas, habitat restoration areas, and habitat enhancement areas and 5 years of post-restoration ecological monitoring for areas temporarily disturbed during construction. The ecological monitoring plan success criteria will be based on the goals and design criteria set forth in the BOD report, as otherwise modified through permits and approvals from agencies with jurisdiction over the affected resources, and include at a minimum:
    - Vegetation success criteria based on quantifiable metrics including percent cover of native vegetation, percent cover of native wetland vegetation, and maximum percent cover of invasive species (<10 percent).
        - For example, construction-phase temporary impact areas in tidal salt marsh will have at least 70 percent cover of native tidal wetland salt marsh vegetation in Year 5.
    - Success criteria and associated metrics that reflect adequate conditions for use by target wildlife species.
    - Success criteria and associated metrics that document stability of graded areas, including replacement secondary channels, and allow for corrective measures if there is evidence of erosion, slumping, undercutting, or other signs of issues that may pose a risk to target habitat establishment.
    - Final success criteria will be written to target Year 5 for temporary impact areas and Year 10 for permanent impact areas and habitat restoration areas, but the monitoring period may be extended if criteria are not met. In addition, if final performance criteria are not met, or if during monitoring it becomes clear that the restoration areas are not on a trajectory to meet final performance criteria, the plan will require preparation of remedial measures and may call for preparation of adapted final success criteria, which will be reviewed and approved by the regulatory agencies.
    - Repeat measurements of tidal hydrology, topography, and sedimentation throughout the monitoring period that document that tidal wetlands, managed ponds, created high-tide refugia, and seabird nesting islands are achieving target physical conditions for habitat establishment.
- The HRMP will also include an adaptive management plan. The adaptive management plan will identify the management actions needed for attainment of the success criteria in the ecological monitoring plan). The performance period for the adaptive management plan will be the 10-year post-restoration monitoring period. Following this monitoring period, the habitat restoration sites within the Ravenswood Pond Complex will be adaptively managed in accordance with the South Bay Salt Pond Restoration Project's adaptive management plan.
- Prior to Project construction, the Project Proponent will submit the HRMP to the San Francisco Bay Restoration Regulatory Integration Team (BRRIT) (including NMFS, USFWS, United States Army Corps of Engineers [USACE], CDFW, Regional Water

Quality Control Board [RWQCB], and the San Francisco Bay Conservation and Development Commission [BCDC]) for approval pursuant to regulatory agency authorities.

3. **Impact BIO-3: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.**

   **Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

   **Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts related to riparian habitat or other sensitive natural community.

   **Mitigation Measure BIO-26** (refer to Impact BIO-2)

4. **Impact BIO-5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.**

   **Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

   **Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts related to local policies or ordinances protecting biological resources.

   **Mitigation Measure BIO-27: Protected Trees.**

   This measure applies to the following reaches: South of Bay Road, North of Bay Road, Dumbarton Approach, Substation and Marsh Restoration, Tech Campus, Bayfront Expressway, and Bedwell Bayfront Park. South of Bay Road and North of Bay Road are subject to the City of East Palo Alto Tree Ordinance, while the remainder are subject to the City of Menlo Park Municipal Code Section 13.24.040. The Project Proponent will retain a qualified arborist to conduct a tree survey of the construction footprint. Any trees to be removed will be evaluated for whether they are protected under the applicable local policies (City of East Palo Alto Ordinance 02-2022, City of Menlo Park Municipal Code Section 13.24.040, City of Redwood City Municipal Code Section 35.2). If so, the Project Proponent will avoid affecting these trees, if possible to do so without unreasonable added Project cost, or otherwise obtain a tree removal permit from the applicable local municipality. The Project will comply with all permit conditions, including replacement planting of removed trees if required. No replacement trees will be planted or allowed to grow within shoreline protection features or areas designated for restoration. Removed protected trees will be replaced at the ratio(s) stipulated in the terms of the tree removal permit(s) from the applicable local municipality, through one of the following means:

   - Replanting of ecologically appropriate native tree species in locations suitable for tree establishment and long-term survival; and/or
   - Protecting naturally recruited seedlings through the sampling stage.

   The Project Proponent will monitor the replacement trees for a 5-year period. The replacement trees will achieve at least 80 percent survival after 5 years of monitoring or will be replanted until at least 80 percent of the original replacement quantity is surviving at 5 years after initial planting or as stipulated in the tree removal permit(s).

5. **C-BIO-1: The Project, in combination with cumulative projects, would result in significant cumulative impacts on biological resources.**

   **Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

   **Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address cumulative impacts on biological resources.

   **Mitigation Measures BIO-1 through BIO-27.** (refer to Impacts BIO-1, BIO-2, BIO-3, and BIO-5)

## 4.4 Cultural Resources

1. **Impact CUL-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5.**

   **Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

   **Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts on archaeological resources.

   **Mitigation Measure CUL-1: Project-Level Cultural Resources Assessment.**
   When additional design details (including temporary and permanent areas of ground disturbance and depth of excavation) are available for shoreline protection features, habitat improvements, recreational features, and associated utilities improvements/relocations evaluated at a program-level of detail, the Project Proponent will retain a qualified archaeologist, defined as an archaeologist meeting the U.S. Secretary of the Interior's Professional Qualification Standards for Archaeology, to conduct a cultural resources investigation that includes, at a minimum:

   - An updated records search at the Northwest Information Center;
   - An intensive cultural resources survey of the proposed Area of Potential Effects;
   - A report disseminating the results of this research; and,
   - Recommendations for additional cultural resources work necessary to mitigate any adverse impacts on recorded and/or undiscovered cultural resources.

   **Mitigation Measure CUL-2: Monitoring Plan.**
   This measure applies to all reaches. Prior to authorization to proceed, the Project Proponent will retain a qualified archaeologist, defined as an archaeologist meeting the U.S. Secretary of the Interior's Professional Qualification Standards for Archeology. The archaeologist will prepare a cultural resources monitoring plan. The plan will be reviewed by consulting culturally affiliated Native American tribe(s) and the Project Proponent. The plan will include (but not be limited to) the following components:

- Training program for all construction and field workers involved in site disturbance; onsite personnel shall attend a mandatory pre-Project training led by a Secretary of the Interior qualified archaeologist and consulting Native American representative(s). The training will outline the general cultural sensitivity of the area and the procedures to follow in the event cultural materials and/or human remains are inadvertently discovered.
- Specifically, where monitoring will be completed and under what circumstances based on soil types, geology, distance to known sites, and other factors;
- Person(s) responsible for conducting monitoring activities, including a request to consulting culturally affiliated Native American tribe(s) for a tribal monitor;
- Person(s) responsible for overseeing and directing the monitors;
- How the monitoring shall be conducted and the required format and content of monitoring reports;
- Schedule for submittal of monitoring reports and person(s) responsible for review and approval of monitoring reports;
- Protocol for notifications in case of encountering cultural resources, as well as methods of dealing with the encountered resources (e.g., collection, identification, curation);
- Methods to ensure security of cultural resources sites;
- Protocol for notifying local authorities (i.e., Sheriff, Police) should site looting and other illegal activities occur during construction.

During monitoring, the archaeologist and consulting Native American tribe(s) may adjust the frequency—from continuous to intermittent—of the monitoring based on the conditions and professional judgment regarding the potential to affect resources. If cultural materials are encountered, all soil-disturbing activities within 100 feet in all directions of the find shall cease until the resource is evaluated. The archaeological monitor shall immediately notify the Project Proponent of the encountered resource. After making a reasonable effort to assess the identity, integrity, and significance of the encountered resource, in consultation with the consulting culturally affiliated Native American tribe(s), the archaeological monitor shall present the findings of this assessment and proceed according to the provisions of Mitigation Measure CUL-2 and, if applicable, Mitigation Measure CUL-3.

**Mitigation Measure CUL-3: Inadvertent Discovery of Cultural Resources.**
This measure applies to all reaches. If pre-contact or historic-era archaeological resources are encountered during Project implementation, the Project Proponent will halt all construction activities within 100 feet of the resource, and a qualified archaeologist, defined as an archaeologist meeting the U.S. Secretary of the Interior's Professional Qualification Standards for Archaeology, shall inspect the find within 24 hours of discovery and notify the Project Proponent of their initial assessment. Pre-contact archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include building or structure footings and walls, and deposits of metal, glass, and/or ceramic refuse.

If the Project Proponent determines, based on recommendations from a qualified archaeologist and a Native American representative (if the resource is pre-contact), that the resource may qualify as a historical resource or unique archaeological resource (as defined in CEQA Guidelines section 15064.5) or a tribal cultural resource (as defined in Public Resources Code section 21080.3), the resource shall be avoided, if feasible, and the property owner shall be notified (if different than the Project Proponent). Consistent with section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement.

If avoidance is not feasible, the Project Proponent shall consult with appropriate Native American tribes (if the resource is pre-contact), and other appropriate interested parties to determine treatment measures to avoid, minimize, or mitigate any potential impacts on the resource pursuant to Public Resources Code section 21083.2, and CEQA Guidelines section 15126.4. This shall include documentation of the resource and may include data recovery (according to Public Resources Code section 21083.2), if deemed appropriate, or other actions, such as treating the resource with culturally appropriate dignity and protecting the cultural character and integrity of the resource (according to Public Resources Code section 21084.3). The final disposition of archaeological and historical resources recovered on State lands under the jurisdiction of the California State Lands Commission must be approved by the Commission.

2. **Impact CUL-3: Disturb any human remains, including those interred outside of dedicated cemeteries.**

   **Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

   **Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts on human remains.

   **Mitigation Measure CUL-4: Inadvertent Discovery of Human Remains.**
   This measure applies to all reaches. In the event of discovery or recognition of any human remains during construction activities, the Project Proponent will cease all such activities within 100 feet of the find until the County Coroner has been contacted to determine that no investigation of the cause of death is required. The Native American Heritage Commission (NAHC) will be contacted within 24 hours if it is determined that the remains are Native American and the property owner will be notified of the discovery (if different than the Project Proponent). The NAHC will then identify the person or persons it believes to be the most likely descendant from the deceased Native American, who in turn would make recommendations to the lead agency for the appropriate means of treating the human remains and any grave goods.

3. **Impact C-CUL-1: The Project, in combination with past, present, and probable future projects in the Project area, could result in significant adverse impacts related to cultural resources.**

**Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

**Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address cumulative impacts on cultural resources.

**Mitigation Measures CUL-1 through CUL-4** (refer to Impacts CUL-2 and CUL-3)

## 4.5 Tribal Cultural Resources

1. **Impact TCR-1: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe.**

   **Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

   **Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts on tribal cultural resources.

   **Mitigation Measures CUL-1 through CUL-4** (refer to Impact CUL-2 and CUL-3)

2. **Impact C-TCR-1: The Project, in combination with past, present, and probable future projects in the Project area, would not result in significant adverse impacts related to tribal cultural resources.**

   **Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

   **Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address cumulative impacts on tribal cultural resources.

   **Mitigation Measures CUL-1 through CUL-4** (refer to Impact CUL-2 and CUL-3)

## 4.6 Hazards, Hazardous Materials, and Wildfire

1. **Impact HAZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment.**

   **Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

**Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address hazards and hazardous materials impacts.

**Mitigation Measures HYD-1** (refer to Impact HYD-1)

**Mitigation Measure HAZ-1: Health and Safety Plan.**
This measure applies to all reaches. Where adopted plans are in place with measures and protocols to achieve performance standards related to hazardous soil and groundwater management (e.g., the CRMP for the 1990 Bay Road Site in the South of Bay Road Reach [prepared for and administered by RWQCB] and the Area-Wide Risk Management Plan for the Sycamore Real Estate Site in the North of Bay Road Reach [prepared for and administered by RWQCB]), the Project Proponent would implement the adopted measures to protect human health and the environment from potential impacts related to exposure to hazardous materials.

For construction sites outside of adopted plan areas, before the start of ground-disturbing activities at a Project site, including grading, excavation, or demolition of structures, the Project Proponent shall require that the construction contractor(s) retain a qualified professional to prepare a site-specific health and safety plan (HSP) in accordance with federal OSHA regulations (Code of Federal Regulations title 29, section 1910.120) and Cal/OSHA regulations (California Code of Regulations title 8, section 5192). The HSP shall be submitted to the Project Proponent and San Mateo County or the applicable city for review before the start of demolition and construction activities and as a condition of the grading, construction, and/or demolition permit(s). The HSP shall include, but not be limited to, the following elements:

- Designation of a trained, experienced site safety and health supervisor who has the responsibility and authority to develop and implement the site HSP.
- A summary of all potential risks to demolition and construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals.
- Specified personal protective equipment and decontamination procedures, if needed.
- The requirement to prepare documentation showing that HSP measures have been implemented during construction (e.g., tailgate safety meeting notes with signup sheet for attendees).
- A requirement specifying that any site worker who identifies hazardous materials has the authority to stop work and notify the site's safety and health supervisor.
- Emergency procedures, including the route to the nearest hospital.
- Procedures to follow if evidence of potential soil or groundwater contamination is encountered (such as soil staining, noxious odors, debris, or buried storage containers). These procedures shall be followed in accordance with hazardous waste operations regulations and shall specifically include, but not be limited to, immediately stopping work in the vicinity of the unknown hazardous materials release; notifying the Project Proponent and the RWQCB; and retaining a qualified environmental firm to perform sampling and remediation.

The construction contractor shall implement the HSP to protect construction workers, the public, and the environment during all ground-disturbing and demolition activities.

**Mitigation Measure HAZ-2, Soil Management Plan.**
This measure applies to all reaches. Contaminated soil is well documented in the Project area (such as the Bay Road Holdings LLC site at 2081 Bay Road in East Palo Alto). Where adopted plans are in place with measures and protocols to achieve performance standards related to hazardous soil and groundwater management (e.g., the CRMP for the 1990 Bay Road property in the South of Bay Road Reach and the Area-Wide Risk Management Plan for the Sycamore Real Estate Site in the North of Bay Road Reach), the Project Proponent would implement the adopted measures to protect human health and the environment from potential impacts related to exposure to hazardous materials.

For construction sites outside of adopted plan areas and within or adjacent to known contamination sites, using existing data to the extent practicable, the Project Proponent or its contractor(s) shall develop and implement a Soil Management Plan that specifies how the construction contractor shall remove, handle, transport, and dispose of all excavated material in a safe, appropriate, and lawful manner. The plan shall identify protocols for: training workers to recognize potential soil contamination (such as soil staining, noxious odors, debris, or buried objects or containers), soil testing, and disposal by a qualified contractor in the event that contamination is identified, and identification of approved disposal sites (e.g., approved landfill or reuse site). Soil testing would occur prior to excavation in areas previously documented as having contaminated soil or groundwater and analyzed by an offsite laboratory that is part of the California Environmental Laboratory Accreditation Program (ELAP). In addition, soil testing would occur in other areas where soil staining, noxious odors, debris, or buried objects or containers are encountered during construction. This may include use of a portable ionization detector for volatile organic chemicals, colorimetric tubes for metals, or other suitable field screening techniques. Based on ELAP laboratory results, soil that meets beneficial reuse criteria may be reused onsite. Beneficial reuse criteria will consider the location of reuse- i.e. South Bay Salt Ponds Master Quality Assurance Project Plan for beneficial reuse and the San Francisco Bay Water Board's Environmental Screening Levels. Contract specifications shall mandate approval of the Soil Management Plan by the Project Proponent as well as full compliance with all applicable local, state, and federal regulations related to the identification, transportation, and disposal of hazardous materials.

2. **Impact HAZ-3: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment.**

**Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

**Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts related to hazardous materials sites.

**Mitigation Measures HAZ-1, HAZ-2, and HYD-1b** (refer to Impact HAZ-1 and HYD-1)

3. **Impact HAZ-5: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plans.**

   **Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

   **Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts on emergency response.

   **Mitigation Measure TRA-1** (refer to Impact TRA-1)

4. **Impact C-HAZ-1: The Project, in combination with past, present, and probable future projects in the Project area, would not result in significant adverse impacts related to hazards and hazardous materials.**

   **Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

   **Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address cumulative impacts on hazards and hazardous materials.

   **Mitigation Measures HAZ-1, HAZ-2, and HYD-1b** (refer to Impacts HAZ-1 and HYD-1)

## 4.7 Hydrology and Water Quality

1. **Impact HYD-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.**

   **Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

   **Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts on water quality.

   **Mitigation Measure BIO-10** (refer to Impact BIO-1)

   **Mitigation Measure HYD-1a: Master QAPP for Imported Terrestrial Fill.**
   This measure applies to imported fill for all reaches including those outside the Refuge. The Project Proponent shall implement the requirements of the Master Quality Assurance Project Plan (Master QAPP) for the Don Edwards San Francisco Bay National Wildlife Refuge for all imported terrestrial fill to be used on the Project site. Consistent with the Master QAPP, fill testing shall be required, and no imported fill shall be placed that does not meet the Master QAPP process or requirements. Documentation shall be prepared to demonstrate compliance with the Master QAPP that specifies the identities and qualifications of the Project's team members, the

Project purpose, Project-specific permits (including the agency-specific identification numbers for those permits), and project-specific material handling protocols.

**Mitigation Measure HYD-1b: Groundwater Handling Requirements.**
This measure applies to the South of Bay Road, North of Bay Road and Marsh Road reaches. If excavations for the North of Bay Road Reach east of 2081 Bay Road would occur in East Slough (located between 2081 Bay Road and the existing Bay Trail) or extend below approximately 5 feet below ground surface, dewatering of groundwater is likely. Excavations for the Marsh Road Reach and South of Bay Road Reach could also require dewatering. If groundwater is encountered, and dewatering is necessary, the Project Proponent shall temporarily store and sample the groundwater to evaluate disposal options, which may include but are not limited to discharge to sanitary sewer or storm drain, application to land, or offsite disposal. Prior to discharge, a qualified engineer or other qualified professional shall review analytical sampling results and develop a proposed discharge that prevents the release of groundwater with contaminant levels that exceed the final Media Cleanup Objectives for Romic East Palo Alto (2081 Bay Road) in Table 1 of the EPA *Final Remedy Decision for Former Romic Environmental Technologies Corporation Facility, East Palo Alto, California*, July, 2008, unless otherwise specified by the EPA, Department of Substances Control, and RWQCB. The Project proponent shall document the proposed discharge approach in a groundwater management plan and submit it to the EPA, Department of Substances Control, and RWQCB for review. If discharging to the sanitary sewer is a possibility, the Project proponent shall contact the East Palo Alto Sanitary District to inquire about obtaining a special discharge permit.

2. **Impact HYD-3: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or impede or redirect flood flows.**

**Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

**Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts on drainage.

**Mitigation Measure HYD-2a: Runnymede Street Stormwater Management.**
This measure applies to the South of Bay Road Reach. The Project Proponent shall include a pump station in the South of Bay Road Reach levee, a pipeline over the levee, or other method designed by a qualified engineer to convey discharge from the stormwater drainage system at the eastern end of Runnymede Street to San Francisco Bay. If the proposed Runnymede Pump Station has been completed inland of the proposed shoreline protection, then the conveyance shall be sized to sufficiently convey the maximum flow from Runnymede Pump Station and shall include a discharge structure consistent with the proposed Runnymede Pump Station's discharge structure. If the Runnymede Pump Station has not been completed, then the Project proponent shall incorporate into the proposed SAFER Bay Project a pump station, stormwater detention

storage, and/or other conveyance sized to store or convey the additional runoff added to the drainage system by the elimination of eastern gravity outfalls north of Bay Road. The conveyance, storage, and/ or pump station shall be operational prior to construction of the North of Bay Road shoreline protection.

**Mitigation Measure HYD-2b: Substation and Marsh Restoration Reach Stormwater Infrastructure.**
The Project Proponent shall conduct a detailed hydraulic analysis that assesses whether the portions of Pond R2 inboard of the proposed shoreline protection are sufficiently sized to detain runoff from the Ravenswood Substation during the 100-year recurrence interval precipitation event without flooding the Ravenswood Substation. If the portions of Pond R2 are not sufficient to detain runoff from the 100-year recurrence interval precipitation event, the Project proponent shall design and construct stormwater infrastructure that is sufficiently sized to accommodate the volume of runoff that exceeds the detention capacity of the portions of Pond R2 inboard of the levee. The stormwater infrastructure shall be designed by a qualified professional and could include extension of existing stormwater conveyance infrastructure in the frontage road to the Ravenswood Substation or other methods. The stormwater infrastructure shall be designed to prevent non-stormwater discharges from entering San Francisco Bay.

**Mitigation Measure HYD-2c: Bayfront Canal Drainage Conveyance Design.**
This measure applies to the Marsh Road and Bedwell Bayfront reaches. The Project Proponent shall include a pump station in the Marsh Road or Bedwell Bayfront Reach levee, a pipeline over the levee, or other method designed by a qualified engineer to convey discharge from the Bayfront Canal to San Francisco Bay. The conveyance design shall be based on updated stormwater drainage system modeling that includes improvement projects to storm drain systems since 2023 and incorporates the effects of the Marsh Road Reach levee and expected cumulative projects on storage capacity in Bayfront Canal. The conveyance shall be designed with sufficient capacity to avoid increasing flood water surface elevations in developed areas near Bayfront Canal and Atherton Channel. The conveyance shall be operational prior to construction of the Marsh Road Reach.

3. **Impact HYD-5: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.**

**Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

**Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts on water quality or groundwater management plan.

**Mitigation Measures BIO-10, HYD-1a, and HYD-1b** (refer to Impact BIO-1 and HYD-1)

4. **Impact C-HYD-1: The Project, in combination with past, present, and probable future projects in the Project area, would result in significant adverse impacts related to hydrology and water quality.**

**Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

**Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address cumulative impacts on hydrology and water quality.

**Mitigation Measures HYD-1b, HYD-2a, and HYD-2c** (refer to Impacts HYD-1 and HYD-3)

# 4.8 Transportation

1. **Impact TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.**

**Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

**Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts on transportation plans.

**Mitigation Measure TRA-1: Implement Traffic Control Plan.**

This measure applies to all reaches. The Project Proponent shall require contractors to develop and implement traffic control plans. The traffic control plans shall be developed in coordination with SFCJPA member agencies, the San Francisco Bay Conservation and Development Commission, the City of Redwood City (for reaches within that city), Midpeninsula Regional Open Space District (for the North of Bay Road Reach), other contractors constructing Project components, and Caltrans and emergency service providers (e.g., Menlo Park Fire Protection District) as applicable in developing circulation and detour plans. The traffic control plans shall address transportation facilities adjacent to and directly affected by the Project. The traffic control plans shall address the transportation impact(s) of Project construction trips related to conflicts with applicable policies related to transportation safety, the circulation system, and emergency access. The traffic control plans shall include, but not be limited to, the following:

- Identification of full and partial closure of transportation facilities, including vehicle, bicycle, and pedestrian facilities.
- Circulation and detour plans that include the use of signage, flagging, fences, barriers, lights, and/or guards as necessary to guide vehicles, pedestrians, and cyclists through or around the construction zone and any temporary traffic control devices.
- Bicycle or pedestrian detour plans, where applicable.
- Identification of parking for construction workers along public roadways.
- Haul routes for construction trucks and staging areas for instances when multiple trucks arrive at the work sites.
- Protocols for updating traffic control plans to account for delays or changes in the Project construction schedule.
- Opportunities to direct construction traffic outside of peak hours where feasible.

The contractors shall submit draft traffic control plans to the Project Proponent for review not less than 30 days prior to construction. The Project Proponent implementing each Project component shall verify that the appropriate agencies have been consulted in the assembly of each plan and that all appropriate measures are included in the plan.

**2. Impact TRA-3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).**

**Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

**Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts on transportation design hazards.

**Mitigation Measure TRA-1** (refer to Impact TRA-1)

**Mitigation Measure TRA-2: Implement Roadway Maintenance Plan.**
This measure applies to all reaches that require truck trips on residential streets. The Project Proponent shall implement a Roadway Maintenance Plan for roadway segments that will be utilized by Project haul trips that are not designated truck routes. The Roadway Maintenance Plan shall maintain sufficient roadway quality to serve all existing modes served by affected roadways to be utilized by the proposed project under existing conditions. The Roadway Maintenance Plan shall include the following elements:

1. Prior to the start of construction, the Project Proponent or its contractor shall:
    a. Identify designated haul routes for the Project, identifying roadway segments to be utilized that are not designated haul routes which shall be subject to the Roadway Maintenance Plan.
    b. Perform a preconstruction survey to assess and document the pre-Project baseline conditions of roadway segments subject to the Roadway Maintenance Plan.
2. During construction, the Project Proponent shall periodically assess the conditions of roadways included in the Roadway Maintenance Plan and shall implement repairs to affected facilities to the extent that function and the safe use of such facilities is maintained throughout the duration of Project construction, except where temporary facilities closures are implemented.
3. At completion of Project construction, the Project Proponent shall improve roadway segments included in the Roadway Maintenance Plan such that roads damaged by Project construction will be repaired to a structural condition equal to that which existed prior to construction activity.

**3. Impact TRA-4: Result in inadequate emergency access.**

**Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

**Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address impacts on emergency access.

**Mitigation Measure TRA-1** (refer to Impact TRA-1)

4. **Impact C-TRA-1: The Project, in combination with past, present, and probable future projects in the Project area, would not result in significant adverse impacts related to transportation.**

   **Findings:** Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant effects of the Project on the environment (Pub. Res. Code §21081(a)(1); 14 Cal. Code Regs. §15091(a)(1)).

   **Facts in Support of Findings.** SFCJPA adopts the following mitigation measures that would address cumulative impacts on transportation.

   **Mitigation Measures TRA-1 and TRA-2** (refer to Impacts TRA-1 and TRA-3)

# 5. Significant and Unavoidable Effects

The Draft EIR identified the following significant or potentially significant impacts as remaining significant and unavoidable because the impacts cannot be mitigated to a less-than-significant level. Regarding each significant effect that is not avoided or that is not substantially lessened, the Agency is adopting a Statement of Overriding Consideration in accordance with CEQA Guidelines Section 15093.

## 5.1 Aesthetic Resources

Visual character and quality of the Project area would be altered for some sensitive viewer groups, as scenic views would be blocked by Project components in certain reaches. The presence of the Project levee and floodwall would change the visual character of the view by interrupting views of scenic resources, thereby reducing visual quality. To address this significant impact, Mitigation Measure AES-1 (Floodwall Design and Landscaping Treatments) would be implemented and would require the Project Proponent to incorporate design features to reduce the visual contrast created by the floodwalls. However, such design features cannot reduce the height of shoreline protection. Consequently, Mitigation Measure AES-1 would not reduce the visual contrast created by blocked views to a less-than-significant level. Therefore, impacts on visual character and quality would remain significant and unavoidable despite mitigation for those who currently have publicly accessible views within the South of Bay Road Reach, Dumbarton Approach Reach, Substation and Marsh Restoration Reach, Tech Campus Reach, and Bayfront Expressway Reach.

1. **Impact AES-1: Substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality.**

   **Findings:** The impact on visual character and quality due to Project implementation is not expected to be mitigated to a less-than-significant level with implementation of feasible mitigation measures. No alternate or additional to reduce this impact to a less-than-significant

level has been identified as feasible. Consequently, the SFCJPA finds that a significant residual impact is likely.

**Facts in Support of Findings.** SFCJPA adopts the following mitigation measure. Mitigation Measure AES-1 represents the best mitigation measure developed by SFCJPA that may be feasible and reasonable to implement during Project construction. No other feasible mitigation is available to reduce this impact to a less-than-significant level and this impact would remain significant and unavoidable.

While the No Project Alternative considered in the Draft EIR would not result in a significant unavoidable impact related to aesthetic resources, it would not achieve the public benefits of the proposed Project. Under the No Project Alternative, for instance, the SFCJPA would not implement the shoreline protection measures contemplated in the EIR, and flood risks would not be reduced from current conditions. Of the alternatives identified during the alternatives screening process, none were identified that could both reduce aesthetic impacts to a less-than-significant level and meet the Project objectives related to flood protection, habitat enhancement, and recreational improvements.

**Mitigation Measure AES-1: Floodwall Design and Landscaping Treatments.**
This measure applies to the South of Bay Road, Dumbarton Approach, Substation and Marsh Restoration, Tech Campus, and Bayfront Expressway reaches. During design of floodwalls, the Project Proponent shall incorporate context-sensitive design features to reduce the visual contrast and massing of any exposed floodwalls (i.e., sheet pile walls). At a minimum, these design features shall include one or more of the following, as appropriate to site conditions:

- Use of low-glare or integral color finishes.
- Incorporation of surface texturing, panel modulation, or similar treatments to break up large blank faces.
- Installation of native landscaping or other screening on the landward side of levees, where feasible and compatible with maintenance needs.

Prior to completion of final design, final sheet pile wall design and landscaping treatment plans shall be developed for each reach to which this measure applies.

## 5.2 Noise and Vibration

Construction activities in the South of Bay Road, North of Bay Road, Tech Campus, Bedwell Bayfront Park, and Marsh Road reaches would expose nearby sensitive receptors to noise levels that would either exceed the Federal Transit Authority's daytime criterion of 90 A-weighted decibels (dBA) $L_{eq}$[3] for

[3] When assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies. This method of frequency weighting is referred to as *A-weighting* and is expressed in units of decibels (dBA). $L_{eq}$ is the equivalent sound level, which describes noise over a specified period, typically 1 hour, in terms of a single numerical value. The $L_{eq}$ is the constant sound level, that would contain the same acoustic energy as the varying sound level during the same period (i.e., the average noise exposure level for the given period).

residential uses or represent an increase of more than 10 dBA over existing daytime ambient levels at the receptors. Implementation of Mitigation Measure NOI-1 (Construction Noise Control Measures) would attenuate construction noise; however, existing daytime ambient levels could still be exceeded by more than 10 dBA. Construction traffic would temporarily increase noise levels by more than 3 dBA at sensitive receptors in the North of Bay Road Reach despite implementation of Mitigation Measure NOI-1. Therefore, impacts within these reaches would remain significant and unavoidable even with implementation of Mitigation Measure NOI-1. In addition, the construction of other projects near the Project site (listed in Table 3.1-2 in Draft EIR Section 3.1, Overview) could overlap with the proposed Project, further exacerbating significant noise levels.

1. **Impact NOI-1: Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.**

   **Findings:** The increase in ambient noise levels due to Project construction is not expected to be mitigated to a less-than-significant level with implementation of feasible mitigation measures. No feasible mitigation is available to reduce this impact to a less-than-significant level and this impact would remain significant and unavoidable.

   While the No Project Alternative considered in the Draft EIR would not result in a significant unavoidable impact related to aesthetic resources, it would not achieve the public benefits of the proposed Project. Under the No Project Alternative, for instance, the SFCJPA would not implement the shoreline protection measures contemplated in the EIR, and flood risks would not be reduced from current conditions. Of the alternatives identified during the alternatives screening process, none were identified that could both reduce construction-phase noise impacts to a less-than-significant level and meet the Project objectives related to flood protection, habitat enhancement, and recreational improvements.

   **Facts in Support of Findings.** SFCJPA adopts the following mitigation measure. Mitigation Measure NOI-1 represents the best mitigation measure developed by SFCJPA that may be feasible and reasonable to implement during Project construction. No other feasible mitigation is available to reduce this impact to a less-than-significant level and this impact would remain significant and unavoidable.

   **Mitigation Measure NOI-1: Construction Noise Control Plan.**
   This measure applies to construction of the South of Bay Road, North of Bay Road, Tech Campus, Bayfront Expressway, Bedwell Bayfront Park, and Marsh Road reaches. The Project Proponent or its contractors shall develop and implement a Construction Noise Control Plan(s) that shall require implementation of specific noise attenuation measures during construction of these reaches to reduce the generation of construction noise. The Noise Control Plan(s) shall be submitted for review and approval by the City of East Palo Alto Community & Economic Development, City of Menlo Park Community Development Department, and City of Redwood City Community Development Department, as applicable. The Construction Noise Control Plan shall include, but not be limited to, the following measures:

- Designation of an onsite construction noise manager responsible for receiving and investigating construction noise complaints;

- Notification of the noise-sensitive receptors identified in Table 3.13-2, as well as noise-sensitive receptors along local road use for haul truck access, at least 30 days prior to the start of construction activities. This notice shall provide contact information for the designated onsite construction noise manager responsible for receiving and investigating construction noise complaints;

- A procedure for notifying the appropriate planning or public works department of any noise complaints within 1 week of receiving a complaint;

- A description of the measures that will be implemented to reduce construction noise levels, including, but not limited to:

    - Equipment and trucks used for construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds).

    - Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dBA. Quieter procedures, such as use of drills rather than impact tools, shall be used where feasible.

    - Stationary noise sources shall be located as far from adjacent receptors as possible, and shall be muffled and shielded from sensitive residential receptors by temporary barriers or enclosures.

    - Off-site truck queuing and staging on residential roads shall be prohibited unless specifically authorized by the Project's traffic control plan(s) required under Mitigation Measure TRA-1. All on-site queueing and staging of trucks shall occur as far from sensitive residential receptors as possible.

**2. Impact C-NOI-1: The Project, in combination with past, present, and probable future projects in the Project area, would result in significant adverse impacts related to noise and vibration.**

**Findings:** The combined effect of Project-related construction activities with construction activities of nearby cumulative projects (as shown on Draft EIR Figure 3.1-1) is not expected to be mitigated to a less-than-significant level with implementation of feasible mitigation measures. No feasible mitigation is available to reduce this impact to a less-than-significant level and this impact would remain significant and unavoidable.

Of the alternatives identified during the alternatives screening process, none were identified that could both reduce construction-phase noise impacts to a less-than-significant level and meet the

Project objectives related to flood protection, habitat enhancement, and recreational improvements.

**Facts in Support of Findings.** SFCJPA adopts the following mitigation measure. Mitigation Measure NOI-1 represents the best mitigation measure developed by SFCJPA that may be feasible and reasonable to implement during Project construction. No other feasible mitigation is available to reduce this impact to a less-than-significant level and this impact would remain significant and unavoidable.

**Mitigation Measure NOI-1: Construction Noise Control Plan.** (refer to Impact NOI-1)

# 6. Findings Regarding Project Alternatives

The Draft EIR included the following alternatives: No Project Alternative and the Modified Footprint Alternative, described below. The SFCJPA certifies the following regarding the alternatives analyzed in the EIR:

The EIR describes a reasonable range of alternatives to the project as proposed.

## 6.1 No Project Alternative

**Description.** Under this alternative, the Project would not be constructed. None of the actions described in Chapter 2 of the Draft EIR, *Project Description*, would occur. There would be no construction of shoreline protection features, and no new recreational facilities or improvements to existing recreational features would be constructed. In addition, tidal marshes that were previously lost to diking and filling would not be restored because tidal marsh restoration cannot happen until adequate flood protection for landward uses is in place. No nesting and foraging habitat for western snowy plover would be created, and existing western snowy plover habitat would not be protected from coastal flooding. Consequently, land uses in East Palo Alto and Menlo Park, including residential development, commercial development, public infrastructure (e.g., electrical substations, drinking water facilities, state highways), and existing trails along the shoreline, would remain vulnerable to coastal flooding and existing habitat would remain in its current condition.

Under the No Project Alternative, SFCJPA member agencies, Caltrans, and the Refuge (for berms impounding former salt ponds) would continue to monitor existing shoreline protection features and may periodically implement repairs to address erosion. If required to protect public safety or infrastructure from damage due to sudden risk of exposure (e.g., resulting from failure of an existing levee due to an unusually strong storm season causing accelerated erosion), temporary emergency shoreline protection measures (e.g., placement of revetment rock or sandbags) would be implemented if authorized by regulatory agencies with jurisdiction (e.g., the Bay Conservation and Development Commission).

With sea level rise increasing the vulnerability of existing land uses to bay flooding, SFCJPA member agencies and Caltrans may pursue other options to provide shoreline protection, which could include alternatives previously considered (such as those evaluated in the SAFER Bay Feasibility Report) or projects that benefit the individual cities (e.g., levees that terminate in high ground within the host

city) or parcels (e.g., placing fill under individual buildings to raise them above floodwater levels) but are not regionally integrated.

**Finding.** On the basis of comparing the extent to which the alternatives reduce or avoid significant impacts of the Project, the No Project Alternative would be the environmentally superior alternative in the short term because it would avoid the Project's significant and unavoidable impacts and other significant impacts of the Project related to aesthetics, air quality, biological resources, cultural resources, tribal cultural resources, hazards and hazardous materials, hydrology and water quality, noise, and transportation. However, the No Project Alternative allow flood risks to persist and to worsen with sea level rise, leading to potentially severe environmental and community consequences. The No Project Alternative would not accomplish the Project's purpose or objectives for shoreline protection, habitat restoration, and recreation improvements. SFCJPA rejects the No Project Alternative due to not meeting any of the project objectives. As such, it cannot effectively substitute for the Project and the SFCJPA rejects the No Project Alternative.

**Facts in Support of Finding.** The No Project Alternative would not meet any of the Project objectives. The No Project Alternative would not reduce the risk of flooding within the cities of East Palo Alto and Menlo Park from San Francisco Bay waters nor support the communities' objective to be removed from the FEMA floodplain; existing flood hazards and designations would persist. The No Project Alternative would not enable adaptation to climate change in ways that sustain and restore marsh habitat to support sensitive marsh species and enhance and protect habitat for western snowy plover because proposed shoreline protection and habitat restoration would not occur. Nor would the No Project Alternative expand opportunities for recreation and community connectivity since no improvements to trails would occur. Future maintenance requirements would be required for existing former salt pond berms that provide flood protection which would be at increased risk of failure. Lastly, the No Project Alternative essentially would remove a vehicle (the SAFER Bay Project) for coordinating with other agencies pursuing flood protection, restoration, and recreation goals in the region.

## 6.2 Draft EIR Modified Footprint Alternative

**Description.** This alternative involves changing shoreline protection to reduce the magnitude of impacts to waters of the U.S. and State and associated special-status species. The potential for changing the proposed alignment and/or design was evaluated for each reach and for segments within reaches. This alternative incorporates changes in the alignment and design (e.g., by incorporating a levee/floodwall hybrid design or a floodwall instead of a traditional levee) that are potentially feasible and would reduce impacts to waters of the U.S. and State. Draft EIR Figure 4-1 depicts the alternative; Draft EIR Table 4-2 summarizes key characteristics of the alternative in comparison to the Project by reach.

With this alternative, the design of shoreline protection changes from levee to levee/floodwall hybrid with a 3:1 horizontal to vertical transition zone in all or a portion of the North of Bay Road, Dumbarton Approach (through Pond SF2), Substation and Marsh Restoration, Bayfront Expressway, Bedwell Bayfront Park, and Marsh Road reaches and from levee/floodwall hybrid to floodwall for part of the Tech Campus Reach.

The floodwall included in part of the Tech Campus Reach under this alternative, with a wall top elevation of 18- to 19-feet North American Vertical Datum of 1988 (NAVD88), would be constructed between SR 84 and the eastern side of the Meta Headquarters, around a section of slough that receives flows from Caltrans' Ravenswood Pump Station (refer to Figure 4-1 of the Draft EIR). Ravenswood Pump Station operations (as well as an adjacent gravity stormwater drainage feature) would be incorporated into the floodwall design to allow discharges to the slough; consequently, there would be no need for a pump station through the levee (as proposed under the Project for the Tech Campus Reach). Changes to utilities are otherwise assumed to be similar to the proposed Project. With respect to habitat restoration, the slope of the transition zone habitat around the Ravenswood Substation would be 3:1 instead of 10:1 to reduce direct impacts on waters of the U.S. and state. With respect to recreation, under this alternative an approximately 600-foot pedestrian bridge (refer to red line on Figure 4-1) would be constructed between the proposed segment of Bay Trail adjacent to and north of SR 84 and the existing Public Shoreline Access Trail around Meta Headquarters. The trail that currently follows the section of slough between the Meta Headquarters and SR 84 would be decommissioned (displaced by the floodwall, refer to Figure 4-1 of the Draft EIR), and the levee around the Ravenswood Substation would be topped by a trail.

This alternative also incorporates floodwalls and a flood gate at the Ravenswood Substation access point. Incorporation of this configuration would provide flood protection to the Ravenswood Substation irrespective of the timing and design of Caltrans' plans for providing flood protection for the western approach to the Dumbarton Bridge.

Project phasing, schedule, construction details (work hours, staging, workforce, trail closures), and operation and maintenance are assumed to be the same as or similar to the proposed Project, although there would be no need to replace the Ravenswood Pump Station.

**Finding.** The magnitude of permanent impacts to wetland and aquatic habitats under the Draft EIR Modified Footprint Alternative would be less than the Project, although short-term significant and unavoidable aesthetic and noise impacts would be incrementally exacerbated. Between the alternatives studied in the Draft EIR, the Draft EIR Modified Footprint Alternative is considered the environmentally superior alternative. However, the Draft EIR Modified Footprint Alternative would cost more due to increased use of levee/floodwall hybrid design. SFCJPA rejects the Draft EIR Modified Footprint Alternative as infeasible based on economic considerations (cost) and due to meeting the project objectives to a lesser extent than the proposed Project.

**Facts in Support of Finding.** As discussed in Section 4.5 of the Draft EIR, the Draft EIR Modified Footprint Alternative would result in different impacts compared to the Project across several resource areas. For Aesthetic Resources, the Draft EIR Modified Footprint Alternative would adversely affect views of Ravenswood Slough and from the SR 84 view corridor to a greater degree due to the floodwall between SR 84 and Meta Headquarters, increasing visual contrast. For Biological Resources, the Draft EIR Modified Footprint Alternative would reduce permanent impacts on wetland and aquatic habitats but would interfere with terrestrial wildlife movement to a greater degree (a less-than-significant impact). The reduction in transition-zone width around the Ravenswood Substation would reduce the amount of high-tide upland refugia provided for sensitive marsh species targeted by the tidal restoration of Ponds R1 and R2; reduce the acreage available for marsh migration to provide

habitat for these species in response to sea level rise; and reduce the amount of suitable breeding and foraging habitat for California species of special concern Bryant's savannah sparrow and San Francisco common yellowthroat. In addition, a traditional levee through Pond SF2 (as proposed under the Project) is considered ecologically preferable to the levee/floodwall hybrid design due to a traditional levee's ability to provide substantially more upland high-tide refugia without adverse effects to sensitive marsh habitat (Pond SF2 is open water). For Hydrology and Water Quality, it would eliminate the need for a new pump station and reduce runoff into the Ravenswood Substation, thereby reducing potential flooding. For Noise and Vibration, the Draft EIR Modified Footprint Alternative would increase sheet pile driving, exposing more receptors and structures to short-term, significant and unavoidable noise impacts in not only the reaches associated with the project as proposed (South of Bay Road, Tech Campus, Bedwell Bayfront Park, and Marsh Road reaches) but also the North of Bay Road Reach.

The Draft EIR Modified Footprint Alternative would meet most Project objectives but would not satisfy the following objectives as well as the proposed Project:

- Minimize future maintenance requirements.

- Enable adaptation to our changing climate by implementing flood protection in ways that sustain and restore marsh habitat, support sensitive tidal marsh species, and enhance and protect habitat for western snowy plover, consistent with the South Bay Salt Ponds Restoration Project and other restoration efforts.

The Draft EIR Modified Footprint Alternative involves substantially more shoreline protection using the levee/floodwall hybrid design, which is less adaptive to climate change than traditional levees and would require wholesale replacement, causing additional environmental impacts in the future at greater cost.

## 6.3 Final EIR Modified Footprint Alternative

**Description.** The SFCJPA has determined that, following certification of the EIR, it will adopt select features of the Modified Footprint Alternative in lieu of the corresponding features of the Project as described in Draft EIR Chapter 2. The select features of the Modified Footprint Alternative that will be adopted and made part of the SAFER Bay Project include the following:

- Flood wall and flood gate in front of the entrance to the Ravenswood Substation.
- Floodwall routed around a segment of the Ravenswood Slough between SR 84 and Meta Headquarters.

- An approximately 600-foot long pedestrian bridge on piers between SR 84 and the Public Shoreline Access Trail around Meta Headquarters.

This "Final EIR Modified Footprint Alternative" is described in Section 1.4 in Chapter 1, *Introduction*, of the RTC document; Figure RTC-1 in Section 1.4 presents the Project location and components with inclusion of these features.

Project phasing, schedule, construction details (work hours, staging, workforce, trail closures), and operation and maintenance would be the same as or similar to the Project as proposed.

**Finding.** The SFCJPA finds that certain impacts remain significant and unavoidable (Aesthetic Resources and Noise and Vibration); however, specific economic, legal, social, technological, and other benefits of the Project outweigh these significant and unavoidable impacts. Accordingly, the SFCJPA adopts the Final EIR Modified Footprint Alternative in lieu of the corresponding features of the Project as described in Draft EIR Chapter 2.

**Facts in Support of Finding.** The Final EIR Modified Footprint Alternative would provide flood protection around Ravenswood Substation by incorporating floodwalls and a flood gate irrespective of the timing and design of Caltrans' plans for providing flood protection for the western approach to the Dumbarton Bridge. For Hydrology and Water Quality, Ravenswood Pump Station operations (as well as an adjacent gravity stormwater drainage feature) would be incorporated into the floodwall design to allow discharges to the slough; consequently, there would be no need for a pump station through the levee. Regarding biological resources, the floodwall within the Tech Campus Reach and pedestrian bridge would reduce impacts to biological resources by avoiding impacts to 2.77 acres of marsh. The Final EIR Modified Project Alternative would preserve the traditional levee through Pond SF2 and is considered ecologically preferable to the levee/floodwall hybrid design associated with the Draft EIR Modified Project Alternative due to a traditional levee's ability to provide substantially more upland high-tide refugia without adverse effects to sensitive marsh habitat (Pond SF2 is open water). The Final EIR Modified Project Alternative would preserve the 10:1 (horizontal to vertical) transition-zone slope around the Ravenswood Substation, which would provide more high-tide upland refugia provided for sensitive marsh species targeted by the tidal restoration of Ponds R1 and R2; provide more acreage for marsh migration to provide habitat for these species in response to sea level rise; and provide more suitable breeding and foraging habitat for California species of special concern Bryant's savannah sparrow and San Francisco common yellowthroat in comparison to the Draft EIR Modified Project Alternative. For Noise and Vibration, the Draft EIR Modified Footprint Alternative would increase sheet pile driving, but not in proximity to sensitive receptors, in contrast to the Draft EIR Modified Project Alternative. For these reasons, the Final EIR Modified Project Alternative is adopted.

## Figure RTC-1 Project Location and Components including select features of the Modified Footprint Alternative


SOURCES: NAIP Imagery, 2024; HDR, 2024; ESA, 2026

NOTES: Reaches to be evaluated at a project-level of detail are shown in solid lines; reaches to be evaluated at a program-level of detail are shown as dashed lines. The northern ends of the Bayfront Expressway and Bedwell Bayfront Park Reaches tie into high ground at Bedwell Bayfront Park.

SAFER Bay Project

**Figure RTC-1**
Project Location and Components
including select features of the Modified Footprint Alternative

ESA