STRATEGY TO ADVANCE FLOOD PROTECTION, ECOSYSTEMS, AND RECREATION ALONG SAN FRANCISCO BAY (SAFER BAY) PROJECT

Final Environmental Impact Report

State Clearinghouse No. 2022040504

SAN FRANCISQUITO CREEK
JOINT POWERS AUTHORITY

May 2026

ESA

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Acronyms and Abbreviations

ADA	Americans with Disabilities Act
Air District	Bay Area Air District
AMSL	above mean sea level
ANSI	American National Standards Institute
BAAQMD	Bay Area Air Quality Management District
Basin Plan	Water Quality Control Plan for the San Francisco Bay Basin
Bay Area	San Francisco Bay Area
Bay Plan	San Franciso Bay Plan
Bay Trail	San Francisco Bay Trail
BCDC	San Francisco Bay Conservation and Development Commission
Board	San Francisquito Creek Joint Powers Authority's Board of Directors
BOD	Basis of Design
BRRIT	Bay Restoration Regulatory Integration Team
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCCR	Citizens Committee to Complete the Refuge
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
cfs	cubic feet per second
cm	centimeters
CORE	Clean Off Road Equipment Voucher Incentive Program
CRMP	construction risk management plan
CSLC	California State Lands Commission
dBA	A-weighted decibels
DEIR	Draft Environmental Impact Report
DMMO	Dredged Material Management Office
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EFH	Essential Fish Habitat
EIR	environmental impact report
EM	engineering manuals
ER	engineering regulations
ESA	Environmental Science Associates
ESLs	Environmental Screening Levels
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration
GHG	greenhouse gas

HRA	health risk assessment
HRMP	Habitat Restoration and Monitoring Plan
HSP	health and safety plan
H.T. Harvey	H.T. Harvey & Associates
km	kilometers
Master QAPP	master quality assurance project plan
MFA	Modified Footprint Alternative
MG	million gallons
MHTL	mean high tideline
MHW	mean high water
Midpen	Midpeninsula Regional Open Space District
mg/kg	microgram/kilogram
mm	millimeters
MMRP	mitigation monitoring and reporting program
MRP	Municipal Regional Stormwater NPDES Permit
MTC	Metropolitan Transportation Commission
MTCO2e	metric tons of CO2 equivalent
NAVD88[1]	North American Vertical Datum of 1988
NOP	notice of preparation
North of Bay Road	North of Bay Road–East Palo Alto
NPDES	National Pollutant Discharge Elimination System
OneShoreline	San Mateo County Flood and Sea Level Rise Resiliency District
PAHs	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PG&E	Pacific Gas and Electric Company
PM	particulate matter
PM_{10}	particulate matter less than or equal to 10 microns in diameter
$PM_{2.5}$	particulate matter less than or equal to 2.5 microns in diameter
ppm	parts per million
Project	Strategy to Advance Flood Protection, Ecosystems, and Recreation along San Francisco Bay Project
Refuge	Don Edwards San Francisco Bay National Wildlife Refuge
RSAP	Regional Shoreline Adaptation Plan
RTC	responses to comments
RWQCB	regional water quality control board
SAFER	Strategy to Advance Flood Protection, Ecosystems, and Recreation along San Francisco
SAFER Bay Project	Strategy to Advance Flood Protection, Ecosystems, and Recreation along San Francisco Bay Project

[1] Unless otherwise noted, elevations discussed in this document are assumed to be in NAVD88.

SAP	Sediment Analysis Plan
SSAP	Subregional Shoreline Adaptation Plan
SamTrans	San Mateo County Transit District
SAR	Sediment Analysis Results
SB	Senate Bill
SBSPRP	South Bay Salt Ponds Restoration Project
SFBBO	San Francisco Bay Bird Observatory
SFCJPA	San Francisquito Creek Joint Powers Authority
SFPUC	San Francisco Public Utilities Commission
South Bay	South San Francisco Bay
South of Bay Road	South of Bay Road–East Palo Alto
Specific Plan	Ravenswood Business District/4 Corners Specific Plan
SR	State Route
SSAP	Subregional Shoreline Adaptation Plan
TACs	toxic air contaminants
T-zone	transition zone
U.S. 101	United States Route 101
USACE	United States Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
VOC	volatile organic compounds
WSP	western snowy plover

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CHAPTER 1
Introduction to Response to Comments

1.1 Purpose of the Response to Comments Document

The purpose of this Responses to Comments (RTC) document is to present comments on the Draft Environmental Impact Report (Draft EIR) for the proposed Strategy to Advance Flood Protection, Ecosystems, and Recreation along San Francisco Bay Project (SAFER Bay Project or Project), to respond in writing to comments on environmental issues, and to revise the Draft EIR as necessary to provide additional clarity. This document has been prepared pursuant to the California Environmental Quality Act (CEQA) Guidelines sections 15088 and 15204, which require the lead agency to evaluate and respond in writing to comments that raise significant environmental issues related to the adequacy of the Draft EIR, including its analysis of environmental impacts, mitigation measures, and Project alternatives. Comments that do not pertain to the Project or the environmental analysis—such as general questions, opinions, or topics outside the scope of CEQA—are included in the administrative record but do not require a formal written response. In addition, pursuant to the CEQA Public Resources Code sections 21091(d)(2)(A) and (B), the San Francisquito Creek Joint Powers Authority (SFCJPA) has considered the comments received on the Draft EIR, evaluated the issues raised, and is providing written responses that address each substantive environmental issue that has been raised by the commenters. In accordance with CEQA, the responses to comments focus on clarifying the Project description and addressing physical environmental issues associated with the Project. In addition, this RTC document includes text changes to the Draft EIR initiated by the SFCJPA and consultant staff.

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

The Draft EIR together with this RTC document constitutes the Final EIR for the Project in fulfillment of CEQA requirements consistent with CEQA Guidelines section 15132. The Final EIR has been prepared in compliance with CEQA, including the CEQA Guidelines. It is an informational document for use by (1) governmental agencies and the public to aid in the planning and decision-making process by disclosing the physical environmental effects of the Project and identifying possible ways of reducing or avoiding the potentially significant impacts; and (2) SFCJPA's Board of Directors (the Board) where applicable prior to their decision to approve, disapprove, or modify the Project.

This RTC document provides written responses to all substantive comments received during the public review period. It contains the following: (1) a list of persons, organizations, and public agencies

commenting on the Draft EIR; (2) copies of comments received on the Draft EIR; (3) written responses to those comments; and (4) revisions to the Draft EIR to clarify or correct information in the Draft EIR. See Section 1.3 for a description of the overall contents and organization of this RTC document.

1.2 Environmental Review Process

1.2.1 Notice of Preparation and Public Scoping

In accordance with sections 15063 and 15082 of the CEQA Guidelines, on April 22, 2022, SFCJPA distributed a notice of preparation (NOP) to responsible and other public agencies and interested parties to begin the formal CEQA scoping process for the Project. The NOP informed agencies and the public about the Project and SFCJPA's decision to prepare an EIR and included a request for comments on environmental issues that should be addressed in the EIR.

SFCJPA held virtual public scoping meetings at 6:00 p.m. on Wednesday, May 11, 2022, and Thursday, May 19, 2022, to receive comments on the scope of the EIR. The public comment period started on April 22, 2022, and ended on June 6, 2022. Appendix SCOP presents the NOP and written comments received during the scoping period. SFCJPA has considered comments pertaining to the scope and content of the EIR made by the public and agencies in preparing this EIR.

1.2.2 Draft EIR Public Review

The Draft EIR was published on December 1, 2025, and circulated to local, state, and federal agencies and to interested organizations and individuals for their review and comment. The public review period started on December 1, 2025, and ended on January 23, 2026. Paper copies of the Draft EIR were made available for public review at SFCJPA's offices (750 Menlo Avenue, Suite 250, Menlo Park), East Palo Alto Library (2415 University Avenue, East Palo Alto), and Belle Haven Library (100 Terminal Avenue, Menlo Park). An electronic copy of the Draft EIR could be accessed through the internet on SFCJPA's website at the following address: https://www.sfcjpa.org/safer-bay-project.

During the public review period, the SFCJPA held three informational public meetings to ensure that agencies and members of the public had an opportunity to ask questions and submit comments related to the Draft EIR. The first public meeting was held on December 15, 2025, at the East Palo Alto Government Center Council Chamber, 1st Floor (2415 University Avenue East Palo Alto, CA 94303). The second public meeting was held December 17, 2025, at Belle Haven Community Campus (100 Terminal Ave, Menlo Park, CA 94025). In addition, the regularly scheduled SFCJPA Board of Directors Meeting on December 18, 2025, included a public hearing with a presentation on the Draft EIR and SAFER Bay Project. The meeting was held at Menlo Park City Hall, City Council Chambers (751 Laurel Street, Menlo Park, CA 94025) and was also available online via Zoom.

During the Draft EIR public review period, SFCJPA received comments from public agencies, organizations, and private individuals. Refer to Chapter 2, *List of Persons Commenting*, for a complete list of persons, agencies, and organizations commenting on the Draft EIR.

1.2.3 Response to Comments Document and Final EIR

The comments received during the public review period are the subject of this RTC document, which addresses all substantive written comments on the Draft EIR. Public participation is an essential part of the CEQA process. CEQA Guidelines section 15201 mandates public agencies incorporate ample opportunities for public involvement in its CEQA procedures. Pursuant to CEQA Guidelines section 15204(a), the focus of public review should be "on the sufficiency of the [Draft EIR] in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the Project might be avoided or mitigated." In addition, "when responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR." CEQA Guidelines section 15088 specifies that the lead agency is required to respond to the comments on the major environmental issues raised in the comments received during the public review period. Therefore, this RTC document is focused on the sufficiency and adequacy of the Draft EIR in disclosing the significance of the environmental impacts of the Project that were evaluated in the Draft EIR.

As indicated in Section 1.1, the Draft EIR together with this RTC document constitutes the Final EIR for the Project. SFCJPA distributed this RTC document for review to the Board, as well as to the agencies, organizations, and individuals who commented on the Draft EIR. The Board will consider the adequacy of the Final EIR—consisting of the Draft EIR and this RTC document—in complying with the requirements of CEQA. If the Board finds that the Final EIR is complete, accurate, and complies with CEQA requirements, it will certify the Final EIR as adequate under CEQA.

If the Final EIR is certified, the Board will then review and consider the Final EIR before making a decision to approve the Project. If the Board decides to approve the Project, it will adopt CEQA findings, including adopting or rejecting mitigation measures and alternatives to avoid or reduce significant impacts, and a mitigation monitoring and reporting program (MMRP). Consistent with CEQA Guidelines section 15097, the purpose of the MMRP is to ensure implementation of the mitigation measures identified in the Final EIR and adopted by decision-makers to mitigate or avoid the Project's significant environmental effects. CEQA also requires the adoption of findings prior to approval of a project for which a certified EIR identifies significant environmental effects (CEQA Guidelines sections 15091 and 15092). If the EIR identifies significant adverse impacts that cannot be mitigated to less-than-significant levels and the Project is approved, the findings must include a statement of overriding considerations for those impacts (CEQA Guidelines section 15093[b]).

1.3 Document Organization

Subsequent chapters of this document include the following:

- **Chapter 2, *List of Persons Commenting*.** This chapter lists the persons, agencies, and organizations that submitted comments on the Draft EIR and describes the coding and organization of comments.
- **Chapter 3, *Responses to Comments Received on the Draft EIR*.** This chapter presents the substantive comments received on the Draft EIR together with responses to those comments. The comments and responses in this chapter are organized by agency, organization and business, individual, and public meeting oral comments, and alphabetically within those categories. In some

cases, similar comments on the same topic have been grouped together into a single, comprehensive "global response."

- **Chapter 4, *Draft EIR Revisions*.** This chapter presents changes and additions to the Draft EIR. SFCJPA has made changes and additions to the Draft EIR in response to comments received on the Draft EIR and/or to clarify statements and conclusions made in the Draft EIR. In all cases, changes and additions are provided to clarify or correct content in the Draft EIR or to add information received after the release of the Draft EIR. None of the changes or additions in Chapter 4 affect the conclusions presented in the Draft EIR.
- ***Appendix RTC-1.*** This appendix includes full copies of the written and oral comments received on the Draft EIR. Appendix RTC-1 also shows, in the margin of each letter, the bracketing and comment code used to identify comments and the corresponding response code.
- ***Appendix RTC-2.*** This appendix includes the design drawing for South of Bay Road Reach.
- ***Appendix BIO3-REV.*** This appendix is a revised version of the Habitat Restoration Basis of Design Report (presented in the Draft EIR as Appendix BIO3).

1.4 Modified Footprint Alternative

The SFCJPA has determined that, following certification of the EIR, it will consider approval of 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.

1.4.1 Modified Footprint Alternative

The select features of the Modified Footprint Alternative that will be considered for approval 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 State Route (SR) 84 and Meta Headquarters.
- Pedestrian bridge on piers between SR 84 and the Public Shoreline Access Trail around Meta Headquarters.

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. **Figure RTC-1** presents the Project location and components with inclusion of these features. Descriptions of these features excerpted from Draft EIR Chapter 4 are presented for reference.

Within the Substation and Marsh Restoration Reach, the Project would 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 the California Department of Transportation's (Caltrans') plans for providing flood protection for the western approach to the Dumbarton Bridge.

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

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). 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) 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 on marsh by 2.77 acres.

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.

1.4.2 Environmental Commitment

In addition to the above modifications, the SFCJPA proposes to include the following environmental commitment in findings associated with Project approval:

- 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.

Although this measure could, if implemented, reduce potential construction noise impacts and construction-related air pollutant emissions, it is included as an environmental commitment rather than a mitigation measure for the following reasons:

- The Draft EIR analyses concluded that with implementation of Mitigation Measure AIR-1: Best Management Practices for Construction-Related Fugitive Dust Emissions, all air quality impacts would either be less than significant or could be mitigated to less-than-significant levels.
- Mitigation Measure NOI-1: Construction Noise Control Plan specifically requires the preparation of a noise control plan that describes measures for reducing construction noise levels, such as but not limited to, the use of equipment that has the best available noise control technique and the use of hydraulic or electrically powered impact equipment "wherever possible."
- CEQA Guidelines sections 15064 and 15126.4 require that mitigation measures be feasible, proportional to the impact, and based on substantial evidence. CEQA does not require an agency to impose mitigation that is speculative or not currently achievable in the industry.

- The large-scale availability of zero-emission heavy construction equipment cannot be guaranteed at this time,[1] and such a measure is not warranted for the EIR's air quality impacts; consequently, mitigation measures in this EIR do not and cannot compel full-scale use of electric construction equipment.
- Notwithstanding the above, the SAFER Bay Project Team recognizes that the Project's construction timeline extends over many years, and the market for zero-emission equipment is expected to expand. Consequently, the SFCJPA will include the above measure as an environmental commitment in the Findings prepared for Project approval.

This approach aligns with current statewide air quality policy goals such as accelerating the adoption of zero-emission off-road equipment through financial incentives without committing to equipment types that may not exist or may not be functional for specific construction tasks associated with the Project.

[1] California's regulatory landscape for off-road equipment is evolving but does not presently mandate zero-emission construction equipment. The California Air Resources Board's (CARB) proposed Tier 5 standards under development would further tighten emissions limits for off-road engines, but these apply to *future* engine certifications and would not take effect until 2029 or later. CARB's Clean Off-Road Equipment Voucher Incentive Program provides funding for zero-emission off-road equipment that is "commercial-ready" but has not yet achieved broad market penetration. Although some zero-emission equipment types exist, statewide agencies acknowledge that the technology is still emerging and not universally available for typical heavy construction applications. For reference, a 2023 study commissioned by the San Francisco Planning Department (Off-Road Construction Equipment Vehicle Inventory) found that 11 percent of the offroad fleet inventory for the San Francisco Bay Area was electric. Additionally, CARB's regulatory guidance shows ongoing uncertainty in the heavy-duty equipment market, with rules still in formation and multiple lawsuits challenging federal approvals of California emission regulations. Refer to **Response CCCR-53** in Chapter 3 of this document for additional information.

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CHAPTER 2
List of Persons Commenting

This Responses to Comments (RTC) document provides written responses to comments received on the Draft Environmental Impact Report (Draft EIR) during the public review period, including all written comments submitted by letter, email, or turned in in-person at the public meetings on the Draft EIR, and oral comments received during the public meetings. This chapter lists all persons who submitted comments on the Draft EIR. Persons who submitted written comments are grouped according to whether they represent a public agency, an organization or business, or commented as an individual, as shown in **Table RTC 2-1**. The complete set of written and oral comments received on the Draft EIR is contained in **Appendix RTC-1**.

The commenter codes were assigned to facilitate the preparation of responses, and there is a unique commenter code for each comment letter, email, comment form, and hand-written letter based on the name of the agency, organization or business, or individual submitting the comment. Comments submitted by mail, email, or in person at the public hearing are all coded and numbered the same way. The commenter code is an acronym or name for the agency or organization, or the individual's last name. If a commenter submitted more than one set of comments, the acronym or name is followed by a number indicating the comment set (e.g., SFPUC1, SFPUC2). Within each category (public agencies, organizations and businesses, and individuals), commenters are listed in alphabetical order by code.

Each individual comment from each commenter is bracketed and numbered sequentially following the commenter code. The bracketed comments and corresponding comment numbers are shown in the margins of the comments in Appendix RTC-1. There is a unique comment number for each distinct substantive comment.

TABLE RTC 2-1
PERSONS COMMENTING ON THE DRAFT EIR

Commenter Code	Name and Title of Commenter	Agency/Organization/Business	Date Received
Federal, State, Regional, and Local Agencies, Boards, and Commissions			
USEPA	Connell Dunning, Manager, Policy and Operations Branch	U.S. Environmental Protection Agency	January 21, 2026
BCDC	Schuyler Olsson, Senior Environmental Scientist	San Francisco Bay Conservation and Development Commission	January 23, 2026
Caltrans	Yunsheng Luo, Branch Chief, Local Development Review Office of Regional and Community Planning	California Department of Transportation	January 23, 2026
CSLC	Nicole Dobroski, Chief, Division of Environmental Science, Planning and Management	California State Lands Commission	January 23, 2026
Midpen	Brian Malone, Assistant General Manager	Midpeninsula Regional Open Space District	January 23, 2026
Palo Alto	Jonathan Lait, Director, Planning & Development Services	City of Palo Alto	January 23, 2026
Samtrans	Bo Baney, Manager, Environmental & Sustainability Planning	San Mateo County Transit District	January 22, 2026
SFPUC1	Elton Wu, Environmental Compliance and Land Planner	San Francisco Public Utilities Commission	December 18, 2025
SFPUC2	Steven R. Ritchie, Assistant General Manager, Water	San Francisco Public Utilities Commission	January 23, 2026
Organizations and Businesses			
ARO	Jonathan Cordero, Chair, Ramaytush Tribe	Association of Ramaytush Ohlone	January 21, 2026
BHE	Marlene Santoyo, Program Co-Organizer	Belle Haven Empowered	January 23, 2026
CCCR	Gail Raabe, CCCR; Eileen McLaughlin, CCCR; Jennifer Change Hetterly, Sierra Club; Alexandra Mendoza, Green Foothills; Chris MacIntosh, San Mateo Bird Alliance	Citizens Committee to Complete the Refuge, Sierra Club – Loma Prieta Chapter, San Mateo Bird Alliance, Green Foothills	January 23, 2026
Nuestra Casa	Jennifer Adams, Nuestra Casa; Juanita Croft, Belle Haven Community Development Fund; Violet Wulf-Saena and Cade Cannedy, Climate Resilient Communities; Sarah Atkinson, SPUR	Nuestra Casa, Belle Haven Community Development Fund, Climate Resilient Communities, SPUR	January 23, 2026
BRH	J. William Uhrig	Bay Road Holdings, LLC	January 23, 2026
Cargill	Don Brown, Senior Director, Cargill Salt, Land Management	Cargill, Incorporated	January 23, 2026
RSBD	Jeff Poetsch, President and Executive Director	Ravenswood Shores Business District	January 23, 2026
Sycamore	Miles Imwalle, Coblentz Patch Duffy & Bass LLP	Sycamore Real Estate Investment LLC	January 23, 2026
Individuals			
Anonymous1	Anonymous		December 15, 2025
Anonymous2	Anonymous		December 15, 2025
Anonymous3	Anonymous		December 17, 2025

Commenter Code	Name and Title of Commenter	Agency/Organization/Business	Date Received
Anonymous4	Anonymous		December 17, 2025
Alberto	Alberto		December 17, 2025
Chripres	Guillermina Moreno Chipres		December 17, 2025
Combs	Steven Combs		December 15, 2025
Escobedo	Sonia Esobedo		December 15, 2025
Garcia	Alberto Tinajero Garcia		January 15, 2026
Gomez-Ochoa	Diana Gomez-Ochoa		December 15, 2025
Gonzalez	Maria Gonzalez		December 15, 2025
Goodwin	Danita Goodwin		December 17, 2025
Harville	John Harville		December 17, 2025
Hearn	Jerry Hearn		December 16, 2025
Hernandez	Eduardo L. Hernandez		January 15, 2026
Inez	Inez		January 15, 2026
Jenkins	Sharon Jenkins		December 17, 2025
Jimenez	Evelia Jimenez		December 15, 2025
Jones	Robert Jones		December 15, 2025
Julia	Julia		December 15, 2025
Kao	Christopher Kao		December 15, 2025
Lopez	Joey Lopez		January 7, 2026
Poston	Gwendolyn Poston		January 23, 2026
Quiroz1	Guillermina Quiroz		December 15, 2025
Quiroz2	Guillermina Quiroz		December 17, 2025
Robertson	Lavonne Robertson		December 17, 2025
Robledo1	Vicky Robledo		December 17, 2025
Robeldo2	Vicky Robledo		January 21, 2026
Rohr.J	James Rohr		December 17, 2025
Rohr.M	Meredith Rohr		January 23, 2026
Samerson	Miranda Samerson		December 15, 2025
Sandra	Sandra		December 17, 2025
Santillan.J	Jessica Santillan		December 15, 2025

Commenter Code	Name and Title of Commenter	Agency/Organization/Business	Date Received
Santillan.V	Victor Santillan		December 15, 2025
Sean	Sean		January 15, 2026
Smith	Alicia Smith		December 15, 2025
Solis	Claudia Solis		December 17, 2025
Sot	Jesus Sot		December 17, 2025
Soto	Lucia Soto		December 17, 2025
Sykes	John Sykes		December 17, 2025
Trujillo	Rosario Trujilo		December 17, 2025
Watkins1	Inez Watkins		December 15, 2025
Watkins2	Inez Watkins		January 23, 2026
Watkins	Shontelle Watkins		January 15, 2026
Public Meetings			
Meeting1	Oral comments received from multiple individuals during Public Meeting #1 in East Palo Alto		December 15, 2025
Meeting2	Oral comments received from multiple individuals during Public Meeting #2 in Menlo Park		December 17, 2025
Meeting3	Oral comment received from Jerry Hearn during Public Meeting #3 (SFCJPA Board Meeting)		December 18, 2025

CHAPTER 3
Response to Comments Received on the Draft EIR

3.1 Global Responses

3.1.1 Global Response on Level of Detail: Project and Program Analysis

Please note that the San Francisquito Creek Joint Powers Authority (SFCJPA) is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document).

This global response addresses overarching issues related to the level of detail in Draft EIR evaluations and supplemental environmental review under the California Environmental Quality Act (CEQA) raised in the following comments: CSLC-3, SFPUC2-3, CCCR-3, CCCR-4, CCCR-11. Refer also to Sections 3.2 and 3.3 for additional response specific to each comment.

Comments

1. Program vs. Project EIR Analysis: Project components within Commission jurisdiction are evaluated at a program level (10 percent design level) and would likely require supplemental CEQA analysis following further development/design of the Project components. Consequently, many affected resources were not evaluated at a Project level. Please be advised that the Commission's use of the Final EIR for issuance of a lease for Project components within Commission jurisdiction must include a Project-level analysis of environmental impacts in accordance with CEQA." **[CSLC-3]**

"The SFPUC understands that the Draft EIR analyzes the project on SFPUC parcels ("Dumbarton Approach Reach") on a programmatic level due to the conceptual nature of the design for this area or reach. Further project-level environmental review may be required under CEQA once the project details for the Dumbarton Approach Reach are fully known. Depending on whether the project details could result in new significant impacts, the project-level environmental review would result in either an EIR addendum or a subsequent or supplemental EIR." **[SFPUC2-3]**

"1. The DEIR Does Not Function as an Adequate Programmatic EIR and Cannot Reliably Support Tiering

A central deficiency of the DEIR is that it does not provide the analytical foundation or enforceable standards necessary to function as a programmatic EIR for the many reaches evaluated only at a conceptual level." **[CCCR-3]**

"For program-level reaches, the DEIR does not provide sufficient location-specific information for the public to determine whether the DEIR captures the reasonably foreseeable "upper range" of impacts that could occur from future construction and operations and maintenance activities, nor whether proposed measures are likely to reduce impacts to a less-than-significant level. This severely constrains the ability of the public and responsible agencies to evaluate whether deferral is appropriate, whether mitigation is adequate, and whether supplemental review will be required. Based on the DEIR's current level of disclosure, it is evident that supplemental EIRs will be necessary for program-level reaches, and that full agency and public review must be an essential component of those additional CEQA processes." **[CCCR-4]**

"7. Construction Methods and Secondary/Indirect Impact Pathways Are Under-Disclosed

A major weakness of the DEIR is the failure to provide sufficient detail regarding construction methods, staging, soil handling, dewatering, equipment, spoil management, and related best management practices in a manner that allows the public to evaluate impacts beyond the immediate footprint or understand if the proposed impact footprint is reasonable (particularly for the temporary impact footprints). This deficiency affects multiple resource areas, including air quality, hazards, hydrology and water quality, and biological resources. It also undermines the credibility of several DEIR conclusions that assume effective implementation of mitigation measures without disclosing the operational details needed to determine whether those measures are feasible and enforceable.

Where the DEIR relies on future plans (e.g., health and safety plans, soil and groundwater management plans, and other programmatic documents) to support findings, it must provide sufficient standards and content requirements now so that those plans can be evaluated for effectiveness and enforceability." **[CCCR-11]**

Response

CEQA Requirements

CEQA requirements related to the scope of a project to be evaluated in an EIR, timing of implementing CEQA, and the level of detail to be included in an EIR are summarized below:

- ***Scope of the Project***. CEQA requires an EIR to include and thereafter analyze the impacts of an accurate, stable, and finite project description. CEQA Guidelines section 15378(a) defines "project" as the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.

- ***Timing of CEQA Implementation***. CEQA guidance specifies that EIRs be prepared as early as feasible in the planning process to enable environmental considerations to influence design yet late enough to provide meaningful information for the evaluation of environmental impacts.[1]

- ***Level of Detail in an EIR***. CEQA affords substantial discretion in determining the level of analysis appropriate for a particular project or action, as CEQA allows for the preparation of multiple types of environmental review. The level of detail in an EIR is driven by the nature of the proposed action and scope of the anticipated approval, regardless of the type of EIR. Pursuant to CEQA Guidelines section 15151, an EIR should "be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences." The level of detail in an EIR should correspond to the degree of specificity involved in the underlying activity described in the EIR and be limited to effects that are reasonably foreseeable consequences of a project. A change that is speculative is not considered reasonably foreseeable. The extent to which the impact analysis for later stages of a project may be deferred depends on the availability of additional information about later stages of the project.

The SAFER Bay Project EIR complies with these CEQA requirements. Consistent with CEQA Guidelines section 15378(a), Draft EIR Chapter 2, *Project Description*, describes the whole of the action as currently understood, including the foreseeable work that the SFCJPA's experts anticipate could be needed to implement the Project. The Draft EIR evaluates impacts of the full Project buildout of the SAFER Bay Project and analyzes all impacts to the extent that it is reasonable to do so without resorting to speculation. The SFCJPA's decision to prepare an EIR that evaluates components at both project and program levels of detail reflects the information currently available on the Project and CEQA guidance regarding (a) the timing of preparing an EIR (early in project development) and (b) determining the appropriate level of analysis to support the approval action.

Additional information is presented below regarding CEQA requirements for programmatic evaluation and tiering.

SFCJPA's Approval Action for the SAFER Bay Project

As stated in Draft EIR Chapter 2, *Project Description*, the SFCJPA is a regional government agency created and funded by the cities of East Palo Alto, Menlo Park, and Palo Alto; San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline); and Santa Clara Valley Water District. The SFCJPA works with its member agencies to plan, design, and implement multi-benefit projects across these jurisdictional boundaries to reduce flood risks, enhance and restore ecosystems, and improve public trails within member cities. The SFCJPA was established for the following purposes:[2]

- Develop and maintain projects to reduce the risk of flooding in and around San Francisquito Creek.
- Develop and maintain projects to reduce the risk of coastal flooding from along the San Francisco Bay shoreline.

[1] CEQA Guidelines section 15004(b).

[2] Second Amended and Restated Joint Powers Agreement for the San Francisquito Creek Joint Powers Authority. Amended and Restated as of December 18, 2023. Available online at https://www.sfcjpa.org/files/c29e7f18d/Second%2BAmended%2Band%2BRestated%2BAgreement%2BFully%2BExecuted%2B%28All%2BSignatures%2BDEC%2B2023%29.pdf.

- Maintain, restore, enhance the environment, and create recreational opportunities, where possible, in implementing the other purposes stated herein.
- Provide regional information related to flood preparedness and emergency response agencies and others to enhance their ability to communicate about and respond to flood risks
- Secure and administer funding for the benefit of the SFCJPA's operations, capital projects, and related work.

The SFCJPA was created to collectively contribute resources and implement policies and projects of mutual interest relating to the primary natural features that unite them. The member agencies created the SFCJPA in acknowledgment of the fact that implementation of such mutual interest projects requires coordination and cannot proceed independently. Although additional approvals would be required to implement the Project, none of the member agencies can proceed with the Project or portions of the Project (including completing design) without approval of the current Project concept by the SFCJPA. The SFCJPA's approval of the Project would:

- Enable the SFCJPA to, in coordination with its member agencies, pursue permitting for the Project and advance design.
- Enable its member agencies to complete additional design and related investigations.
- Facilitate actions by responsible and trustee agencies regarding their respective authorities for permits and funding.

The SFCJPA Board of Directors (Board) consists of elected officials from each of its members. The SFCJPA Board will use the information in the Final EIR in its deliberations on whether to certify the EIR and approve, modify, or deny the Project or aspects of the Project. If the SFCJPA Board certifies the Final EIR and approves the Project, it will adopt CEQA Findings that identify the Project-related impacts, mitigation measures or alternatives to reduce significant impacts, and the mitigation monitoring and reporting program (MMRP). The MMRP describes the mitigation measures included in the Project as identified in the Final EIR, entities responsible for implementing the measures, timing of implementation, and associated reporting requirements.

Future discretionary approvals by the SFCJPA, cities of East Palo Alto and Menlo Park, and OneShoreline (collectively referred to hereafter as the SAFER Bay Project Team) will also be required. The SAFER Bay Project Team will be required to comply with CEQA at the time of their respective approvals related to Project components within their jurisdiction. In addition, responsible agencies are expected to use this EIR, along with supplemental CEQA documentation relevant to their discretionary actions, in making findings for those effects within the scope of the agency's jurisdiction.

Adequacy of Program-Level Evaluations in the EIR and Need for Additional CEQA

One commenter questions whether the Draft EIR is adequate as a programmatic EIR "for the many reaches evaluated at only a conceptual level" and asserts that the Draft EIR does not provide sufficient location-specific information to determine whether it captures the reasonably foreseeable "upper range" of impacts or whether mitigation measures will be effective (CCCR-3, CCCR-4).

CEQA Requirements for Programmatic Evaluation and Tiering

As discussed in CEQA Guidelines section 15168, a programmatic analysis is appropriate for a series of actions that are (1) related geographically, (2) logical parts in a chain of contemplated actions, (3) connected as part of a continuing program, or (4) carried out under the same authorizing statute or regulatory authority, with similar environmental impacts that can be mitigated in similar ways. In this case, the Project includes a series of actions that are related geographically (designed to protect SFCJPA member agency jurisdictions from coastal flooding along the San Francisco Bay shoreline). Section 15168 does not identify standards for EIR adequacy beyond those described for all EIRs (summarized above).

CEQA Guidelines section 15152 discusses tiering, which refers to using the analysis of general matters contained in a broader EIR which later CEQA documents on narrower projects, incorporating by reference the general discussions from the broader EIR and concentrating the later CEQA document on the issues specific to the later action. CEQA encourages agencies to tier environmental analysis to eliminate repetitive discussions of the same issues and focus the later review(s) on the issues ripe for decision at that time. Section 15152 specifically states that "[t]iering does not excuse the lead agency from adequately analyzing reasonably foreseeable significant environmental effects of the project and does not justify deferring such analysis to a later tier EIR or negative declaration. However, the level of detail contained in a first tier EIR need not be greater than that of the program, plan, policy, or ordinance being analyzed."

The Draft EIR acknowledges the level of detail available for different Project components as well as how that level of detail is reflected in the impact evaluations throughout the document:

- The ***Summary*** chapter indicates that the EIR contains both project-level and program-level evaluations based on the level of design and construction information available and states that the programmatic evaluations have used conservative assumptions to facilitate future project-level evaluations. (page S-5).
- The ***Introduction*** (Chapter 1) and *Project Description* (Chapter 2) and associated appendices indicate why the SFCJPA has prepared a "Program-Project EIR" and describe the level of design detail available for proposed shoreline protection, recreation, and habitat restoration features as well as other changes to infrastructure available for the Project. Draft EIR Section 1.2.5 describes the process whereby the SFCJPA or its member agencies would comply with CEQA for future changes in the Project (described in greater detail below).
- ***Section 3.1.4, Approach to Project-Level and Program-Level Evaluations*** is part of the introduction to Draft EIR Chapter 3 and provides an overview of the approach to evaluating Project components at program- and project-levels of detail.
- ***Each topical section*** in Chapter 3 (e.g., Aesthetic Resources, Air Quality, Biological Resources) contains a section defining the significance criteria for evaluating environmental impacts and a *Methodology* section that explains how the significance criteria are applied in evaluating impacts. Each *Methodology* section contains a description of how program-level and project-level analyses are addressed for that topic.

Level of Detail Available for the SAFER Bay Project and Location-Specific Information for Program-Level Reaches

Draft EIR Chapter 2, *Project Description*, and associated appendices present the best available location-specific information for the SAFER Bay Project based on what is currently understood regarding full Project buildout and operations. The level of detail available for the Project is driven by the degree to which Project design has occurred, which in turn is primarily related to funding and property access. As indicated on Draft EIR page 2-4, "Those Project components for which 30-percent design is available are generally evaluated at a project level of detail; those Project components for which conceptual (10-percent) design information is available are generally evaluated at a program level of detail." In addition to design information, Project engineers developed detailed construction information for each reach.

The EIR includes detailed location-specific information for all reaches, whether evaluated at project level or program level of detail. Examples include:

- Section 2.4.2 (beginning on Draft EIR pages 2-14 – 2-56) presents descriptions of existing conditions and proposed reach conditions with respect to proposed shoreline protection, habitat restoration, and recreation. In addition to narrative descriptions, the section has 25 figures. Figures 2-7, 2-10, 2-13, 2-17, 2-20, 2-22, 2-24, and 2-25 present plan-view aerial-photo-based maps of proposed conditions within each reach based on the 10-percent and 30-percent design drawings developed for the Project. The figures depict levee footprints, different design sections, and potential pedestrian and operations and maintenance access points for all segments of all reaches. Figures 2-8, 2-11, 2-14, and 2-15 present shoreline protection design sections proposed for all segments of all reaches depicting (among other things) levee height and width, crest width, floodwall and trail placement, and slopes. Together these figures indicate the proposed levee design dimensions for every segment of every reach.

- Appendix CONST presents the construction limits estimated by design engineers for shoreline protection features for all reaches on aerial-photo base maps. Figures 2-2, 2-3, 2-4a and 2-4b present proposed tidal marsh restoration design and western snowy plover habitat enhancement on aerial-photo base maps; Appendix BIO3, the Project's *Habitat Restoration Basis of Design Report*, presents additional detail.

- Sections throughout Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures,* present location-specific information relevant to each topic (e.g., Section 3.2, Aesthetic Resources). For example, Section 3.4, Biological Resources, includes 42 figures depicting existing and proposed conditions in the biological resources study area based on detailed, Project-specific aquatic resources delineation and habitat assessments prepared by qualified biological resources specialists.

The EIR also indicates where design information is lacking. As described throughout the EIR (e.g., Chapter 2, Section 3.1.4, Appendix INFRA), the Project will require changes to existing infrastructure. In some cases, design was sufficiently advanced to evaluate infrastructure changes at a project level of detail (e.g., relocating a sewer main in the South of Bay Road Reach, as shown on Figure 2-7), but for the most part, no information is currently available on where such infrastructure would be relocated, which will be determined during later design phases (refer to the discussion of Supplemental Environmental Review, below).

The Draft EIR analyzes the environmental impacts of Project implementation based on that description to the extent that it is reasonable to do so without resorting to speculation. The Draft EIR identifies construction disturbance, in-water work, excavation in contaminated areas, dewatering, and alteration of

drainage patterns as potential impacts of the Project, and incorporates mitigation measures developed to address the potential impacts. Mitigation measures were developed in accordance with CEQA requirements. Each impact discussion in the Draft EIR concludes with a statement specifying whether the proposed measures would reduce impacts to a less-than-significant level. As shown in Draft EIR Table S-2, the Draft EIR identifies 28 potentially significant environmental impacts of the Project, and includes 44 mitigation measures to address potentially significant environmental impacts.

Supplemental Environmental Review

As indicated above, the Draft EIR indicates that aspects of the Project have not been defined in sufficient detail at this time to permit detailed evaluation, that refinements of Project components are to be expected, and that CEQA includes procedures for projects change after EIR certification and lead agency approval.

When components of the SAFER Bay Project change compared to the Project as currently described in the EIR (e.g., as geotechnical evaluations are completed and design and consultation with regulators progress), the SAFER Bay Project Team will conduct evaluations pursuant to CEQA Guidelines sections 15162 through 15164 to determine if the activity remains within the scope of this EIR or if substantial changes are proposed in the Project that would require major revisions to this EIR due to the involvement of new significant environmental impacts or a substantial increase in the severity of a significant impact identified in this EIR. Consistent with CEQA requirements, future environmental review will depend on the scope and nature of the change to the Project and its potential to cause a significant impact on the physical environment not previously identified or to increase the severity of a previously identified significant impact on the physical environment.[3]

CEQA Guidelines section 15168(c) details the requirements specific to the use of a program EIR with later activities in the program, including that an agency shall incorporate feasible mitigation measures developed in the program EIR into later activities. As noted above, with the SFCJPA's adoption of the MMRP for the Project, the mitigation measures identified in the MMRP to mitigate significant impacts become part of the Project moving forward.

Options for supplemental CEQA include subsequent EIRs and negative declarations, supplements to an EIR, and addendums to an EIR. As a general rule, CEQA precludes the preparation of a subsequent EIR for a project unless there are substantial changes to the project or to the circumstances under which the project is undertaken that result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects, or if new information that could not have been known at the time of EIR preparation shows that a project would have new or more severe significant effects but the project proponent declines to adopt mitigation measures or alternatives that would reduce the effects.[4]

Regarding Comments CSLC-3 and SFPUC2-3, as design advances, the SAFER Bay Project Team will coordinate with staff from the California State Lands Commission and San Francisco Public Utilities Commission to ensure that CEQA documentation for the SAFER Bay Project supports future approval actions.

[3] Refer to CEQA Guidelines sections 15162, 15163, and 15164 for the specific conditions leading to preparation of a subsequent EIR, supplement to an EIR, or addendum to an EIR.

[4] California Public Resources Code section 21166, CEQA Guidelines section 15162.

3.1.2 Global Response on Future Project Development

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

As indicated in Section 3.1.1, Global Response on Level of Detail: Project and Program Analysis, the information presented in the Draft EIR is based on the information currently available for the Project, that aspects of the Project have not been defined in sufficient detail at this time to permit detailed evaluation, and that changes to Project components are to be expected.

Numerous comments received on the Draft EIR address aspects of the Project that have not yet been defined in detail; in most cases, the comments present suggestions for how these interested parties would like to see the Project implemented. The comments fall into four categories: those pertaining to trails, those pertaining to vegetation on levees, those pertaining to shoreline adaptation planning, and those pertaining to future coordination. Summaries of the salient points raised in comments are presented below, along with responses. Please refer to Sections 3.2 through 3.4 of this document for complete responses to comments referenced below.

Comments Pertaining to Trails

Trail Closures and Detour Routing During Construction

Comment Summary

Numerous comments raised questions about trail closures and requested that the EIR include information on detour routing. For example, the San Francisco Bay Conservation and Development Commission (BCDC) requests that the EIR describe how the Project would minimize necessary trail closures and that the SFCJPA Project team work with local jurisdictions, the Metropolitan Transportation Commission, and BCDC on appropriate detour routes; and indicated that all BCDC-required public access should have alternatives and detours during construction closures. The Midpeninsula Regional Open Space District (Midpen) requests the development of a plan for continued public access prior to implementation of construction. Midpen also requests that the EIR address temporary recreational impacts associated with the public's inability to access the Bay Trail, the boardwalk and pedestrian bridge, where trails will be rerouted and reconstructed during construction, and requests that the EIR include an interim public access plan. **[BCDC-20, Midpen-3, Midpen-18, CCCR-98]**

Response

As described below, Draft EIR Mitigation Measure TRA-1: Traffic Control Plan requires the development of detour plans for trails. As part of the Project approval process, the SFCJPA would adopt a Mitigation Monitoring and Reporting Program that includes Mitigation Measure TRA-1; consequently, the requirements set forth in that measure then become part of the SAFER Bay Project for purposes of future planning and Project development.

As indicated in Chapter 2, *Project Description*, (page 2-63) no detour routing has been proposed at this time. Recreational facility closures would be noticed in advance and may be added to 511.org and the

Silicon Valley Bicycle Coalition. The Draft EIR includes the following general information regarding trail detours: "Cautionary detour signs and/or possible trail closure mechanisms (e.g., red and white-striped gate arms, warning lights) would generally be implemented when detours are in place but would be subject to the protocols of the local agency that operates each trail segment." It is not unusual for projects at this stage in development to lack transportation detour plans, which require a higher level of detail than what is currently available for the SAFER Bay Project (e.g., more precise implementation schedules for phases and reach segments, identification of all staging areas and vehicle routes, evaluation of detour route options, trail closure mechanisms, and signage). Consequently, most EIRs require the development of traffic control plans—including for pedestrian and bicycle facilities—as mitigation, and the SAFER Bay EIR follows this approach.

Impact TRA-1 (beginning on page 3.15-7) evaluates the potential for the Project to conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Mitigation Measure TRA-1 (Draft EIR page 3.16-2) requires the SAFER Bay Project Team to develop traffic control plans that include (among other things) identification of full and partial closures of trails and bicycle and pedestrian detour plans where applicable. As Project development proceeds, the local agency (the cities of East Palo Alto and Menlo Park) that operates each portion of a trail would identify detour plans. Any detour plans that are developed by the SAFER Bay Project Team would be required to meet requirements set forth in Mitigation Measure TRA-1. The traffic control plans must be developed in coordination with BCDC, the City of Redwood City (for reaches within that city), Midpen (for the North of Bay Road Reach), the California Department of Transportation, emergency service providers, and any other contractors constructing Project components (to ensure coordination across construction sites, in the event that there are multiple sites under construction concurrently).

Inclusion of a Trail in the Marsh Road Reach

Comment Summary

BCDC stated the following in its comments on the Draft EIR: "BCDC's policies require that projects provide maximum feasible public access. We strongly encourage the inclusion of a recreational trail along the top of the levee, which would implement an important Bay Trail gap section. Please note that private property does not disqualify the site from required public access, therefore public access in this area needs to be studied further." Another commenter expressed interest in seeing the westernmost reach include a trail, aligning with Redwood City Bay Trail improvements. **[BCDC-18, Kao-2]**

Response

The SAFER Bay Project does not currently include a trail segment on the levee within the Marsh Road Reach (see Draft EIR figure 2-5), but the proposed levee design could accommodate a trail. The Metropolitan Transportation Commission has identified a proposed trail between Bedwell Bayfront Park (in Menlo Park) and Seaport Boulevard in Redwood City, a segment of which is generally aligned with the Marsh Road Reach levee alignment (Draft EIR page 3.1-8).

The SAFER Bay Project Team understands that this is a proposed Bay Trail connection but because plans for this area are not settled, this EIR is deferring to OneShoreline/Redwood City to evaluate a trail in this area in the future. Beginning in fall 2026, OneShoreline will lead a subregional, multi-jurisdictional shoreline adaptation planning effort encompassing five cities—Belmont, San Carlos, Redwood City,

Menlo Park, and East Palo Alto. The plan will be developed pursuant to Senate Bill (SB) 272 and in compliance with the Regional Shoreline Adaptation Plan (RSAP). A key component of the effort will be coordination with Cargill to evaluate potential adaptation strategies and alignments, with resulting Bay Trail approaches dependent on final alignments, easements, and/or acquisitions.

Comments Pertaining to Vegetation on Levees

Comment Summary

Several comments made suggestions regarding the type of vegetation to be used along the levee slopes and adjacent to the trail, including requests that the SAFER Bay Project Team consider dense, native plants along the trail using native plant species that can outcompete the invasive species and require less maintenance comments; and that the bayward side of the levee should provide vegetative screening (knee-high or taller brushy or bristly native upland scrub vegetation) …to "discourage people or dogs from establishing social trails to transition zone wildlife habitats." [**Midpen-2, Palo Alto-6, CCCR-17]**.

Response

The SAFER Bay Project Team has strived to incorporate a self-sustaining mosaic of dense native vegetation along trail slopes. Please see Appendix BIO3, Section 5 for details on the levee revegetation approach, which includes areas adjacent to trails. The levee revegetation approach presented in Appendix BIO3 is intended to establish dense native cover to help outcompete non-native weeds and incorporates mowing-tolerant species to facilitate weed control. The revegetation plan for levee slopes largely avoids larger, shrub and tree species due to United States Army Corps of Engineer (USACE) requirements for vegetation on flood control levees. However, select taller shrub species are incorporated in salt marsh-upland transition zones adjacent to tidal marshes to provide high-tide refugia for marsh wildlife (see Appendix BIO3 Sections 3.9 and 7). The revegetation approach and vegetation maintenance plan will be further developed in the Project's future Habitat Restoration and Monitoring Plan, to be prepared for Bay Restoration Regulatory Integration Team (BRRIT) approval during the regulatory permitting process.

Comments Pertaining to Shoreline Adaptation Planning

Comment Summary

Several comments submitted on the Draft EIR address regional shoreline adaptation planning. One comment asks how the SAFER Bay Project will integrate with the BCDC's RSAP priorities and process. Another comment indicates that future CEQA documentation for the Marsh Road Reach should include information on SAFER Bay Project/Menlo Park coordination with Redwood City on the proposed levee plan, "as required by the [Regional Shoreline Adaptation Plan] RSAP." Another comment indicates that a subregional shoreline adaptation plan should precede the SAFER Bay Project "due to its large size and impacts…." **[Nuestra Casa-12, CCCR-42, CCCR-123]**

Response

The enactment of SB 272 in 2023 required BCDC to create guidelines for cities and counties to use in the development of Subregional Shoreline Adaptation Plans. Accordingly, BCDC developed, and in 2024 adopted, the *Regional Shoreline Adaptation Plan: One Bay Vision, Strategic Regional Priorities, and Subregional Shoreline Adaptation Plan Guidelines* (RSAP). Among other things, the RSAP presents big-picture goals for successful shoreline adaptation, key issues that affect the entire San Francisco Bay Area region that require coordinated local adaptation, and specific guidance for the contents and standards for cities and counties to follow in developing a Subregional Shoreline Adaptation Plans (SSAP).

The guidelines for local governments are essentially written to meet cities and counties where they are with respect to planning, with the goal of providing multiple paths to compliance based on work that has been completed. As stated on page vii of the RSAP guidelines,[5] development of an SSAP is intended to build on existing plans and is not intended to require all new analysis, decision-making, or project development; and the guidelines do not stipulate that an SSAP must be completed preceding the planning and implementation of shoreline adaptation projects. In its comments on the Draft EIR (presented in Section 3.2.2 of this document), BCDC did not express concerns that the Project may be bypassing elements of the SSAP. BCDC's comment letter "recognize[s] the importance and scope of this project," and the staff member who signed BCDC's letter has participated in review of the Project for more than 3 years as a member of the BRRIT.

The San Mateo County Flood and Sea Level Rise Resiliency District, known as OneShoreline, works throughout the county to address the climate change-related impacts of sea level rise, flooding, and coastal erosion. OneShoreline is a member of the SFCJPA. Beginning in fall of 2026, OneShoreline will lead a subregional, multi-jurisdictional shoreline adaptation planning effort encompassing five cities—Belmont, San Carlos, Redwood City, Menlo Park, and East Palo Alto. The plan will be developed pursuant to SB 272 and in compliance with the RSAP, with funding provided through a California Ocean Protection Council grant. The SAFER Bay Project Team will continue to coordinate with OneShoreline on the Marsh Road Reach and other reaches.

Comments Pertaining to Future Coordination

Lastly, numerous comments from agencies (e.g., BCDC, Midpen, the City of Palo Alto) requested that the SAFER Bay Project Team continue to coordinate with them as Project design advances. Others, including organizations, businesses, and individuals, requested that the SAFER Bay Project Team keep the public informed of Project developments.

The SAFER Bay Project Team is committed to ongoing coordination with Project stakeholders and sharing information about Project development with the community in the future. As Project design advances, meetings with key stakeholders will occur at increased frequency as designs and supplemental environmental review progress.

3.2 Response to Agency Comments

3.2.1 U.S. Environmental Protection Agency (USEPA)

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

[5] BCDC (San Francisco Bay Conservation and Development Commission), 2024. *Regional Shoreline Adaptation Plan: One Bay Vision, Strategic Regional Priorities, and Subregional Shoreline Adaptation Plan Guidelines*.

Comment USEPA-1

"The EPA has reviewed the SAFER programmatic-type Draft Environmental Impact Report prepared pursuant to the California Environmental Quality Act. The EPA understands that the Army Corps of Engineers expects to address project-specific impacts on individual permits under the National Environmental Policy Act. The EPA's comments below focus on the potential effects of construction noise to human health and childhood learning. The EPA may provide comments regarding other resource areas (i.e., aquatic or water-related resources) when future NEPA analyses are initiated."

Response USEPA-1

This comment, which summarizes the contents of this letter, has been acknowledged.

Comment USEPA-2

"Noise Impacts

SAFER's programmatic-type Draft EIR identifies noise as a significant and unavoidable impact to sensitive receptors (residences, hospitals, and schools), even with mitigation, for the South of Bay Road, Bedwell Bayfront Park, Tech Campus, and Marsh Road reaches at distances varying between 45 – 2,700 feet from project activities.(1) Exposure to repetitive, disruptive noise levels can significantly affect children's cognitive development and information retention. As noted in the Draft EIR, noise has been found to impact child learning – especially young children – including interference with concentration, comprehension, and communication (p. 3.13-3). To be able to hear and understand spoken messages in classrooms, the American National Standards Institute standard S12.60-2002 has established acoustical performance criteria for classrooms specifying that one-hour average background noise levels not exceed 35 dBA in core learning spaces.(2)

Assessment of Potential Noise Impacts

The Draft EIR provides estimates of noise levels from construction and sheet wall pile driving equipment on properties located 45 – 840 feet from the project as measured against the Federal Transportation Agency's 90 dBA residential daytime criteria (Tables 3.13-8 through 3.13-14). The Draft EIR does not estimate noise levels at any of the nine schools the EPA has identified within the 2,700-foot area of potential effects.(3) All estimates were well above the recommended 35 dBA level.

Recommendation: To determine where and at what level temporary barriers or other minimization measures would be needed to meet the 35 dBA threshold, the EPA recommends that noise levels at classrooms closest to the heavy construction and pile driving activities be estimated and that specific attenuation measures be included in Noise Control Plans as warranted."

[Comment Footnotes:

(1) Public project presentation of December 18, 2025.
(2) See the American National Standards Institute's Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools. ANSI S12.60 (R2020), https://blog.ansi.org/ansi/ansi-asa-s12-60-part-1-2010-r2020-school-acoustics/
(3) Schools within the 2,700 foot distance of potential significant and unavoidable noise effects include the Aspire East Palo Alto School, Edison–Ronald McNair Intermediate School, East Palo Alto Academy, East Palo Alto High School, School of Wisdom and Knowledge, Narobi College, and the Eastside College Preparatory School in the South of Bay Road reach; the Costano Elementary School in the North of Bay Road reach; and the Belle Haven Elementary School and Beechwood School in the Bayfront Expressway reach.]

Response USEPA-2

The USEPA notes that the Draft EIR does not estimate construction noise levels at any of the nine schools it has identified as being located within 2,700 feet of the Project area. The USEPA also recommends the EIR be revised to include construction noise estimates at these schools, evaluate school noise estimates against a 35 A-weighted decibels (dBA) noise standard, and, if necessary, incorporate specific noise control measures to meet the 35 dBA standard. As described in more detail below, the Draft EIR already includes information that is commensurate with that provided by the USEPA and has adequately evaluated potential noise impacts on schools using appropriate thresholds; consequently, no revisions to the Draft EIR are needed.

The Draft EIR acknowledges that noise can interfere with activities such as learning (p. 3.13-3) and considers schools to be noise-sensitive receptors (p. 3.13-7). In addition, the Draft EIR specifically indicates that the East Palo Alto Charter School, one of the schools identified by the USEPA, is within 170 feet of construction occurring in the South of Bay Road Reach (Table 3.13-3 on p. 3.13-8). East Palo Charter School is the closest school to any Project construction activities and would be subjected to the loudest noise levels and the have the highest potential for interference with educational activities; the other eight schools identified by the USEPA are at least 1,400 feet from potential work areas.[6] At this distance, the outdoor noise environment at each school is much more likely to be dominated by local traffic, school activities, and other local land use activities than noise from construction equipment, including pile driving, which would attenuate to less than 60 dBA at 1,400 feet due to distance, shielding by intervening development, and other excess attenuation factors (see Draft EIR p. 3.13-4).

The Draft EIR (pp. 3.13-15 to 3.13-17) includes a detailed discussion on the methodology and thresholds used to evaluate construction noise levels at noise sensitive receptors. The USEPA correctly notes that the Draft EIR applies a static Federal Transit Administration (FTA) general assessment criterion (e.g., 90 dBA Leq for daytime residential uses); however, the Draft EIR also applies a variable +10 dBA increase above ambient noise criterion to the evaluation of construction noise levels. As shown in Draft EIR Table 3.13-1 (p. 3.13-7), daytime ambient noise levels at all six measurement locations were 59.3 dBA or less, meaning that the Draft EIR also evaluates potential construction noise impacts using a threshold of 69.3 dBA or less in most locations (i.e., more than 20 dBA lower than the FTA's general assessment criterion of 90 dBA Leq for residential land uses). The USEPA's comment implies that the 35 dBA 1-hour average background noise acoustical performance criterion listed in American National Standards Institute (ANSI) standard S.12.60-2002 should be used to evaluate potential temporary construction noise impacts at schools. The referenced ANSI standard establishes an interior performance criterion for unoccupied classrooms based on steady background sound levels that do not differ by more than 3 dBA. Construction noise is not typical background noise and is inherently variable. Additionally, the 35 dBA criterion is to be met by incorporating specific design factors for minimum outdoor-to-indoor transmission class ratings, sound transmission class ratings, mechanical room isolation, and reverberation time that are intended to reduce not only exterior-to-interior but also classroom-to-classroom noise transmission. Here, the schools are already designed and existing. The 35-dBA performance criterion is

[6] This distance is as measured from the center of the work area to the closest building on the school site. Of the other eight schools identified by the USEPA, one (East Palo Alto High School) could not be identified or may be the same as the East Palo Alto Academy also identified by USEPA, and one (Nairobi College) was identified as a former online college with no physical student learning space within 2,700 feet of the Project.

best applied during the design of a school based on typical background noise levels, and not as a standard to evaluate temporary construction noise levels at school properties.

The EIR evaluates exterior noise levels in the vicinity of the East Palo Alto Charter School, stating:

> Noise at the nearest receptor from sheet pile driving activities would be 95 dBA, which is above FTA's daytime criterion of 90 dBA L_{eq} for residential uses (Table 3.13-8). This predicted noise level would also represent an increase of more than 10 dBA over existing daytime ambient levels at this receptor. Sheet pile driving along this reach is predicted to occur for approximately 25 workdays for the 1,000-foot segment that extends from Cypress Street to Runnymede Street, which is adjacent to residential land uses and East Palo Alto Charter School. There would be temporary sheet pile installations for one 25-workday period and, several months later, permanent sheet piles would be installed over a similar duration. Therefore, while the duration of activity proximate to any given receptor would be temporary, given that the quantitative criterion would be exceeded and pile driving in proximity to receptors would occur for more than 2 work weeks, construction noise from pile driving would result in a potentially significant impact. (Impact NOI-1, p. 3.13-9)

As a point of clarification, Draft EIR Table 3.13-8 has been revised to include a specific estimate of exterior noise levels at the closest East Palo Alto Charter School building façade (please refer to Chapter 4, *Draft EIR Revisions*). This change does not modify the conclusions of the Draft EIR because this impact was already generally considered.

The USEPA compares the Draft EIR's exterior construction noise level predictions to a recommended 35 dBA interior performance standard and concludes that mitigation measures are necessary to meet the 35 dBA performance criterion; however, the comparison of exterior-to-interior noise levels is not correct, and as noted above, the 35 dBA performance criterion is not applicable, and it is not appropriate for the evaluation of construction noise impacts. Although there is insufficient information to determine the level of exterior-to-interior noise reduction provided by all the existing school buildings identified by the USEPA, a minimum exterior-to-interior noise reduction of 15 dBA is likely achieved by such buildings if they have typical framing and wall design. This reduction would likely achieve interior noise levels less than 45 dBA inside all classroom buildings except classrooms at the East Palo Alto Charter School. The Draft EIR includes Mitigation Measure NOI-1 to reduce potential construction noise in the vicinity of this school but concludes temporary construction noise in the vicinity of the school would remain significant and unavoidable despite mitigation.

For the reasons described above, the Draft EIR has adequately evaluated potential construction noise impacts at schools in the Project vicinity using appropriate metrics and standards.

Comment USEPA-3

> ***"Reducing Potential Noise Impacts***
>
> The Draft EIR states that significant and unavoidable noise impacts would affect receptors intermittently between 10 - 220 working days (p. 4-10). As the typical school year in California consists of 180 instructional days, the EPA is concerned that project activities could inhibit childhood learning for significant periods of time, including the length of an entire grade level.

Recommendations:

- The EPA recommends applying noise minimization Measures G–H in Section 7.11 of East Palo Alto's General Plan specifically related to impact pile driving to all SAFER projects and include them in Mitigation Measures NOI-1 and Noise Control Plans (p. 3.10-10).
- We recommend reconsideration of the determination that the use of alternative equipment capable of reducing noise levels below the applicable threshold, such as drills or impact tools, is considered infeasible. As noise attenuating equipment is known to exist and could be made available, consider requiring that all contractors commit to securing and using the quietest pile driving and construction equipment that exists (p. 4-11).
- The EPA recommends that all schools identified within the area of potential noise effects be notified of construction plans and potential noise impacts with sufficient time to plan and implement noise minimization and mitigation measures."

Response USEPA-3

The USEPA correctly identifies that the South of Bay Road Reach may take up to 220 days to construct; however, this is the total duration of activities for the entire, approximately 1-mile (5,270 feet) length of the reach. This equates to approximately 55 days of demolition, grading, etc. for each 0.25 mile of the Project. Additionally, as described in Draft EIR Impact NOI-1, pile driving near the East Palo Alto Charter School is anticipated to occur for 25 days, cease for several months, and then occur for another 25 days. Thus, while the total duration for the South of Bay Road Reach would be 220 days, a given receptor would only be affected as construction approaches, occurs adjacent to, and then moves away from the receptor. This period would be no more than 110 days, including Saturdays, even if the receptor were affected by construction activities as far as a 0.25 mile away (1,320 feet). Thus, construction activities would not have the potential to inhibit learning for an entire school year or grade level, and additional measures to reduce construction noise would not be necessary. Nonetheless, for information purposes, the following responses are provided to the USEPA-specific recommendations for noise control measures:

- As shown in Draft EIR Table 3.13-4 (p. 3.13-10), East Palo Alto General Plan Policy 7.11 requires the preparation of a construction noise control plan, including measures to control pile driving noise, only if construction occurs within 500 feet of residential uses or 200 feet of commercial or office uses and would involve substantial noise-generating activities for more than 12 months. Because the Project would be implemented in phases, with no individual phase in East Palo Alto lasting more than 12 months, this policy would not apply to the Project.
- The Draft EIR (p. 4-11) explains that Mitigation Measure NOI-1 already requires that "Quieter tools, such as use of drills rather than impact tools, shall be used where feasible." Thus, the Draft EIR acknowledges and requires the use of quieter construction means and methods; however, because such methods cannot be guaranteed to be available at the time of actual construction, the Draft EIR concludes that potential construction noise impacts would remain significant and unavoidable even with implementation of Mitigation Measure NOI-1.
- As explained in more detail in **Response USEPA-2**, the Draft EIR focused its analysis on the evaluation of potential construction noise levels at the school located closest to potential construction activities: East Palo Alto Charter School, located 170 feet from the South of Bay Road Reach. All other schools would be located at least 1,400 feet from all other construction activities and would not be exposed to significant noise level increases. Thus, there is no need to notify all schools within 2,700 feet of the Project area.

3.2.2 San Francisco Bay Conservation and Development Commission (BCDC)

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (MFA) (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

Comment BCDC-1

"Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the Strategy to Advance Flood Protection, Ecosystems and Recreation along San Francisco (SAFER) Bay Project, received in our office on December 1, 2025. The San Francisco Bay Conservation and Development Commission (BCDC) is a responsible agency for this project and will rely on the DEIR when it considers the project. Our staff has prepared comments outlining specific BCDC issues or policies that should be addressed either in the DEIR or through the BCDC permitting process as appropriate. As the project design progresses, we will be able to continue working with you to ensure the project is consistent with BCDC laws and policies. The comments below are based on the McAteer-Petris Act and the Commission's San Francisco Bay Plan (Bay Plan)."

Response BCDC-1

This comment has been acknowledged, and comments are addressed in responses below.

Comment BCDC-2

"1) Minimizing Fill in the Bay

Section 66605 of the McAteer-Petris Act states, among other requirements, that fill in the Bay should be authorized only when no alternative upland location is available for such purpose, and that the water area authorized to be filled should be the minimum necessary to achieve the purpose of the fill. The DEIR describes in detail certain locations where land use constraints (such as ground contamination) prevent relocation of shoreline protection features further inland, such as portions of the North of Bay Road and South of Bay Road reaches. However, in other areas, there is not sufficient detail on constraints and how fill impacts have been minimized. Please provide an analysis of all reaches that clearly identifies where and why placement of fill into existing Bay habitats may be the only feasible alternative, describes any constraints that would make setting back of levee features infeasible, and how the Project is avoiding and minimizing impacts to Bay habitats to the greatest extent feasible. The analysis should include both direct fill impacts as well as loss of tidal action to tidal and muted tidal areas inland of levee locations."

Response BCDC-2

The comment requests a description of how the Project is avoiding and minimizing impacts to bay habitats to the greatest extent feasible (including impacts associated with direct fill and loss of tidal action), constraints that would make setting back levee features infeasible, and identification of where and why placement of fill into existing bay habitat "may be the only feasible alternative."

The reduction in impacts on wetlands and aquatic habitat, particularly in high quality marsh habitat, and constraints to more landward alignments were considered during Project development and informed the selection of the proposed design and alignment. For example, the Project incorporates the levee/floodwall hybrid in select areas as well as a 3:1 (horizontal to vertical) slope for the transition zone in most areas (as opposed to a broader slope that was initially considered) to reduce impacts in sensitive marsh habitat (e.g., Faber and Laumeister marshes). As indicated in the comment, land use constraints identified during design, including the presence of utilities and contamination, informed selection of the preferred alignment.

Draft EIR Section 3.4, Biological Resources, identifies impacts to habitats, including direct (e.g., fill) and indirect (e.g., loss of tidal action) impacts. As indicated in Section 3.4, Biological Resources, (page 3.4-75) Project implementation would result in 62.87 acres of total combined permanent impacts on wetland and aquatic habitats, the majority of which are likely within BCDC jurisdiction. (The Project also incorporates restoration of 576 acres of tidal marsh habitat as well as restoration and enhancement of 456 acres of western snowy plover breeding habitat [Draft EIR page 3.4-74].) Tables BIO4-1 through BIO4-10 in Draft EIR Appendix BIO4 present the same information regarding impacts on wetlands and aquatic habitat presented in Section 3.4 but organizes the information by reach as well as by program- and Project-level components. The tables indicate the relative contributions of each reach to permanent impacts on wetlands and other aquatic habitat as follows: South of Bay Road: 7.5 percent, North of Bay Road: 13.6 percent, Dumbarton Approach: 21.5 percent, Substation and Marsh Restoration: 32.8 percent, Tech Campus: 10.4 percent, Bayfront Expressway: 9.6 percent, Bedwell Bayfront Park: 0.5 percent, and Marsh Road: 4.2 percent.

Despite the comment's request, alternatives screening for an EIR cannot focus solely on feasibility. As discussed in Draft EIR Chapter 4, *Alternatives*, and consistent with CEQA requirements (Draft EIR pp. 4-1–4-2), the alternatives screening process involved reviewing significant impacts attributable to Project implementation, identifying ways to avoid or reduce significant impacts, and screening out potential alternatives that were not potentially feasible, did not reduce the Project's significant impacts, or failed to meet Project objectives. Draft EIR Section 2.3.2 presents the Project's objectives.

Among the significant impacts considered in alternatives screening were impacts on threatened and endangered species and their habitat, and impacts on state or federally protected wetlands and sensitive natural communities. Development of an alternative to reduce impacts on wetland and aquatic habitat involved reach-by-reach consideration by biologists and the design engineer to systematically consider opportunities to reduce impacts on wetlands and aquatic habitat, particularly where the magnitude of impacts on such habitat was greatest, while feasibly attaining most of the Project's basic objectives. The resulting action alternative developed through this process and selected for evaluation in the EIR, the MFA, involves the use of alternative designs that enable a reduction in the width of shoreline protection, which would reduce permanent impacts on wetlands and aquatic habitats by 19.5 acres (Draft EIR page 4-20). However, more than half (13.5 acres) of the avoided impacts would be in Pond R2, resulting from

replacing an earthen levee and 10H:1V transition zone slope with a levee/floodwall hybrid with a 3H:1V T-zone slope.[7]

Other potential alternatives that could reduce impacts on wetlands and aquatic habitats were identified but were found to be infeasible or unable to meet most of the Project's objectives and eliminated from further consideration. For example, a Floodwall Only Alternative (Draft EIR page 4-35) would substantially reduce impacts on wetlands and aquatic habitat in all reaches but was eliminated due to inability to meet Project objectives, including the following: *Enable adaptation to our changing climate by implementing flood protection in ways that sustain and restore marsh habitat and enhance and protect habitat for western snowy plover, consistent with the 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; and minimize future maintenance requirements*. Refer to Section 4.6.3 in Chapter 4 of the Draft EIR for additional information regarding potential alternatives screened for inclusion in the EIR.

Within this context, the following information is presented regarding factors that constrain a more landward alignment in response to this comment:

- ***South of Bay Road***. A more landward alignment was not considered feasible for this reach due to the limited space between the proposed alignment and existing development and utilities to the west; presence of land use controls due to soil and groundwater contamination and the systems in place to contain and treat that contamination; and engineering constraints associated with design and implementation of shoreline protection (see Draft EIR page 4-37). (Construction along the proposed alignment requires relocation of stormwater management facilities and a sewer line.)
- ***North of Bay Road***. The alignment segment west of the privately owned Infinity Auto Salvage property in the notice of preparation was rejected due to potential groundwater and soil contamination concerns, engineering considerations regarding the alignment of shoreline protection, and land and space constraints. A more landward alignment was considered for this reach but rejected for reasons described on Draft EIR page 4-38 (presence of contamination and the need to avoid encroaching into containment systems). (Note also that a segment of the proposed alignment is in ruderal upland, so a more landward alignment for that segment would not reduce impacts on wetlands or aquatic habitat; refer to Figures 3.4-2c and 3.4-2d in Draft EIR Section 3.4, Biological Resources.)
- ***Dumbarton Approach***. A more landward alignment was considered in this reach, but that alternative was found to be inconsistent with the Project's objective to "enhance and protect habitat for western snowy plover" because it does not include the Project's proposed shoreline protection for USFWS-designated western snowy plover critical habitat or the proposed western snowy plover habitat in Pond SF2. A levee alignment around the western perimeter of Pond SF2 was considered as part of the "Low Cost" alternative, but that alternative alignment would have had substantially greater impacts on aquatic habitat as compared to the shorter proposed alignment (see Draft EIR page 4-29).

[7] As acknowledged in the Draft EIR (page 4-20) this reduction in transition zone width 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 contrast, the proposed 10:1 slope would be restored to high quality tidal salt marsh-upland transition zone habitat, providing substantially greater ecological value by restoring space for tidal marsh habitat to transgress upslope with sea level rise. The 10:1 transition zone slope was designed such that the additional area of fill (above a 3:1 slope) is anticipated to be below the estimated high-tide line 50 years after construction.

- ***Substation and Marsh Restoration***. As shown in Figure 2-17 in Draft EIR Chapter 2, *Project Description*, there are nine transmission towers adjacent to the Ravenswood Substation. The levee cannot be located closer to the substation itself because of the numerous overhead transmission lines between the substation and the surrounding transmission towers and required clearances between levee construction and power lines.
- ***Tech Campus***. A more landward alignment was considered in this reach but was eliminated from further consideration due to the inability of the SFCJPA to reasonably acquire, control, or have access to the site and lack of environmental advantages compared to the MFA (Draft EIR page 4-39). The floodwall associated with the MFA (and proposed for implementation as part of the Project) would reduce impacts on wetlands and aquatic habitat in this reach.
- ***Bayfront Expressway***. A more landward alternative was not considered due to proximity to State Route (SR) 84 infrastructure. Shifting the levee farther inland would require placement of a substantial volume of fill immediately adjacent to the highway, which would induce settlement and could compromise the structural integrity of the roadway and associated infrastructure. The MFA incorporates the floodwall/levee design for this reach, limiting the extent to which the levee would extend into Ponds R3 and R4.
- ***Bedwell Bayfront Park***. The levee footprint was located as far landward as feasible by centering the levee on the existing pond berms. Here, the levee would function as the access road to Bedwell Bayfront Park. The MFA incorporates the floodwall/levee design for part of this reach (west of the park access road), limiting the extent to which shoreline protection would extend into Flood Slough.
- ***Marsh Road***. Land use constraints along this reach include the Bayfront Canal and development. The MFA incorporates the floodwall/levee design for this reach, limiting the extent to which the levee would extend into Pond 7c (currently used for salt production).

Some comments request consideration of narrowing the trail (to reduce the width of the levee crest) or otherwise narrowing the levee footprint to reduce impacts on wetlands and aquatic features. Other comments questioned whether the slopes of the levee could be steepened to reduce the levee's overall footprint. Please refer to **Responses CCCR-36** and **CCCR-92** for information on these topics.

Comment BCDC-3

"2) Tech Campus Reach

Please further analyze the ecological and public access benefits and tradeoffs between the Modified Footprint Alternative (MFA) and the Project for the Tech Campus Reach. The MFA would include a floodwall following Highway 84 and Hacker Way, while the Project would include a levee spanning Ravenswood Slough, causing loss of tidal action inland of the levee, but the DEIR does not compare these two options in depth. While BCDC staff generally agree that levees with broader slopes can provide greater ecological and recreational benefit than floodwalls, in this area it may be worth exploring the floodwall option further if it could prevent loss of tidal action to a substantial area of tidal and muted-tidal marsh."

Response BCDC-3

Table 4-3 (beginning on Draft EIR page 4-19) presents the evaluation of the MFA consistent with CEQA requirements and at a level of detail that meets or exceeds CEQA requirements.[8] The Project as proposed would build an earthen levee across Ravenswood Slough. This would result in the muting of tidal action in 2.00 acres of tidal brackish marsh and 0.16 acre of tidal open water. In addition, the levee would create a predator perch over the marsh, although because there are already trees along the Bay Trail adjacent to this stretch of marsh that provide perches, the impact of additional perches would not be significant. The MFA would instead build a floodwall along SR 84 and Hacker Way and build a pedestrian walkway over Ravenswood Slough, which would not result in muting of tidal action in the marsh. A floodwall was selected for the MFA to reduce permanent impacts on tidal marsh in that area. Furthermore, a levee with broad slopes would not provide much value to wildlife in the stretch of Ravenswood Slough east of the Tech Campus due to the narrow width of the slough in that location and amount of habitat that would be lost to accommodate the slopes. This stretch of the slough provides low-quality habitat for California Ridgway's rail, California black rail, and salt marsh harvest marsh due to the narrow width and high disturbance from its location adjacent to the Bay Trail and Bayfront Expressway. Floodwalls and rails along the pedestrian pathway would also create predator perches; however, there are already perches present in these areas provided by trees, fences, and road cement wall. Therefore, the floodwall option would preserve the greatest amount of wetland and aquatic habitat while not affecting habitat quality.

As noted above, the SAFER Bay Project Team is proposing to adopt select features of the MFA, including the floodwall (refer to Section 1.4 of this document).

Comment BCDC-4

"3) Environmentally Superior Alternative

The DEIR concludes that "the magnitude of permanent impacts to wetland and aquatic habitats under the 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, the Modified Footprint Alternative is considered the environmentally superior alternative." The DEIR should more clearly describe and justify why the Project would be chosen over the environmentally superior Modified Footprint Alternative."

Response BCDC-4

As indicted on Draft EIR page 4-2, the SAFER Bay Project Team "could approve an alternative, or part of an alternative, in lieu of the Project as proposed." Project approval would occur after certification of the EIR. The SAFER Bay Project Team is required to make findings, supported by substantial evidence, in association with its approval action. The findings would describe the SAFER Bay Project Team's basis for approval of the Project (or an alternative to the Project as proposed).

[8] Consistent with CEQA Guidelines section 15126.6(d), Table 4-3 presents a matrix to facilitate comparison of the impacts of the Project and the MFA to allow meaningful evaluation, analysis, and comparison. Although not required by CEQA, the Draft EIR quantifies the net change for several impacts (e.g., Impact BIO-2, which addresses impacts on wetlands), and for each impact indicates which mitigation measures would apply to the alternative and the level of significance assuming implementation of those measures.

As noted above, the SAFER Bay Project Team is proposing to adopt select features of the MFA, including the floodwall (refer to Section 1.4 of this document).

Comment BCDC-5

"4) Muted Tidal and Non-Tidal Wetlands

For purposes of identifying and calculating impacts, the DEIR groups muted tidal and non-tidal wetlands together under the category "Non tidal wetlands". Please note that BCDC's Bay jurisdiction includes wetlands that are subject to tidal action, up to a maximum of five feet above mean sea level, even if the tidal action is muted. In contrast, non-tidal wetlands would generally not be in BCDC's Bay jurisdiction, unless they were subject to BCDC's Bay jurisdiction prior to becoming non-tidal. In calculating wetland impacts, the DEIR should differentiate between muted tidal and non-tidal wetlands. In addition, if levee impacts would result in loss of tidal action in muted tidal wetland areas (which appears to be the case near the Tech Campus reach, as an example), those muted tidal areas should be counted as loss of tidal action."

Response BCDC-5

Impact BIO-2 (beginning on Draft EIR page 3.4-67) evaluates whether the implementation of the Project would 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. The evaluation quantified impacts by tidal wetlands, non-tidal wetlands (including non-tidal/muted tidal northern coastal salt marsh and seasonal wetland), managed ponds, and open water. BCDC's request has been acknowledged. Affected habitats within BCDC jurisdiction, including distinguishing between non-tidal and muted tidal wetlands, will be addressed through the permitting process with BCDC; however, we note that the majority of non-tidal wetlands in the Project area were historically tidal and likely would still be within BCDC jurisdiction. Muted tidal habitats are generally not shown as affected via conversion to non-tidal wetlands with Project implementation because muted tidal connections would be retained and these habitats would not be permanently affected. The area mapped as muted tidal wetlands near the Tech Campus reach is already fully diked off from the bay, but is mapped as muted due to infrequent tidal flooding during very high-tide events.

Comment BCDC-6

"5) Elevations

Table 2-3 (Page 2-18) specifies target elevations for the various reaches. Please specify why the target elevations vary widely among reaches. This information should also be addressed in the climate change risk assessment that will be required for the Project pursuant to the Bay Plan Climate Change Policies No. 2 and 3, as described to the project team in earlier discussions."

Response BCDC-6

The variation in target elevations across the different reaches is the result of several site-specific design factors evaluated during preliminary engineering. These factors influence the required crest height needed

to achieve a consistent level of flood protection throughout the Project corridor. Key considerations include:

1. **Projected Settlement of the Flood Protection Structures.** Anticipated settlement varies among the reaches due to differences in subsurface soil conditions, the thickness and compressibility of bay mud deposits, and the magnitude of structural loading associated with each levee or floodwall configuration. To ensure that each reach maintains the required level of protection over the long term, the target crest elevations include reach-specific allowances for both immediate and long-term settlement.
2. **Wind-Wave Run-Up and Freeboard Requirements. Local wind exposure, fetch length, shoreline orientation, and bathymetry differ along the alignment, resulting in reach-specific wind-wave run-up elevations. These variations dictate differing freeboard requirements to achieve consistent performance during storm events. As a result, target elevations increase in areas subject to greater wave generation and run-up potential.**

Comment BCDC-7

"6) Habitat Maps

The maps of existing habitat types in the DEIR are very helpful. Please include maps of expected habitat types after project construction."

Response BCDC-7

Please see Figures 2-1 through 2-4 in Draft EIR Chapter 2. Additional detail is available in Draft EIR Appendix BIO3. See also Figure 3.4-2 in Section 3.4, Biological Resources, which shows where areas of tidal or muted tidal habitat are expected to convert to non-tidal wetland habitat.

Comment BCDC-8

"7) Figure 3.4-2t (Flood Slough Area)

Please verify the land cover types in this area. In recent site visits BCDC staff determined that tidal action passes underneath the southern Marsh Road, tidally connecting Flood Slough to the unnamed waterway immediately north of the Bayfront Expressway. The maps show this waterway to be a detention basin/canal, but BCDC believes this waterway is tidal. Please also see previous comments about BCDC jurisdiction sent to the project team via email on August 7, 2025."

Response BCDC-8

Figure 3.4-2t has been revised according to Comment BCDC-8 (please refer to Chapter 4 of this document, *Draft EIR Revisions*).

Comment BCDC-9

"8) Public Access and Recreation

a) Table S-1 (Page S-4)

i) Please note there are additional public access improvements required by BCDC permits than the trails that will be impacted by this project. This includes viewing areas, parking, signage, fishing opportunities, and connections into adjacent communities. The benefits and

services of impacted public access improvements should be included in the programming for the project's design. BCDC staff will work with you to identify existing public access requirements throughout the project area.

ii) Please note that the Tech Campus has BCDC-required public shore parking, pursuant to BCDC Permit No. 1978.026.08."

Response BCDC-9

The Draft EIR describes and evaluates the public access and recreation features proposed as part of the Project, including trail realignments, levee-top trails, and access improvements (see Chapter 2 and Section 3.15). As noted by BCDC, additional public access improvements may be required through BCDC permitting. Project designers are aware that BCDC permits require public access improvements beyond the San Francisco Bay Trail itself and will work with BCDC during the permitting process to address and comply with applicable requirements, including any required viewing areas, parking, signage, fishing access, or community connections.

The SAFER Bay Project Team will coordinate with Meta representatives at the Tech Campus to ensure that requirements of Permit No. 1978.026.08 are met.

Comment BCDC-10

"b) Table S-2 (Page S-32) Transportation – Impact TRA-1

i) One mitigation measure listed is identification of parking for construction along public roadways. There are required on-street Public Shore Parking spaces required by BCDC permits, and these should not be used for contractor parking or staging until that reach is closed for construction. If Public Shore Parking is impacted by construction activities, an alternative location for this benefit should be identified and approved through BCDC's plan review process."

Response BCDC-10

Comment acknowledged. Contractor parking would be addressed through implementation of Mitigation Measure TRA-1 (Draft EIR page 3.16-12). As indicated in **Response BCDC-11**, Mitigation Measure TRA-1 has been revised to include coordination with BCDC during development of the Traffic Control Plan, through which BCDC restrictions related to public shore parking can be addressed.

Comment BCDC-11

"ii) Please note that the typical BCDC plan review process is allotted 60 days. Where traffic control plans impact or related to BCDC-required public access, the plans will need to be reviewed and approved by BCDC. Traffic control plans should be submitted with sufficient time for BCDC review and approval."

Response BCDC-11

Comment acknowledged. The SAFER Bay Project Team will submit traffic control plans for facilities that would be affected within BCDC jurisdiction for review and comment pursuant to BCDC requirements. In response to this comment, Mitigation Measure TRA-1 has been revised (please refer to Chapter 4 of this document, *Draft EIR Revisions*).

Comment BCDC-12

"c) Tidal Salt Marsh Restoration in Ponds R1 and R2 – Proposed Changes to Recreation Features (Page 2-14)

Decommissioning of the outer berm trail creates a gap in the recreational trails and removes the loop opportunity that currently exists, which adversely affects public access in this area. Please include a connector trail between the two spur trails to ensure continued shoreline access connectivity in this area. A connector trail along the new SAFER levee outboard of the substation should be analyzed for potential wildlife impacts. Such a trail alignment was included in the Modified Footprint Alternative, but we did not find detail as to why this alignment was not included in the Project. If it is determined that an alignment outboard of the substation would adversely impact wildlife, an alternate connector trail should be included along the inland side of the substation."

Response BCDC-12

As noted by BCDC, a connector trail along the new SAFER levee outboard of the Ravenswood Substation was described and evaluated as part of the MFA. That evaluation included consideration of impacts on wildlife (Table 4-2, Draft EIR page 4-20), but did not evaluate impacts on wildlife due to trail use. Construction of a connector trail on the SAFER levee outboard of the substation would result in only minor impacts on wildlife. Some songbirds, including the Bryant's savannah sparrow and San Francisco common yellowthroat, would avoid nesting at the top of the transition zone adjacent to the trail due to disturbance. However, areas of the levee slope not directly adjacent to the trail would still provide suitable nesting habitat for these species (Table 4-2, Draft EIR page 4-20).

As indicated on Draft EIR page 4-2, the SAFER Bay Project Team "could approve an alternative, or part of an alternative, in lieu of the Project as proposed." Although the SAFER Bay Project Team proposes to adopt select features of the MFA, that proposal does not currently include the trail around the substation; however, the SAFER Bay Project Team will continue to coordinate with Pacific Gas and Electric Company (PG&E), which owns and operates the substation regarding a potential trail atop that levee segment. Alternatively, the SAFER Bay Project Team could explore in the future a trail between the substation and SR 84 to ensure trail connectivity.

Comment BCDC-13

d) "Figure 2-10, North of Bay Road Reach Plan (Page 2-25)

We encourage continued coordination between the SAFER team and the developer of 391 Demeter Street."

Response BCDC-13

BCDC's suggestion to continue coordination between the SAFER Bay Project Team and the developer of 391 Demeter Street has been acknowledged.

Comment BCDC-14

"e) Detail P2/Figure 2-11 Typical Section: Program-level Reaches (Page 83)

i) Please explore addition of belvederes along the P2 segments on either side of 84.

ii) Please explore means of reducing the exposed face of floodwall. It appears the exposed face of wall is about 3.5 to 4 feet tall, which would limit bay viewing from the trail for many users."

Response BCDC-14

The SAFER Bay Project Team will explore public trail amenities (such as public viewing features or belvederes along SR 84) as the Project's design advances. However, given the Project's design criteria, trail improvements will be limited to those actions that maintain the target flood protection while not increasing the surface area of impacts on wetland habitats. For example, decreasing the wall height above the trail surface would require raising the trail elevation, which would widen the levee footprint and thereby increase wetland impacts.

Comment BCDC-15

"f) Dumbarton Approach Reach (Page 2-30)

Please note that Bay Plan Map 6, Policy 6 states: "Dumbarton Bridge - Approaches should provide for fishing and wildlife observation. Maintain existing public path." Please describe whether and how the project would still provide or allow for fishing opportunities in this area."

Response BCDC-15

The proposed design does not preclude fishing (and wildlife observation) from Dumbarton Bridge. Please refer to Draft EIR Figures 2-5 (changes to recreation facilities) and 2-13 (Dumbarton Approach Reach Plan). Figure 2-13 shows potential pedestrian access points for the proposed levee (to be confirmed during design). Refer also to **Response BCDC-16** below.

Comment BCDC-16

"g) Figure 2-15 Typical Section: Dumbarton Approach Reach Under State Route 84

i) Please describe how the transition would accommodate bicycles and pedestrians at the east end underpass.

ii) Please describe whether there would be any treatments on the underpass wall that would provide value to viewers."

Response BCDC-16

Regarding item (i), accommodation of bicycles and pedestrians at the east end underpass, the Project does not propose any modifications to the existing underpass structure beneath SR 84. The flood protection improvements in this reach would not affect pedestrian or bicycle use of the underpass. Because the underpass geometry and access paths remain unchanged, existing multimodal accommodations for bicycles and pedestrians at the east end of the underpass would continue to function as they do today. Draft EIR Figure 2-13 identifies potential locations for pedestrian access onto the levee, including two locations south of SR 84 and west of the underpass.

Regarding item (ii), treatments on the underpass wall, as indicated above, the Project would not modify the existing underpass. No aesthetic or public-facing treatments are proposed for the floodwall in this location. The floodwall is situated below the elevated highway structure and is not intended to be publicly visible from pedestrian or bicycle paths. As the proposed wall is neither accessible nor visible to the

general public, architectural, landscape, or interpretive treatments were not incorporated into the design for this segment.

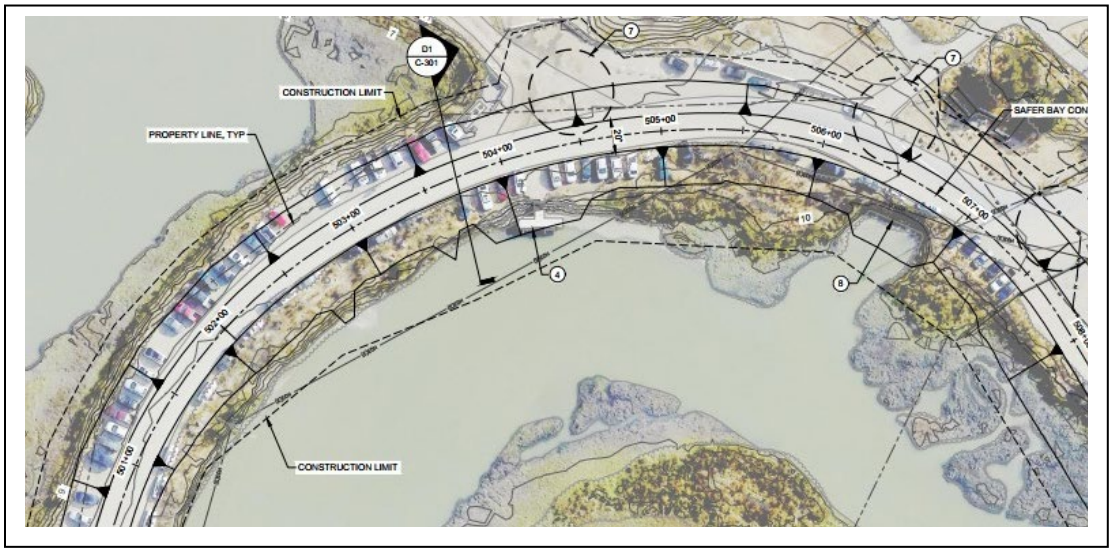
Comment BCDC-17

"h) Bedwell Bayfront Park Reach – Recreation (Page 2-55)

Please ensure the levee at the Bedwell entrance is sufficient to accommodate the driveway/road, parking, and Bay Trail."

Response BCDC-17

The proposed design, based on 10-percent design, is sufficient to accommodate the road and driveway. The image below depicts the proposed design in relation to existing conditions.



Under existing conditions, there is non-parallel parking but no dedicated lane for the trail. (The roadway is mapped as a segment of the Bay Trail.) Expanding the width of the levee to accommodate parking and a trail parallel to the road would encroach into waters of the United States and state. The SAFER Bay Project Team will continue to engage with BCDC through the Bay Restoration Regulatory Integration Team as Project development progresses regarding this and other design details.

Comment BCDC-18

"i) Marsh Road Reach – Recreation (Page 2-56)

BCDC's policies require that projects provide maximum feasible public access. We strongly encourage the inclusion of a recreational trail along the top of the levee, which would implement an important Bay Trail gap section. Please note that private property does not disqualify the site from required public access, therefore public access in this area needs to be studied further."

Response BCDC-18

Please refer to the **Global Response on Future Project Development** in Section 3.1.2 of this document.

Comment BCDC-19

"j) Table 2-4 SAFER Bay Project Implementation Schedule (Page 2-58)

The breaching of the levee takes place before the implementation of any trail improvements or connections, resulting in almost a year of lapsed access. Please minimize impacts and closures to public access and consider interim public access improvements to offset for the creation of the trail gap."

Response BCDC-19

This comment is referring to breaching the existing levees at Ponds R1 and R2 within the substation and Marsh Restoration Reach, which (as shown on Figure 2-5 and described on Draft EIR page 2-14) "would decommission approximately 1.8 miles of the existing trail between the two breach locations (refer to lower portion of Figure 2-5) and convert the decommissioned segment to T-zone habitat."

Due to the progression of reach construction, not all SAFER Bay reaches and segments of reaches (and associated trail closures) would be under construction at the same time. The Draft EIR Table 2-4 depicts the levee breaches occurring in early 2031, at the end of construction for the substation and Marsh Restoration Reach. Shoreline protection and associated trail improvements for this reach would have already been constructed prior to the levee breaches; the improved trails would be opened as part of construction closeout. Construction of shoreline protection and recreation features in the South of Bay Road Reach are also estimated to be completed by early 2031. Note that the availability of construction funding, permit requirements, and contractor means and methods will affect the final schedule.

Regarding the request to minimize closures to public access and consideration of interim public access improvements, Mitigation Measure TRA-1 requires the SAFER Bay Project Team to develop traffic control plans that include (among other things) identification of full and partial closures of trails and bicycle and pedestrian detour plans where applicable. The establishment of detour routes and the protocols associated with detour routing (e.g., trail closure mechanisms, signage) would be at the discretion of the local agency that operates each portion of the Bay Trail. Refer also to **Response BCDC-11**.

Comment BCDC-20

"k) Section 2.6.1 Construction Process (Page 2-59) and Section 3.15.3 Impacts and Mitigation Measures – Construction (Page 3.15-7)

i) Please describe how the project would minimize necessary trail closures. Please ensure the project team works with local jurisdictions, the Metropolitan Transportation Commission (MTC), and BCDC on appropriate detours/improvements to bike and pedestrian facilities for the duration of the impacts to trail and recreation facilities.

ii) All BCDC required public access, including Bay Trail segments, should have alternatives and detours during construction closures."

Response BCDC-20

Please refer to the **Global Response on Future Project Development** in Section 3.1.2 of this document, which addresses the topics raised in this comment.

Comment BCDC-21

"l) Section 2.7.3 Recreation (Page 2-69)

Please note that many segments of the Bay Trail are required public access improvements associated with BCDC permits that also include provisions for maintaining the improvements."

Response BCDC-21

The SAFER Bay Project Team acknowledges that many Bay Trail segments within the Project area are required public access improvements under existing BCDC permits and may include provisions for ongoing maintenance.

Compliance with applicable BCDC permit conditions, including requirements related to maintenance and long-term operability of public access improvements, will be addressed through coordination with BCDC during subsequent permitting and final design.

Comment BCDC-22

"9) Geology

The DEIR notes that any geological concerns will be less that significant and that they will not require any mitigation measures. Nevertheless, the proposed project design will address concerns related to ground shaking, liquefaction, soil erosion, loss of topsoil and expansive soils. Please provide information on the geologic design criteria used for various flood protective elements of the SAFER project."

Response BCDC-22

The Draft EIR summarizes design criteria applicable to levee and floodwall design in Section 3.8, Geology, Soils, and Paleontology (page 3.8-4 et seq.). The Project incorporates robust geotechnical and seismic criteria consistent with applicable United States Army Corps of Engineers (USACE) standards. These standards guide the evaluation of ground shaking, liquefaction, settlement, slope stability, foundation preparation, and performance of levees and floodwalls under both static and seismic loading.

The following USACE engineering manuals (EMs) and engineering regulations (ERs) provide the primary geologic, seismic, and geotechnical design criteria for the SAFER Bay Project:

- **USACE EM 1110-2-1902**, *Slope Stability* (October 31, 2003) – Provides methods for evaluating levee and embankment stability under static and seismic conditions.
- **USACE EM 1110-1-1804**, *Geotechnical Investigations* (January 1, 2001) – Establishes criteria for subsurface exploration, soil characterization, and geologic hazard evaluation.
- **USACE EM 1110-1-1904**, *Settlement Analyses* (September 30, 1990) – Guides settlement prediction and mitigation for compressible soils typical of San Francisco Bay Area bay mud conditions.
- **USACE EM 1110-2-1913**, *Design and Construction of Levees* (April 30, 2000) – Provides design, construction, and foundation requirements specific to earthen levees.
- **USACE EM 1110-2-6050**, *Response Spectra and Seismic Analysis for Concrete Hydraulic Structures* (June 30, 1999) – Provides design criteria for seismic loading on floodwalls and related structures.

- **USACE EM 1110-2-6053**, *Earthquake Design and Evaluation of Concrete Hydraulic Structures* (May 1, 2007) – Supplements seismic hazard and performance evaluation of floodwalls and similar structures.
- **USACE EM 1110-2-2502**, *Retaining Walls and Floodwalls* (August 1, 2022) – Provides current, detailed design requirements for floodwalls, including stability and geotechnical considerations.
- **USACE ER 1110-2-1150**, *Engineering and Design for Civil Works Projects* (August 31, 1999) – Establishes general design standards and requirements for civil works engineering.
- **USACE ER 1110-2-1806**, *Earthquake Analysis, Evaluation, and Design for Civil Works Projects* (May 29, 2024) – Provides updated requirements for seismic hazard analysis, geotechnical seismic design, and facility performance criteria.

Comment BCDC-23

"10) Flood gate at Bay Road

The DEIR notes that a single flood gate will be installed at Bay Road. Please provide design of the flood gate, at least at a conceptual level, with the flooding conditions for which it will be designed."

Response BCDC-23

As indicated in the Draft EIR (page 2-5), the Project, including the flood gate, is being designed to satisfy current Federal Emergency Management Agency (FEMA) coastal flood protection requirements (i.e., the existing 100-year flood event with required freeboard for FEMA accreditation) and an additional 3.5 feet of elevation to account for anticipated sea level rise by 2100 as well as other applicable FEMA design criteria (e.g., for the evaluation of settlement and structural stability). The Department of Water Resources Urban Levee Design Criteria, Title 23, Division 1 of the California Code of Regulations (January 22, 2010), and the USACE Geotechnical Levee Practice Standard Operating Procedure (April 11, 2008) provide guidance for Project design. Although the flood gate has not been designed, a flood gate type has been identified. As indicated on Draft EIR page 2-23: "This flood gate would lay flat, embedded in the roadway, to allow access to the Cooley Landing Education Center most of the time. When bay floodwaters rise to the height of Bay Road at the gate's location, the gate would automatically rise to provide contiguous flood protection from the South of Bay Road Reach to the North of Bay Road Reach."

Comment BCDC-24

"11) Levee Plans and Design

a) The levee plans show that sections of the levee will use a geogrid on the waterside slope. Please provide a more detailed design for the geogrid element and identify how the waterward slope of the levee will terminate, how the geogrid will be maintained, and whether there will be any constraints on the plantings."

Response BCDC-24

As currently designed, the geogrid reinforcement is confined to the structural levee fill and does **not** extend into the surface horticultural soil layer applied to both the waterside and landside levee slopes. The geogrid element is embedded within the engineered levee embankment to provide internal stability and slope reinforcement. At the waterside slope, the geogrid terminates **beneath the horticultural soil layer,**

fully encapsulated within the compacted fill and not exposed at the surface. Because the geogrid remains buried at depth and is separated from environmental exposure by the overlying soil layers, it **does not require ongoing maintenance.**

The horticultural soil layer applied above the geogrid provides the growing medium for the vegetated slope. Since the geogrid is located below this layer and does not interact with the root zone**, there are no constraints on plantings associated with the geogrid reinforcement system**. Plant species appropriate for the levee's habitat and erosion-control functions may be used without limitation related to the geogrid.

Additional detail on the geogrid configuration, embedment depth, and termination limits will be provided during final design.

Comment BCDC-25

"b) In Figure 2-11, please describe the substructure below the levee."

Response BCDC-25

Figure 2-11 of the Draft EIR depicts two typical levee foundation conditions constructed over thick young bay mud. In both the P1 and P2 sections, the substructure consists of engineered fill placed above the native bay mud layer.

Comment BCDC-26

"c) Figure 2-15 notes that there are callouts F1 and F3, however Figure 2-13 shows callouts F1 and F2. Was F3 a typo, or is there a third call-out that was not shown?"

Response BCDC-26

Figure 2-15 has been revised to correct "F3" to "F2," consistent with Figure 2-13 (refer to Chapter 4 of this document, *Draft EIR Revisions*).

Comment BCDC-27

"d) Project plans show that the trails around the Ravenswood Substation will be constructed across some areas that are now inundated. How will the drainage be modified to address this situation?"

Response BCDC-27

BCDC apparently is referring to the northernmost segment of the Dumbarton Approach Reach where that reaches crosses the southernmost part of the Moseley Tract (Draft EIR Figure 2-13).

The Project design includes replacement tidal channels, reflecting the intention to replace marsh hydraulic connectivity lost by the levee to avoid impairing marsh vegetation and habitat function or compromising the structural integrity of the levee (Draft EIR page 2-30). The design of the Project reach identified in the comment is conceptual because only 10-percent design information is available at this time; consequently, this reach is evaluated at a program level of detail. In response to this comment, and to be consistent with Project objectives and design considerations applicable to the Project, the EIR and Habitat Restoration Basis of Design (included as Draft EIR Appendix BIO3) have been revised to include a replacement tidal channel in Moseley Tract Marsh. Like the other replacement channels included in the Project, the

replacement channel in Moseley Tract Marsh would have similar widths and depths as the affected channel. The text on Draft EIR pages 2-14, 3.4-69–3.4-70, Draft EIR Figure 3.4-2h and 3.4-2i, and parts of Appendix BIO3 have been revised (refer to Chapter 4 of this document, *Draft EIR Revisions*).

Comment BCDC-28

"e) The US Army Corps of Engineers has design criteria for many structures. Please identify what design criteria will be used specifically for these levees."

Response BCDC-28

Please refer to **Response BCDC-22**.

Comment BCDC-29

"12) Site Hydrology

a) The water levels at several of the Ponds are now or will be controlled by structures. Please identify likely modifications that might be needed in the future to maintain habitat values. Will any of the SAFER project elements limit significantly the future water management options?"

Response BCDC-29

The water levels in the managed habitat ponds R1, R2, R3, SF2, R5, and S5 (Draft EIR Figure 2-2) that border the Project alignment are owned by the United States government (and administered by the U.S. Fish and Wildlife Service) and managed as part of the South Bay Salt Ponds Restoration Project (SBSPRP). As described in the Draft EIR (page 2-6), "[t]he SBSPRP's programmatic environmental impact statement/report (EIS/R) calls for large-scale restoration of tidal salt marsh habitat in and adjacent to the SAFER Bay Project site, which involves breaching pond berms. The SBSPRP is currently using an adaptive management process to guide restoration activities. The SAFER Bay Project Team is coordinating closely with the SBSPRP to ensure consistency with SBSPRP goals and objectives." All water level management for the ponds with the Project are consistent with the range of Year 50 alternatives outlined in the SBSPRP's long-term adaptive management plan.[9] Information on alterations to water management occurs in different parts of the Draft EIR and appendices; in response to this comment, the information below summarizes water management by pond complex:

- ***Pond R1 and Pond R2.*** As indicated in the Draft EIR (page 2-8), Pond R1 would be subject to full tidal exchange with the bay by breaching the external berms that currently separate the pond from the bay. Therefore, existing water control structures would no longer be needed to manage water levels in this pond and these structures would be removed. The outboard part of Pond R2 would be connected to Pond R1 by breaching the internal berm between Pond R1 and Pond R2. The outer portion of Pond R2 would also be subject to full tidal exchange with the bay and not require water control structures. The portion of Pond R2 that would be landward of the Project levee would continue to be managed pursuant to current practice. Because the Project levee would cut off this portion of the pond from the rest of the pond's storage volume, additional stormwater management may be needed to

[9] EDAW, Philip Williams & Associates, H.T. Harvey and Associates, Brown and Caldwell, and Geomatrix. 2007. *South Bay Salt Pond Restoration Project Final Environmental Impact Statement/Report.* Prepared for U.S. Fish and Wildlife Service and California Department of Fish and Game.

accommodate runoff from the PG&E substation; as described in the Draft EIR (p. 3.11-49), further hydrologic assessment is required to analyze and, if necessary, design this system.

- ***Pond R3.*** Water levels in Pond R3 currently are managed by a culvert structure in the existing embankment separating this pond from Ravenswood Slough (see Draft EIR Figure 3.11-2). This water control structure does not fall along the Project alignment and would not be modified by the Project. This structure would be used to supply water to the proposed borrow ditch along the south side of Pond R3 (Draft EIR Figure 2-4b) to provide a water barrier discouraging predators from reaching plover nests in the interior of Pond R3.
- ***Pond SF2.*** The water levels in ponds in the eastern half of SF2 (Draft EIR Figure 2-4a, Cells U1, U2, and U4) are currently managed through a series of water control structures. Gravity-induced flows through these structures are modulated by adjusting the structures' conveyance to achieve the target water levels in SF2 for bird habitat. Water levels in Cell U1, which would be outboard of the Project levee, would continue to be managed by the existing water control structures that connect this cell to the bay. With the Project, Cell U2 and Cell U4 would be landward of the proposed levee and converted from perpetually inundated shorebird habitat to western snowy plover habitat (Draft EIR Figure 2-2). Cell U3 is already managed as western snowy plover habitat and would continue to be managed in this way once Cell U3 is merged with Cell U2 and Cell U4. Water levels in this habitat vary between plover non-breeding season and breeding season (Draft EIR p. 2-13). This water level management would be implemented with a pump located atop of the Project levee (Figure 2-4a).
- ***Pond R5 and Pond S5.*** These ponds are currently managed for wetlands habitat and storage capacity for overflow from the Bayfront Canal. Some of the culverts, which are used to manage conveyance to/from these ponds and water levels within these ponds, pass through the Project levees in the Bedwell Bayfront Park Reach. These culverts would be replaced within the new levee to continue to allow for water level management in these ponds according to their habitat objectives (Draft EIR, page 3.11-52).

Comment BCDC-30

"b) Several of the levee segments will have sheet pile walls that will likely go through groundwater layers. The Gilken Sheet pile system will constrain groundwater flow. These impacts have not been discussed in the DEIR. Please discuss the ways that groundwater will be modified, associated impacts, and possible measures to minimize these impacts."

Response BCDC-30

Comment BCDC-30 and several other comments (Palo Alto-10, CCCR-111, CCCR-112, and Nuestra Casa-2) recommend the EIR discuss the effects on local groundwater of sheet pile walls included in portions of the levee. To clarify the purpose, locations, and depths of the proposed sheet pile walls, the Draft EIR has been revised (refer to Chapter 4 of this document, *Draft EIR Revisions*). As shown in Chapter 4, the purpose of including sheet pile walls in some locations along the levee alignment is to provide vertical support to reduce potential settlement. Approximately 35 percent of the levee alignment would include sheet pile walls (the full length of the South of Bay Road Reach, approximately one-third of the Dumbarton Approach Reach [along the frontage roads on either side of and under SR 84], and the full length of the Tech Campus Reach). The proposed levee fill would increase the amount and hence weight of fill pressing down on the bay mud layer that underlies the Project alignment. Settlement would

reduce the levee crest elevation, and differential settlement could reduce the levee stability and adversely affect nearby infrastructure or development. Draft EIR Impact GEO-3 (page 3.8-12) discusses the potential for differential settlement and describes the USACE design criteria requirements that would apply to the Project and reduce the risk of adverse settlement.

Gilken refers to a construction method for installing sheet piles using a hydraulic press to drive the piles into the ground, as compared to other installation methods that use hammering or vibration to drive piles. The sheet pile installation method is not relevant to the long-term effects of the piles once they are installed, or the potential to alter existing groundwater conditions.

The Draft EIR Impact HYD-3 (beginning on Draft EIR page 3.11-43) has been revised to incorporate an analysis of the potential for the sheet pile walls to interact with groundwater (refer to Chapter 4 of this document, *Draft EIR Revisions*). As discussed in Chapter 4, the sheet piles would not substantially change the absolute groundwater flow rates through the bay mud layer because the existing hydraulic conductivity in much of the soil that the sheet piles would penetrate is already very low. In addition, the sheet pile wall would extend less than halfway through the sediment layers with higher hydraulic conductivity below the bay mud.

As revised, Draft EIR Impact HYD-3 further details that the potential effect on shallow groundwater would be insubstantial. Nonetheless, the SAFER Bay Project Team may review existing groundwater monitoring well networks in San Mateo County and consider supplementing that network (to be determined in the future).

3.2.3 California Department of Transportation (Caltrans)

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

Comment Caltrans-1

> "Please ensure that any increase in storm water runoff to State Drainage Systems or Facilities be treated, contained on project site, and metered to preconstruction levels. Any floodplain impacts must be documented and mitigated."

Response Caltrans-1

Draft EIR Impact HYD-3 evaluates whether, with the proposed drainage facilities in Table 3.11-6, the Project would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or impede or redirect flood flows. State Drainage Systems or Facilities in the Project vicinity consist of drainage pipelines in the frontage road adjacent to State Route (SR) 84 and the Frontage Road Pump Station (in the Dumbarton Approach Reach); Ravenswood Pump Station and adjacent box culvert (Tech Campus Reach); and California Department of Transportation (Caltrans) Channel and Outfall (Bedwell Bayfront Park Reach). As shown in Draft EIR Table 3.11-6 (page 3.11-44 et seq.), the Project would protect in place, relocate, or replace these drainage facilities.

Comment Caltrans-2

"Hydrology

The proposed flood protection measures, such as floodwalls and levees, may conflict with existing State drainage facilities. The proposed work at SR 84 and Ravenswood Slough will likely require concurrence by Caltrans. Please ensure existing State and local drainage facilities are surveyed, identified, and shown on project plans. Proposed drainage and flooding design changes will need to address any drainage-related conflicts. The Office of Hydraulic Engineering looks forward to reviewing proposed drainage solutions and helping to resolve potential drainage concerns and conflicts."

Response Caltrans-2

Refer to **Response Caltrans-1**. As noted in **Response Caltrans-1**, the Draft EIR identifies the drainage facilities near SR 84 and Ravenswood Slough. Draft EIR Table 3.11-6 (page 3.11-44) lists the Project activities at drainage features along the Project alignment and identifies whether the Project would protect in place, relocate, or replace these features.

The SAFER Bay Project Team will continue to reach out to coordinate with Caltrans on drainage and other concerns. Field reconnaissance, underground utility location, and field surveys conducted to date do not indicate substantial potential conflicts between State drainage facilities and proposed infrastructure to be constructed as part of the Project. Modifications required near the outfall of the Ravenswood Pump Station would be coordinated with Caltrans. The proposed modifications would not interfere with pump station operations or change that operation.

Comment Caltrans-3

"The general explanation of how flood protection facilities will be maintained and by whom appears to be sufficiently addressed in this DEIR. However, please also provide a more comprehensive explanation of agency/partner commitments and resources (e.g., funding and personnel) to be allocated to regular maintenance of the proposed flood protection facilities as part of a flood protection management plan to ensure better clarity and transparency of flood protection responsibilities."

Response Caltrans-3

Draft EIR Section 2.7, Operation and Maintenance, describes proposed operation and maintenance activities associated with the Project. As stated in Draft EIR Section 2.7, SFCJPA member agencies would be responsible for conducting routine inspections of the shoreline protection facilities, maintaining flood gates, managing interior drainage, and maintaining the Bay Trail. Existing landowners would be responsible for maintaining public trails on their property. The South Bay Salt Ponds Restoration Project and/or Don Edwards San Francisco Bay National Wildlife Refuge would be responsible for monitoring and maintenance of proposed restoration areas.

The purpose of the EIR is to evaluate the Project's potential to affect the physical environment. The EIR evaluates the environmental effects of operation and maintenance; it does not identify specific long-term funding sources or personnel allocations, and it is not required to do so. Infrastructure operation and maintenance, including funding, maintenance responsibilities, and resource allocation are important Project considerations that will be addressed prior to initiation of Project construction. Maintenance

responsibilities and funding mechanisms will be established through subsequent agreements, permit conditions, and applicable regulatory requirements as the Project advances. This comment does not address the adequacy or accuracy of the Draft EIR's discussion of physical impacts.

Comment Caltrans-4

> "Chapter 3.3 Air Quality, Existing Ambient Air Quality (page 3.3-6): Regarding the statement, "As shown in Table 3.1-1, the state 1-hour ozone standard of parts per million (ppm) and the state/federal 8-hour ozone standard of 0.07 ppm was exceeded in Redwood City on days 1 and 3, respectively," please clarify whether this means two days in 2019 and one day in 2020 per Table 3.3-1."

Response Caltrans-4

As shown in Table 3.3-1 of the Draft EIR, over the years 2019 to 2023, the state 1-hour ozone standard of 0.09 parts per million (ppm) was exceeded on 1 day (in 2020), and the state/federal 8-hour ozone standard of 0.07 ppm was exceeded on 3 days (2 days in 2019 and 1 day in 2020) at the Redwood City monitoring station.

Comment Caltrans-5

> "Chapter 3.13 Noise and Vibration, Table 3.13-11 (page 3.13-23): Please explain the use of impact pile driver for grading."

Response Caltrans-5

The Tech Campus Reach could include the use of pile drivers to construct the levee/floodwall hybrid infrastructure identified in this area; the inclusion of the pile driver under the *grading* noise evaluation was an inadvertent mistake. The SFCJPA has revised the discussion of Tech Campus Reach construction noise impacts on page 3.13-23, including Table 3.13-11, to clarify the use of pile drivers (refer to Chapter 4 of this document, *Draft EIR Revisions*). This change does not affect the conclusions of the Draft EIR (it reorganizes information already presented in the Draft EIR).

Comment Caltrans-6

> "Chapter 3.13 Noise and Vibration, Tech Campus Reach (page 3.13-24): Please clarify why the impact remains significant if the noise reduction is less than 10dBA after mitigation."

Response Caltrans-6

The Noise Control Plan required by Mitigation Measure NOI-1 may reduce construction noise levels from grading by up to 10 A-weighted decibels (dBA); however, the Noise Control Plan would not reduce pile-driving noise levels. Thus, as shown in revised Table 3.13-11, noise from pile driving could result in a +12 dBA increase above existing ambient noise levels, which is considered a significant impact.

Comment Caltrans-7

> "Chapter 3.13 Noise and Vibration, Operation and Maintenance (page 3.13-30): Please provide an explanation demonstrating that the projected increase in truck traffic over existing volumes does not cause a significant rise in noise levels."

Response Caltrans-7

The text on Draft EIR page 3.13-30 inadvertently referenced traffic noise-level increase estimated using Federal Highway Administration algorithms. As stated on Draft EIR page 3.13-30, operation and maintenance activities would result in up to two truck trips per month on the regional and local roads used to access the site, or approximately one trip to and from the site every 15 days. This amount of traffic (two truck trips per month) would not result in a substantial increase in noise because Caltrans considers a doubling of traffic volumes to result in a +3 dBA increase in noise levels and the existing regional and local roadways used to access the site carry hundreds and thousands of vehicles per day. Thus, operation and maintenance trips would not result in an imperceptible change in traffic noise levels, which is considered to be a less-than-significant impact. The text on page 3.13-30 has been revised to remove the reference to the Federal Highway Administration algorithms (refer to Chapter 4 of this document, *Draft EIR Revisions*). This change does not affect the conclusions of the Draft EIR because it does not affect the reasons why operational traffic noise would be less than significant (i.e., minor traffic changes that do not result in a doubling of traffic volumes or a +3 dBA increase in traffic noise levels).

Comment Caltrans-8

> **"Climate Change/Sea Level Rise**
>
> The Dumbarton Bridge west approach and sections of SR 84 included in the project area are vulnerable to sea level rise. The Caltrans District 4 Climate Change Planning Branch is already coordinating with the San Francisquito Creek Joint Powers Authority (SFCJPA), the cities of Menlo Park and East Palo Alto, and other stakeholders in identifying solutions to achieve project objectives. Caltrans will continue to participate in regular interagency coordination meetings for the SAFER Bay Project."

Response Caltrans-8

The SAFER Bay Project Team acknowledges this comment and commits to continued coordination with Caltrans.

Comment Caltrans-9

> **"Construction-Related Impacts**
>
> Project work that requires movement of oversized or excessive load vehicles on State roadways requires a transportation permit that is issued by Caltrans. To apply, please visit Caltrans Transportation Permits (link).
>
> Prior to construction, coordination may be required with Caltrans to develop a Transportation Management Plan (TMP) to reduce construction traffic impacts to the State Transportation Network (STN)."

Response Caltrans-9

The cities of East Palo Alto and Menlo Park will develop the necessary plans and acquire permits required by Caltrans prior to construction.

Comment Caltrans-10

"Equitable Access

If any Caltrans facilities are impacted by the project, those facilities must meet Americans with Disabilities Act (ADA) Standards after project completion. As well, the project must maintain bicycle and pedestrian access during construction. These access considerations support Caltrans' equity mission to provide a safe, sustainable, and equitable transportation network for all users."

Response Caltrans-10

Public trails and access, including within State rights-of-way, will meet Americans with Disabilities Act requirements. Trail segments would be closed when a particular reach is under construction. As indicated in the Draft EIR (page 3.15-7), no detour routes have been established; the establishment of detour routes and the protocols associated with detour routing (e.g., trail closure mechanisms, signage) would be at the discretion of the local agency that operates each trail segment. Mitigation Measure TRA-1 (Draft EIR page 3.16-12) requires the SAFER Bay Project Team to develop traffic control plans that include (among other things) identification of full and partial closures of trails and bicycle and pedestrian detour plans where applicable. There appear to be alternative routes that address Caltrans' concern. The SAFER Bay Project Team will coordinate with Caltrans and other relevant parties regarding the establishment of safe, effective detours.

Comment Caltrans-11

"Encroachment Permit

Please be advised that any temporary or permanent work including traffic control that encroaches in, under, or over any portion of the State highway Rights-of-Way (ROW) requires a Caltrans-issued encroachment permit.

The Office of Encroachment Permits requires 100% complete design plans and supporting documents to review and circulate the permit application package. The review and approval of encroachment projects is managed through the Encroachment Permits Office Process (EPOP) or the Project Delivery Quality Management Assessment Process (QMAP), depending on project scope, complexity, and completeness of the application. Please use the following resources to determine the appropriate review process:

- TR-0416 Applicant's Checklist (link)
- Caltrans Encroachment Projects Processes – Information Video
- Flowchart, Figure 1.2 in Section 108, Overview of the Encroachment Review Process, of Chapter 100 – The Permit Function, Caltrans Encroachment Permit Manual

The permit approval typically takes less than 60 days, but may take longer depending on the project scope, size, complexity, completeness, compliance with applicable laws, standards, policies, and quality of the permit package submitted. Projects requiring exceptions to design standards, exceptions to encroachment policies, or external agency approvals may need more time to process.

To obtain more information and download the permit application, please visit Caltrans Encroachment Permits."

Response Caltrans-11

East Palo Alto and Menlo Park will apply for encroachment permits from Caltrans as needed prior to construction.

Comment Caltrans-12

> "Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, please contact Luana Chen, Associate Transportation Planner, via LDR-D4@dot.ca.gov. For future early coordination opportunities or project referrals, please visit Caltrans LDR website (link) or contact LDR-D4@dot.ca.gov."

Response Caltrans-12

This comment has been acknowledged.

3.2.4 California State Lands Commission (CSLC)

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

Comment CSLC-1

> "The Commission is a trustee agency for projects that could directly or indirectly affect State sovereign lands and their accompanying Public Trust resources or uses. Additionally, because the Project involves work on State sovereign land under the Commission's jurisdiction, the Commission will act as a responsible agency.
>
> **Commission Jurisdiction and Public Trust Lands**
>
> The Commission has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The Commission also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6009, subd. (c); 6009.1; 6301; and 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the common law Public Trust Doctrine.
>
> As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the state for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tideline (MHTL), except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court.
>
> After review of the information contained in the Draft EIR and the Commission's records, Commission staff has determined that portions of the Project area will include State-owned sovereign land under the jurisdiction of the Commission. Therefore, a lease from the Commission will be required for any portion of the Project on State sovereign land. The Commission has a lease in the

Project area with the U.S. Fish and Wildlife Service including Ravenswood Slough. On August 20, 1981, the Commission authorized a General Lease – Public Agency Use, Lease No. PRC 6045.9, for the operation, management, protection, and maintenance of State sovereign land to be used in conjunction with the San Francisco Bay National Wildlife Refuge, which encompasses refuge areas in Alameda, San Mateo, and Santa Clara counties. The lease will expire on August 31, 2047.

The Commission also has a lease in the vicinity of Flood Slough with the Menlo Park Sanitary District. On December 20, 1979, the Commission amended a Permit – Public Agency Use, No. PRC 5486.9, for the construction and maintenance of a sanitary pumping station. This lease will expire on May 31, 2044. Commission staff has identified Commission-owned parcels that may be within the project area, particularly San Mateo County Assessor's Parcel Numbers (APNs): 055-400-170, 055-400-460, 055-411-060, and 096-220-270. These parcels occur waterward of the MHTL within Ravenswood Slough. The Commission also has jurisdiction over APN 055-400-430 adjacent to the northern San Francisco Bay side of Pond R1 of the Project area. Any Project work activities extending into this APN would also require Commission authorization.

An application may be submitted to the Commission through the online application portal (OSCAR.slc.ca.gov). If you have questions specific to jurisdiction, lease provisions, or the application process, please contact the Public Land Management Specialist identified at the end of the letter. Commission staff encourage the Project team to coordinate with Commission staff early when applying for a lease for the use of state lands. This includes staff in our Land Management Division and staff in the Commission's Climate Adaptation and Special Initiatives (CASI) team. Early coordination will ensure the Project's consistency with the protection and enhancement of Public Trust resources, and the Commission's guidance on how to minimize risks to Public Trust resources from sea level rise (see the 2023 Shoreline Adaptation and the Public Trust report). Please see the end of the letter for CASI staff contact information."

Response CSLC-1

This comment describes the scope of the Commission's authority generally (first and second paragraphs) and specifically within the Project area (fourth and fifth paragraphs), and procedures for applying for a lease (last paragraph). The SAFER Bay Project Team will coordinate with Commission staff and obtain necessary approvals prior to implementation of Project activities within these areas. No changes are indicated for the EIR.

Comment CSLC-2

"Project Description

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 Project area has designated reaches for shoreline protection, habitat improvements, and recreation. From the Project Description, Commission staff understands that the following Project reaches (evaluated at a program level of detail) have the potential to affect State sovereign land:

- Tech Campus Reach: For shoreline protection, levee and levee/floodwall hybrid construction is proposed along Ravenswood Slough adjacent to State Route 84. Habitat improvement work includes a primary breach location between Ravenswood Slough and Pond R1.

A bayward channel is proposed to be excavated through Ravenswood Slough, downstream of the primary breach, to improve the tidal connection between Ponds R1 and R2 and the Bay (via Ravenswood Slough). In addition, revegetation of levee slopes with transition zone habitat may extend into the Commission's jurisdiction on the northern San Francisco Bay side of Pond R1.

- Bedwell Bayfront Park Reach: For shoreline protection, levee construction is proposed along Flood Slough. Habitat improvement work includes revegetation of levee slopes with transition zone habitat adjacent to Flood Slough."

Response CSLC-2

This comment, which summarizes information from the Draft EIR's Project Description, has been acknowledged. No changes are indicated for the EIR.

Comment CSLC-3

"Environmental Review

Commission staff requests that SFCJPA consider the following comments on the Project's Draft EIR to ensure that impacts to State sovereign land are adequately analyzed for the Commission's use of the Final EIR when considering a future lease application for the Project.

General Comments

1. Program vs. Project EIR Analysis: Project components within Commission jurisdiction are evaluated at a program level (10 percent design level) and would likely require supplemental CEQA analysis following further development/design of the Project components. Consequently, many affected resources were not evaluated at a Project level. Please be advised that the Commission's use of the Final EIR for issuance of a lease for Project components within Commission jurisdiction must include a Project-level analysis of environmental impacts in accordance with CEQA."

Response CSLC-3

The SAFER Bay Project Team acknowledges the Commission's comment regarding the program-level evaluation of certain Project components within its jurisdiction. As described on Draft EIR page 2-5, "Changes may occur to the program-level components described and evaluated as design progresses due to factors such as funding, land acquisition, permitting requirements, site-specific physical constraints (e.g., utilities, geotechnical conditions, or right-of-way access), or other modifications." As design advances, the SAFER Bay Project Team will coordinate with Commission staff and provide any relevant supplemental CEQA documentation necessary to support the Commission's consideration of a future lease application. Please refer to the **Global Response on Project and Program Analysis** Section 3.1.1 of this document for additional information regarding supplemental CEQA documentation.

Comment CSLC-4

"2. Project Description: The Project Description lacks a detailed description of construction activities occurring waterward of the MHTL, particularly for proposed work along Ravenswood Slough and Flood Slough. With current figures in the Draft EIR, Commission staff cannot determine the extent of proposed work occurring waterward of the MHTL within the

Commission's leasing jurisdiction. In particular, the Project Description should include design elevation details from Appendix BIO3 for the proposed high tide refugia habitat improvements.

Response CSLC-4

The SAFER Bay Project Team acknowledges that more details regarding the location of the mean high tide line within the Commission's leasing jurisdiction would be required to support a future lease application for the Project. As discussed in Response CSLC-3, as design advances, the SAFER Bay Project Team will coordinate with Commission staff and provide relevant supplemental CEQA documentation necessary to support the Commission's consideration of a future lease application. The Draft EIR evaluates impacts on tidal habitats in San Francisco Bay in Section 3.4, Biological Resources. Figures 3.4-2jn through 3.4-2nj and 3.4-2t in Section 3.4 depict upland and wetland habitats based on detailed mapping by qualified biologists, as well as impacts to these habitats. The following habitats can be assumed to be waterward of the MHTL: tidal northern coastal salt marsh, tidal open water, tidal brackish marsh, muted tidal open water, and portions of non-tidal/muted tidal northern coastal salt marsh with a connection to tidal waters. The landward boundaries of these habitats can be assumed to be approximately the MHTL. As noted in the comment, Draft EIR Appendix BIO3 provides reach-specific cross-sections, including relevant tidal datums (Figures 10 and 15-19).[10]

Comment CSLC-5

"Biological Resources:

3. Aquatic Invasive Species: One of the major stressors in California waterways is introduced species. The Biological Resources section of the Draft EIR only includes analysis of invasive plant species. Therefore, the EIR should consider the Project's potential to encourage the establishment or proliferation of all aquatic invasive species (AIS), including aquatic plants. For example, construction boats and barges brought in from long stays at distant projects may transport new species to the Project area via vessel biofouling, wherein marine and aquatic organisms attach to and accumulate on the hull and other submerged parts of a vessel.

Prevention measures or mitigation could include contracting local vessels and barges or requiring contractors to inspect and clean the hull and other underwater surfaces of vessels prior to arrival at the Project area. The Commission's Marine Invasive Species Program could assist with this analysis as well as with the development of appropriate mitigation (information at https://www.slc.ca.gov/misp/).

The EIR should identify the home port location of barges and work vessels to inform the analysis of potential risk from work vessels coming from a known location with AIS of management concern. Commission staff recommends contracting with work vessels within San Francisco Bay west of the Carquinez Strait to avoid the introduction of new AIS to the Project's aquatic area."

Response CSLC-5

Mitigation Measure BIO-5 has been modified to include prevention of spread of invasive aquatic plants and organisms during the use of barges and/or work vessels (refer to Chapter 4 of this document, *Draft EIR Revisions*). The anticipated Project action involving such equipment includes the dredging of

[10] Please note that subsequent to publication of the Draft EIR, H.T. Harvey & Associates made minor revisions to Appendix BIO3 (refer to Appendix BIO3-REV in this document).

Ravenswood Slough associated with the proposed breach of the berm at Pond R1 to restore tidal action to Ponds R1 and R2.

Comment CSLC-6

> "Climate Change
>
> 4. Sea Level Rise: The partial designs for the Project's shoreline protection structures (levees and floodwalls) include information about other relevant site conditions groundwater table, land subsidence, drainage systems, and other flood control infrastructure such as pump stations, new and existing flood channels, and diversion and overflow storage. However, Commission staff recommends that the final designs articulate the extent to which these complex site condition factors will affect the ultimate height of the flood protection structures, as well as settlement and structural stability and integrity."

Response CSLC-6

The Project's final shoreline flood protection design incorporates all relevant physical and climate-related factors that influence the required crest elevation and long-term structural performance. The proposed top-of-levee and floodwall elevations are based on a comprehensive engineering evaluation that includes:

- **Projected Sea Level Rise.** The design integrates regionally accepted sea-level rise projections for the Project's planning horizon. These projections inform the required stillwater elevation and ensure that the flood protection system remains resilient under anticipated future conditions.
- **Induced Settlement from Structural Loading.** Anticipated settlement of the embankment and underlying foundation soils resulting from the added structural loads have been evaluated through geotechnical analyses. The final design incorporates appropriate allowances for both immediate and long-term settlement to maintain the required flood protection elevation over the structure's service life.
- **Site-Specific Wind Wave Run-Up.** Wind wave generation and run-up were analyzed using site-specific parameters, including local wind patterns, fetch, bathymetry, and shoreline geometry. The flood protection structure crest elevation includes allowances for wave run-up and associated freeboard to ensure robust performance during storm events.

By integrating sea level rise projections, settlement considerations, and wave run-up characteristics, the final crest elevation reflects a comprehensive, site-specific, and climate-adaptive design approach. These considerations ensure that the Project's flood protection structures will maintain stability, integrity, and effectiveness throughout their intended operational life.

Comment CSLC-7

> "Cultural Resources
>
> 5. Title to Resources within Commission Jurisdiction: The EIR should state that the title to all archaeological sites and historic or cultural resources on or in the tide and submerged lands of California is vested in the State and under the jurisdiction of the California State Lands Commission (Pub. Resources Code, §6313).
>
> Staff requests that the following statement be included in Mitigation Measure CUL-3 (Inadvertent Discovery of Cultural Resources) of the EIR: "The final disposition of archaeological, historical,

and paleontological resources recovered on State lands under the jurisdiction of the California State Lands Commission must be approved by the Commission."

Response CSLC-7

Mitigation Measure CUL-3 has been revised accordingly. Refer to Chapter 4 of this document, *Draft EIR Revisions*.

Comment CSLC-8

"Hydrology/Water Quality

6. Dredging and San Francisco Bay Dredge Materials Management Office (DMMO): The EIR should clearly identify if proposed dredging of the bayward channel would be new dredging or a continuation of existing dredging activities (see next paragraph, below, for a discussion on dredging and jurisdictional agency review). The EIR should also explain if future maintenance dredging would be needed for the bayward channel in order to maintain the proposed design elevation for the channel and tidal exchange with Ponds R1 and R2."

Response CSLC-8

The Project does not propose ongoing maintenance dredging of the bayward channel to maintain tidal exchange with Ponds R1 and R2. As discussed in the SAFER Bay Habitat Restoration Basis of Design report (Habitat Restoration BOD, Draft EIR Appendix BIO3), construction of the bayward channel is included in the Project because it accelerates achieving full tidal connectivity between the bay and the interior of Ponds R1 and R2. Restored tidal flows from the site would tend to scour and enlarge the existing Ravenswood Slough channel. Eliminating or reducing the constructed size of the bayward channel may avoid direct construction impacts bayward of the breach but may also restrict initial tidal exchange and thereby slow the rate of vegetated marsh establishment. The ability of a smaller constructed channel or no additional dredging of the existing channel to provide full drainage of the site at lower low tides would be further assessed using hydrodynamic modeling during the detailed design phase. Pond R4 was recently restored by the South Bay Salt Ponds Restoration Project and included excavation of a shallow bayward channel. The ongoing evolution and performance of this channel would be considered when refining the restoration design of Ponds R1 and R2.

Comment CSLC-9

"The Hydrology and Water Quality (HYDRO/WQ) section of the Draft EIR states that SFCJPA has not submitted an application for the Project to the DMMO for review of proposed dredging and reuse of dredged materials. The DMMO's process requires preparation and review of a Sediment Analysis Plan (SAP), and the DMMO provides a Final Sediment Analysis Results (SAR) letter (representing completion of the DMMO process) with advisory recommendations to permitting agencies pertaining to dredging and proposed reuse or disposal of dredged materials. The lease application to the Commission must include the SAP and SAR documents demonstrating completion of the DMMO process. It is preferable for the DMMO documents and recommendations to be incorporated into the Project-level design and analyzed in the EIR. As explained in Comment 1, all Project components within the Commission's jurisdiction must include a Project-level analysis of environmental impacts in accordance with CEQA for the Commission's use of the EIR for consideration of a lease. This information will be required prior to Commission action on a lease application for the Project."

Response CSLC-9

Regarding the level of detail required for CEQA compliance, refer to **Response CSLC-1**. The remainder of this comment has been acknowledged. As noted in Draft EIR Impact HYD-1, the Project would be subject to the Dredging and San Francisco Bay Dredge Materials Management Office requirements for dredging and handling of dredged materials. No changes are indicated for the EIR.

Comment CSLC-10

> "Thank you for the opportunity to comment on the Draft EIR for the Project. As a responsible and trustee agency, the Commission will rely on the Final EIR, along with any supplemental CEQA analysis following further development/design of the Project components, when issuing a new lease. Staff requests that you consider these comments before certifying the EIR.
>
> Please send electronic copies of the Final EIR, Mitigation Monitoring and Reporting Program, Notice of Determination, approving resolution, CEQA Findings, and Statement of Overriding Considerations when they are final. Please note that federal and state laws require all government entities to improve accessibility of information technology and content by complying with established accessibility requirements. (29 U.S.C. § 794d; 36 C.F.R. § 1194.1 et seq.; Gov. Code, § 7405.) California State law prohibits State agencies from publishing on their websites content that does not comply with accessibility requirements. (Gov. Code, § 115467.) Therefore, any documents submitted to Commission staff during the processing of a lease or permit that will be posted online, including relevant CEQA documentation, must meet accessibility requirements for Commission staff to place the application on the Commission agenda.
>
> Please refer questions concerning environmental review to Jason Ramos, Senior Environmental Scientist, Jason.Ramos@slc.ca.gov or (916) 574-1814. For questions concerning Commission leasing jurisdiction, please contact Marlene Schroeder, Public Land Management Specialist, Marlene.Schroeder@slc.ca.gov or (916) 574-2320. For climate change and sea level rise-related coordination, please contact Maren Farnum, Senior Environmental Scientist, Maren.Farnum@slc.ca.gov or (916) 574-0966."

Response CSLC-10

The SAFER Bay Project Team will, after certifying the EIR and approving the Project, submit electronic copies of the documents identified in this comment. The documents will be remediated pursuant to the accessibility requirements identified in the comment. Thank you for the referrals; the SAFER Bay Project Team will contact the referenced CSLC staff as needed.

3.2.5 Midpeninsula Regional Open Space District (Midpen)

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

Comment Midpen-1

> "On behalf of the Midpeninsula Regional Open Space District (Midpen), we respectfully submit the following comments regarding the San Francisquito Creek Joint Powers Authority's (SFCJPA)

SAFER Bay Project (Project) Draft Environmental Impact Report (DEIR). Midpen is a CEQA Responsible Agency due to the need for SFCJPA to obtain Midpen's approval and authorization for property access to construct the proposed flood improvements, recreational trail realignment and reconstruction and related improvements at Ravenswood Open Space Preserve during Project implementation.

Midpen has preserved over 70,000 acres of open space land on the San Francisco Bay Peninsula. Our mission is:

> *To acquire and preserve a regional greenbelt of open space land in perpetuity; protect and restore the natural environment; and provide opportunities for ecologically sensitive public enjoyment and education.*

While much of Midpen's open space lands are along the ridge of the Santa Cruz Mountains, Midpen owns and manages Ravenswood Open Space Preserve (Preserve), which is located along the shore of the San Francisco Bay in East Palo Alto. In 2020, Midpen completed a project to develop a new 0.6-mile segment of the San Francisco Bay Trail (Bay Trail) at the Preserve. In addition, Midpen also owns a portion of Cooley Landing Park, which was developed in partnership with the City of East Palo Alto (City). Our comments are focused on the proposed Project improvements within the North of Bay Road and the proposed changes to the recreational facilities within this reach which directly affect our Ravenswood Preserve."

Response Midpen-1

This comment has been acknowledged.

Comment Midpen-2

"Levee Slope

Midpen has previously requested the implementation of broad sloped or ecotone levees wherever possible versus standard levees with more abrupt slopes or floodwalls to provide enhanced ecological benefits in support of sensitive habitats, special status species, and flood protection. Midpen acknowledges that steeper 3:1 slopes are required to be constructed adjacent to Ravenswood Open Space Preserve to limit adverse impacts on sensitive resources within the preserve. Midpen requests that additional upland habitat be developed with restoration planting on the existing Bay Trail levee (Ravenswood Bay Trail) and development of habitat islands within the marsh. Midpen requests native vegetation should extend on the land side of the levee to the greatest extent possible."

Response Midpen-2

The SAFER Bay Project does not currently include habitat restoration planting on the Ravenswood Bay Trail that is not contiguous with the proposed alignment or development of habitat islands within the marsh; such restoration is not needed at this time. The Ravenswood Open Space Preserve has experienced notable ecological revival and habitat function within the restoring marsh to date. The *Marsh Evolution and Blue Carbon Assessment* (ESA, April 2025) indicates that the area is accreting, and that the marshes may be able to adapt without significant intervention. The SAFER Bay Project Team will continue to consult with Midpen as Project development progresses, particularly regarding the breaching of the existing Bay Trail levee and related actions. The SAFER Team agrees with the incorporation of native vegetation and has strived to incorporate a self-sustaining mosaic of dense native vegetation along trail slopes (please see Appendix BIO3, Section 5 for additional details on the levee revegetation approach,

which includes areas adjacent to trails). All vegetation, including plantings on the landward side of the levee, will be consistent with United States Army Corps of Engineers guidelines for landscape planting and maintenance on levees and will incorporate native plantings.

Comment Midpen-3

"Slough Channel Replacement

To address the significant impact of filling the tidal channel at Ravenswood Open Space Preserve, Midpen requests that the site assessment, and project design and implementation include analysis measuring of the tidal flow through the existing channel and confirming whether new tidal connections established exceed the current tidal flow. The existing slough should not be blocked until the measured tidal flow exceeds the existing tidal flow. It may be difficult to provide adequate tidal flow using culverts under the existing levee. Midpen recommends that the EIR and further design of the north of the bay road segment include evaluating an alternative method of installing a raised boardwalk of similar construction to the existing boardwalk on the north end of Ravenswood Preserve and the removal of sections of the existing levee. Midpen also requests the development of a plan for continued public access to the extent possible prior to implementation of construction."

Response Midpen-3

As described in the Draft EIR (p. 2-14) and the Draft EIR's Appendix BIO3, Section 8.0 (pp. 81-93 and Figure 22), a replacement tidal channel ("Ravenswood OS New A" in Figure 22) is included in the Project to provide hydraulic connectivity to the marsh area that is currently connected to tidal exchange by a slough channel that runs along the south side of the Ravenswood Open Space, then turns north to connect the marsh landward of the embankment within the Open Space marsh. This existing tidal channel ("Ravenswood OS 1" in Figure 22) will be filled by the proposed levee footprint. This replaced hydraulic connectivity is intended to prevent the associated marsh areas from experiencing altered tidal inundation that could impair marsh vegetation and habitat function. The replacement channel would be constructed "as a first order of work to provide alternative hydraulic connectivity pathways" Draft EIR (p. 2-14) before the existing tidal channel is filled in.

As discussed in greater detail in **Response CCCR-45**, the dimensions for this channel are based on hydraulic geometry relationships for the marsh area landward of the embankment that is not already connected to the bay via an existing tidal channel along the north side of the embankment. As indicated in Appendix BIO3, Table 15, the top width of the replacement channel determined from hydraulic geometry relationships is 20 feet. This top width based on hydraulic geometry is similar to the top width of the downstream portion of the existing channel, where this channel runs parallel to the eastern segment of Bay Road that extends through the marsh to Cooley Landing. Because the replacement channel is both consistent with hydraulic geometry relationships and the existing channel, it should provide sufficient hydraulic connectivity to replace the connectivity lost by filling in the existing channel.

The replacement channel in the Ravenswood Open Space Preserve would need to cross the existing Bay Trail embankment. This would require excavating through the embankment for the channel and then constructing a bridge or natural-bottom culvert to maintain trail connectivity. The bridge or natural-bottom culvert would be sized to avoid constraining the channel or its flow as it crosses through the embankment relative to its natural size on either side of the embankment. As such, a raised boardwalk is not considered to be a necessary element of the Project.

As described under Impact BIO-2, the Project would include implementation of Mitigation Measure BIO-26: Habitat Restoration Monitoring Plan in all proposed habitat restoration activities, including replacement channels such as the one in the Ravenswood Open Space. This 10-year plan would include success criteria and associated metrics that document the 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. Repeat measurements of tidal hydrology, topography, and sedimentation documenting whether tidal wetlands are achieving target physical conditions for habitat establishment would be conducted throughout the monitoring period. Prior to Project construction, this plan would be submitted for approval pursuant to regulatory agency authorities. The repeat measurements of tidal hydrology are likely to consist of measuring tidal water levels landward of the Bay Trail embankment, to demonstrate that the variations in water levels are at least as large as those that occur within the existing channel. When both the existing channel and replacement channel are connected, the flow to provide tidal exchange to the marsh will be split between these two channels. As such, using the metric that tidal flow in the new channel should exceed the existing current tidal flow before blocking the existing channel is not a recommended metric.

Regarding trail closures, please refer to the **Global Response on Future Project Development** in Section 3.1 of this document.

Comment Midpen-4

"Snowy Plover

Midpen supports the following mitigation and finds it is substantial to offset impacts to plover habitat "*The Project proposes to offset the loss of western snowy plover habitat that could occur with levee construction and the breaching of Ponds R1 and R2, by constructing high-quality, contiguous western snowy plover breeding and foraging habitat in Pond SF2 and enhance western snowy plover habitat in Ponds R3 and SF2. (Chapter 2, P.2-10)*", Midpen would like to note that success is likely contingent on ongoing habitat enhancement and predator management actions. Midpen recommends the use of novel and creative techniques to control persistent and intelligent predators, along with techniques to reduce acclimation or learning from intelligent predators."

Response Midpen-4

The SAFER Bay Project Team agrees with this comment and has consulted with snowy plover experts and South Bay Salt Ponds Restoration Project regarding predator management.

Comment Midpen-5

"The draft DEIR states "*Seabird nesting islands would be constructed in Pond R1 concurrent with the construction of the SF2 levee (prior to dewatering SF2)*" (*Chapter 2, P. 2-56*). Historically, nesting islands have been used by shorebirds with mixed success. Midpen would like to emphasize the importance of enhancing the entirety of SF2 and R3 before disturbing ponds R1 and R2"

Response Midpen-5

The Project appreciates input regarding the optimal timing of habitat enhancement and restoration activities. Earthwork to construct new seabird nesting islands is scheduled to begin in ponds R1 and R2 prior to the construction of enhancements in Pond SF2 to provide alternative nesting island habitat for

seabirds that will lose nesting island habitat once Pond SF2 is dewatered for western snowy plover habitat enhancement. The U.S. Fish and Wildlife Service (USFWS) has requested that earthwork for the tidal marsh restoration of ponds R1 and R2 begin prior to tidal marsh impacts occurring in the South of Bay Road Reach. Therefore, the Project will be unable to accommodate Midpen's suggested timing of habitat enhancement and restoration activities.

Comment Midpen-6

> "In an effort to avoid conflicts between recreation and native species, Midpen also recommends the EIR address the use of seasonal closures or closure buffers around active plover nests."

Response Midpen-6

The Project recognizes that incubating snowy plovers may be affected by recreational activities; however, monitoring conducted by San Francisco Bay Bird Observatory has found that snowy plovers nesting near busy trails become habituated to disturbance. Snowy plovers have been observed to nest near several busy public trails in the South San Francisco Bay, including at the Ravenswood Salt Pond Complex, Hayward Regional Shoreline, and Crittenden Marsh (including Stevens Creek Shoreline Nature Study Area and NASA-ARC-owned portions of the basin)[11]. At these locations, snowy plovers were observed to display normal incubation behavior despite the presence of pedestrians and bicyclists on a trail as close as 130 feet from the nest without the presence of a borrow ditch. When a borrow ditch was present to prevent off-trail access to the nesting area, snowy plovers were observed to nest on Pond R5 as close as approximately 115 feet from a public trail.[12] Enhanced snowy plover nesting habitat in Ponds SF2 and R3 will be no closer than this distance from public trails (and at least 300 feet where trails are on top of newly built levees) and will always include an intervening borrow ditch to prevent trespass onto the pond. As such, the Project expects that snowy plovers would not be disturbed by recreational disturbance, and there would be no need to implement seasonal trail closures or nest buffers along trails.

Comment Midpen-7

> "Additionally, Midpen would like to recommend that borrow ditches remain fully watered during the breeding season to create a hydrological barrier to prevent broods from moving into recreational areas. Where borrow ditches are not present (e.g. T-zone adjacent to trail) Midpen recommends installing fencing or encouraging vegetation to serve as a physical barrier to discourage wildlife from entering unsafe recreational areas."

Response Midpen-7

Once construction is complete, the borrow ditches in ponds R3 and SF2 are intended to remain fully watered to serve as a barrier to mammalian predators and human trespass. Because the borrow ditch surrounding Pond SF2 and adjacent to the levee along the south side of Pond R3 would be widened to a minimum width of 60 feet, this would reduce the likelihood that broods swim across them. In addition, transition zones within ponds are scheduled to be seeded with short stature, moderate density grassland

[11] Pearl, B., A. Chen, and Y. Wang. 2021. *Western Snowy Plover Monitoring in the San Francisco Bay Annual Report 2020*. San Francisco Bay Bird Observatory. Milpitas, CA.

[12] Pearl, B., K. Tokatlian, and J. Scullen. 2016. *Western Snowy Plover Monitoring in the San Francisco Bay Annual Report 2015*. San Francisco Bay Bird Observatory. Milpitas, CA.

that would act as barriers for brood movement from the pond onto trails and other high disturbance areas. These design details are described in the Habitat Restoration Basis of Design Report (Appendix BIO3).

Comment Midpen-8

"The Draft EIR's Rail BMPs recommend exclusion fencing to maintain buffers around known nests or suitable habitat. Midpen would like to encourage including exclusion fencing around project areas within 700ft of suitable habitat, regardless of occupancy, and at a qualified biologist's discretion and direction. Breeding shorebird BMPs, like American avocet and black-necked stilt, include buffers or mitigations around stationary nests. Midpen recommends the EIR address a suitable distance buffer around developing broods that are identified and maintained by a qualified biologist during active work. The young of these species are precocial and are therefore very ground mobile while still unable to fly. Chicks and broods are at risk of physical impacts from both project and human activities."

Response Midpen-8

To clarify, the Draft EIR does not recommend that temporary wildlife exclusion fence be installed to maintain buffers around known California Ridgway's rail or California black rail nests or suitable habitat. Rather, Mitigation Measure BIO-25 requires that wildlife exclusion fence be installed adjacent to all habitats suitable for the salt marsh harvest mouse or salt marsh wandering shrew within a subset of reaches. This Mitigation Measure has been modified; refer to Chapter 4 of this document, *Draft EIR Revisions*. Because these small mammals and rails occur in similar tidal marsh habitats, the wildlife exclusion fence will provide protection for rails as well by preventing wildlife from entering construction areas and prevent construction activities from impacting habitat outside of the Project area. Otherwise, Mitigation Measure BIO-16 requires that Project/operation and maintenance activities aside from recreational uses and maintenance activities using light duty vehicles will not occur within 700 feet of salt marsh habitats suitable for these species within the SAFER Bay Project area during the rail breeding season unless a qualified biologist in coordination with USFWS and California Department of Fish and Wildlife determines that a reduced buffer is appropriate or protocol-level surveys determine that these species are absent from nearby areas. Therefore, it will not be necessary to erect additional wildlife exclusion fence 700 feet from suitable rail habitat throughout the SAFER Bay Project area.

The text of Mitigation Measure BIO-18 has been augmented in response to this comment; refer to Chapter 4 of this document, *Draft EIR Revisions*.

Comment Midpen-9

"Invasive Plants

Midpen would like to point out that the Congdon's Tarplant under CEPA is a 1b.1 status and the DEIR has it at a lower Threat Ranking (1b.2) -- 1b.1 indicating "seriously threatened in California) vs. ib.2 indicating "moderately threatened in California". The status of Congdon's Tarplant should be corrected within the DEIR."

Response Midpen-9

The EIR has been updated to reflect that the Congdon's tarplant has California Rare Plant Rank 1B.1 status; refer to Chapter 4 of this document, *Draft EIR Revisions.*

Comment Midpen-10

"Mitigation Measure BIO-2: Preconstruction Survey. The DEIR incorrectly states the blooming period for Congdon's tarplant is from June through October and possibly later if conducted prior to the first heavy rains of the fall. The correct blooming period is March through October, with blooming possible in April and November. The DEIR should be updated accordingly. Midpen's Natural Resource Department would like to be included in discussions for plant surveys conducted during this time frame. Midpen also urges the need to have more than one survey to better capture site specific phenology."

Response Midpen-10

We assume that the commenter meant May–October in the statement "The correct blooming period is March through October." Mitigation Measure BIO-2 has been revised to reflect the correct blooming period, with blooming possible in April and November, and to require that Midpeninsula Regional Open Space District's Natural Resources Department be included in discussions of rare plant surveys on their lands (refer to Chapter 4, *Draft EIR Revisions,* of this document). The approach in the Draft EIR is appropriate because the survey would need to be conducted in a year of near-average or above-average precipitation, or if conducted during a year with below-average precipitation, the biologist would verify that the species is flowering and detectable at a South Bay reference population. Even if tarplant is not yet flowering during the survey, the vegetative material should be identifiable as *Centromadia* sp. If during the survey the biologist detects *Centromadia* sp. in a vegetative state, the biologist will return with a second visit to determine specific phenology (i.e., *Centromadia parryi* ssp. *congdonii*).

Comment Midpen-11

"Mitigation Measure BIO-4: Compensatory Mitigation for Congdon's Tarplant mentions harvesting seed for mitigation. Midpen recommends adding language describing seed collection throughout the fruiting season to capture early, middle, and late fruiting plants, this would better represent the genetic pool of the population and conserve important genes in the population to help with rainy season fluctuations and climate adaptation."

Response Midpen-11

Mitigation Measure BIO-4 has been revised as suggested to describe seed collection throughout the fruiting season, thereby potentially conserving genes that confer resilience to interannual climatic variation (refer to Chapter 4 of this document, *Draft EIR Revisions*).

Comment Midpen-12

"Mitigation Measure BIO-4: Compensatory Mitigation for Congdon's Tarplant, A potential onsite mitigation location has been identified as an "area to be landscaped around the wetland.". Midpen would like to emphasize that a landscaped area is not appropriate method as mitigation. Landscaped areas tend to provide less quality habitat for birds and mice, since the plant spacing and planting palette is done for aesthetics rather than ecosystem function. The EIR should identify appropriate onsite mitigation locations that are not landscaped and instead function in the natural ecosystem."

Response Midpen-12

The SAFER Bay Project Team agrees that landscaped habitat is not the appropriate location for Congdon's tarplant mitigation. The word landscaped was erroneously used in this sentence and

Mitigation Measure BIO-4 has been modified to reference a tidal salt marsh-upland transition zone area that will be revegetated with native plants (See Chapter 4 of this document, *Draft EIR Revisions*).

Comment Midpen-13

"Midpen also requests the EIR include measures to control the introduction of soil pathogens, invasive, and problematic species. Pathogen and weed control should also be included in mitigation plans. Please see the attached *Guidelines for Minimizing Phytophthora Pathogens*."

Response Midpen-13

Mitigation Measure BIO-5 already includes measures to control the introduction of soil pathogens and invasive and problematic species, including Phytophthora pathogens (refer to Draft EIR page 3.4-28).

Comment Midpen-14

"Stormwater

Midpen would like to reiterate the importance of broad and regional vulnerability in upland areas related to stormwater flow, stormwater retention, and appropriate discharge opportunities. Midpen recommends the EIR incorporate ecologically mindful hydrological connections from the upland areas to the project area to convey stormwater. This can lead to the dual benefit of directing extreme high tide water that exceeds capacity for tidal marshes to absorb."

Response Midpen-14

The Project is a levee system to protect developed portions of East Palo Alto and Menlo Park from coastal flood events (e.g., the "extreme high tide water" mentioned in this comment). As such, the Project is explicitly designed to appropriately direct these events away from developed areas and contain them in the outboard tidal marshes that tolerate tidal inundation. Running parallel to the shoreline in a relatively narrow strip, the Project area does not include substantial uplands within its footprint. Rather, the Project crosses several pathways for conveying stormwater from uplands to the bay, tidal sloughs, and tidal marshes.

As discussed in Draft EIR Chapter 2, *Project Description*, and shown in Draft EIR Appendix INFRA and Table 3.11-6, the Project would protect in place, replace, or relocate existing stormwater drainage pathways along the shoreline that cross the Project area. Although the location of some of the smaller stormwater discharges may be re-directed from their current discharge point, they will still direct the same volume of stormwater to the bay, tidal sloughs, and tidal marshes.

The level of detail available regarding these features varies along the Project alignment. As discussed in **Global Response on Level of Detail: Project and Program Analysis** (Section 3.1.1 of this document), although the SFCJPA has made a good-faith effort at considering potential significant impacts on the environment that could result from implementation of the Project, including components evaluated at project- and program-levels of detail, the Draft EIR (e.g., page 1-3, Section 1.2.5, Program-Project EIR and Supplemental CEQA) acknowledges that additional environmental review may be warranted in the future as Project details are developed, and that such review would analyze any impacts particular to a specific activity or Project site that were not known and, therefore, could not have been evaluated as part of this EIR.

Comment Midpen-15

"Recreation

The DEIR states "*Then towards the northern end of the reach, the Bay Trail boardwalk would be routed over the levee*." (*Chapter 2, 2-30* This design is preferred by Midpen, if feasible.

Midpen requests that SFCJPA coordinates closely with Midpen on the design of the boardwalks, access ramps, and connection points within the Ravenswood open space preserve. Midpen is highly interested in the accessibility, aesthetics and ease of use of the connected recreational trail system."

Response Midpen-15

The SAFER Bay Project Team will coordinate closely with Midpen regarding future designs in this area.

Comment Midpen-16

"Figure 2-10 shows two ADA access ramps at the end of Bay Road. As part of the design and CEQA analysis, Midpen recommends three or five access ramps depending on the configuration. If there is a full sidewalk on either side of Bay Road, three (3) ADA access ramps are sufficient. If a full sidewalk is infeasible on each side of the road, access ramps are recommended on both sides of Bay Road and both sides of the levee and an additional access ramp at the entrance of the existing trail to the southern observation platform in Ravenswood Preserve for a total of five (5) access ramps near the end of Bay Road. Not shown on this figure is a replacement pedestrian gate which is required at the red dot in Figure 2-10 near callout view location B. The gate is a solar-powered automated pedestrian gate required by Midpen's access easement over San Francisco Public Utilities Commission lands to physical limit access during closed hours. It will also be required to replace the gate at the Ravenswood Preserve driving entrance at the end of Bay Road, which should also be an automated gate. Midpen requests the gates be added to associated figures."

Response Midpen-16

Midpen's request regarding the number and placement of access ramps has been acknowledged. The North of Bay Road Reach is currently designed at a 10-percent level. The reconstructed Bay Trail segments atop the new levees would be designed in accordance with the latest Metropolitan Transportation Commission guidance and in compliance with the Americans with Disabilities Act (ADA), with the number and placement of access-point locations to be determined during later design and in coordination with the respective landowners, including Midpen for the North of Bay Road Reach (Draft EIR page 2-14).

Midpen's comments regarding replacement of the pedestrian gate and the gate at the driving entrance to Ravenswood Preserve are also acknowledged. In response to this comment, labels for these gate replacements are now called out on Figure 2-10 (refer to Chapter 4 of this document, *Draft EIR Revisions*). The SAFER Bay Project Team will coordinate with Midpen as design progresses regarding gate replacement.

Comment Midpen-17

"Midpen recommends considering an additional alternative to improve public access on the Bay Trail by developing a public trail on the levee, north of the boardwalk. This alternative connects the main portion of Midpen's Ravenswood Preserve to the existing trail on the northern section of Ravenswood

Preserve and Don Edwards Wildlife refuge shown on Figure 2-23 as SF2 trail. The levee in this section is through disturbed areas and does not get the public closer to sensitive habitats than the existing SF2 Trail and would only require paving and three (3) ADA access ramps as additional improvements."

Response Midpen-17

The suggested alternative trail route is on property owned by the San Francisco Public Utilities Commission (SFPUC), which serves as utility corridor for water transmission and contains several SFPUC facilities. In its comment letter on the Draft EIR (Comment SFPUC2-11), the SFPUC has expressed its preference that "the trail alignment remain entirely outside SFPUC owned lands." The SAFER Bay Project Team will continue to coordinate with SFPUC and Midpen regarding potential trails throughout the Project permitting process.

Comment Midpen-18

"The EIR should address the temporary recreational impacts associated with the public's inability to access the Bay Trail, the boardwalk and pedestrian bridge, where these recreational facilities will be rerouted and reconstructed during the anticipated construction period that will be phased over multiple years from 2029 through 2033. The EIR should propose an interim public access plan that includes trail detour routes and signage during Project construction and coordination between SFCJPA and Midpen in the development and implementation of this interim access plan."

Response Midpen-18

The Draft EIR addresses temporary impacts on trails in two sections: Section 3.15, Recreation, Impact REC-1 (beginning on Draft EIR page 3.15-7), and Section 3.16, Transportation, Impact TRA-1 (beginning on page 3.16-10). Regarding trail rerouting, although no detour routing has been proposed (see Draft EIR Section 2.6.1 and page 3.15-7), Mitigation Measure TRA-1 requires the SAFER Bay Project Team to develop traffic control plans that include (among other things) identification of full and partial closures of trails, and bicycle and pedestrian detour plans where applicable. The establishment of detour routes and the protocols associated with detour routing (e.g., trail closure mechanisms, signage) would be at the discretion of the local agency that operates each trail or trail segment and would be identified in the future in consultation with agencies with jurisdiction, including Midpen. See also **Global Response on Future Project Development** in Section 3.1.2 of this document.

Comment Midpen-19

"Aesthetics

The DEIR acknowledges the potential for degraded views from Stevens and Fordham Street and that viewing opportunities towards the bay and Ravenswood Open Space Preserve would be interrupted by the proposed levee, which would be at higher elevation than the existing grade. For multiple resource analyses, a cumulative impact has been identified with mitigation measures therefore applied. Although the DEIR states the proposed improvements within North of Bay Road reach are analyzed at the programmatic level, the DEIR does not address the cumulative impacts to aesthetics for the proposed improvements within the North of Bay Road reach. SFCJPA should conduct subsequent additional analysis regarding aesthetic impacts associated with future implementation within the North of Bay Road reach once designs are developed, which is of great importance to Midpen due to its close proximity to Ravenswood Preserve."

Response Midpen-19

The Draft EIR addresses the Project's contribution to cumulative impacts on aesthetic resources, including for the North of Bay Road Reach, on page 3.2-30, and concludes that that contribution is less than cumulatively considerable and therefore less than significant.

Draft EIR Section 3.1.5 (beginning on page 3.1.4) presents the approach to the analysis of cumulative impacts used throughout Chapter 3. As indicated in that section, "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is 'cumulatively considerable'" (i.e., the incremental effects of an individual project are significant when viewed in connection with the effects of other projects [CEQA Guidelines section 15130]). Draft EIR Section 3.2, Aesthetic Resources, presents the evaluation of the Project's effects on scenic resources, scenic vistas, and other aesthetic resources. Section 3.2.3, Cumulative Impacts (page 3.2-30), presents the evaluation of cumulative impacts for aesthetic resources. The analysis considers the cumulative projects described in Table 3.1.2 (beginning on page 3.1-6) and shown on Figure 3.1-1 (page 3.1-11). For impacts on aesthetic resources, that includes cumulative projects within the North of Bay Road Reach, including the East Palo Alto Waterfront Project, which is the largest foreseeable development in the reach. The analysis concludes that the Project's contribution to cumulative impacts on aesthetic resources in the North of Bay Road Reach is less than cumulatively considerable and less than significant. That conclusion is based on the nature of the SAFER Bay Project's project-specific impact on aesthetic resources in the context of impacts of the East Palo Alto Waterfront Project. The analysis considered effects on visual character for sensitive viewer groups (recreationists and motorists). As analyzed under Impacts AES-1 and AES-2, Project implementation "would generally result in features that look similar to existing conditions and would not create a substantial visual change in the study area" (page 3.2-30). The cumulative analysis also indicates that the East Palo Alto Waterfront Project would be required to comply with height limitations and setbacks detailed in the Ravenswood Business District/4 Corners Specific Plan that are meant to reduce impacts associated with blocking scenic views and resources. The SAFER Bay Project Team is not aware of any other reasonably foreseeable projects that could potentially contribute a significant cumulative impact on aesthetic resources in the North of Bay Road Reach and proximate to the Ravenswood Open Space Preserve. Because the Project in this area has been evaluated at a programmatic level in the Draft EIR, the proposed shoreline protection features in the North of Bay Road Reach would be reevaluated as needed as design progresses to determine whether the aesthetic impacts attributable to the levee are adequately addressed in this EIR or if additional analysis would be needed pursuant to CEQA requirements.

Comment Midpen-20

> **"Traffic and Transportation**
>
> Since Project construction is anticipated to be phased over five or more years, the DEIR states, "…the proposed construction trips could increase the likelihood of conflicts between construction traffic and bicycle and pedestrian facilities at Project access locations, which would experience an increase in use during Project construction" on page 3.16-11 and the Project would implement Mitigation Measure TRA-1 (Traffic Control Plan) to mitigate these temporary construction impacts to a less-than-significant impact level. The DEIR should be revised to state that Midpen should be coordinated with in development and implementation of this Traffic Control Plan as Preserve visitors and Midpen staff who access Bay Road for Ravenswood Preserve will be impacted by this construction impact."

Response Midpen-20

In response to this comment, Mitigation Measure TRA-1 on page 3.16-12 has been revised. Please refer to Chapter 4 of this document, *Draft EIR Revisions*.

Comment Midpen-21

"Programmatic vs. Project Level Environmental Review

As typical with early design phases, substantial changes can occur as design and engineering progress. Midpen requests the SFCJPA provide Midpen regular updates and consultation as design progresses and subsequent environmental review is conducted as appropriate.

Midpen would like to continue to be included in discussions with the SFCJPA, the City, and other appropriate regulatory agencies related to proposed Project improvements within our land. Additionally, Midpen requests that the SFCJPA consult with us on further design and construction efforts affecting the Ravenswood Trail prior to the initiation of additional environmental analysis.

We strongly recommend that the SFCJPA continue working closely with the City of East Palo Alto, the San Francisco Public Utilities Commission, Midpen, other public stakeholders as well as private landowners as the project design progresses, additional environmental analysis is conducted and prior to implementation."

Response Midpen-21

This SAFER Bay Team agrees with this suggestion. The SAFER Bay Project Team and its member agencies will continue to coordinate with Midpen, the SFPUC, other regulatory agencies, stakeholders, and affected landowners. As Project design advances, meetings with key stakeholders will occur at increased frequency as designs and supplemental environmental review progress. Coordination will continue throughout implementation of Project components, including those affecting the Ravenswood Trail.

3.2.6 City of Palo Alto (Palo Alto)

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

Comment Palo Alto-1

"The Project, Strategy to Advance Flood Protection, Ecosystems and Recreation along San Francisco (SAFER) Bay, would be located within multiple parcels within the City of East Palo Alto, Menlo Park, and Redwood City on both publicly- and privately-owned property. The Project includes actions within the Don Edwards National Wildlife Refuge (Refuge), including Refuge-managed land in Laumeister and Faber Tract Marshes, which are not located within the City of Palo Alto's jurisdiction, but that are owned by the City of Palo Alto (specifically APNS 063-580-090 and 063-580-100). The City understands that the SAFER Bay Project is intended to provide resiliency to coastal flooding and sea level rise in East Palo Alto and Menlo Park as well as to enhance and protect habitat and to expand recreational opportunities. Construction of the Project is proposed to occur in eight phases. Improvements within the South of Bay Road reach, which would be partially located on

land owned by the City of Palo Alto, are proposed to begin in 2030. The EIR will consider the creation of broad, gently sloped tidal marsh-upland transition zones and trail modifications that elevate the Bay Trail, reducing the trail's exposure to flooding. Overall, the project includes more than 1,000 acres of habitat restoration, enhancement, and creation (more than double what was originally projected for the project) and 1 to 2.5 miles of new or modified trails.

Overall, the City wants to express its support for the use of ecotone levee designs wherever feasible and applauds the SFCJPA for incorporating extensive habitat restoration into the design. Additionally, the City supports efforts to improve bicycle-pedestrian connections and to provide improved recreational opportunities. The City of Palo Alto provides the following more specific comments in response to the Draft Environmental Impact Report."

Response Palo Alto-1

This comment, which summarizes the City's understanding of and support for the Project, has been acknowledged.

Comment Palo Alto-2

"Clarify the proposed surface material for the Bay Trail along the South of Bay Road reach. The City understands that all portions of the Bay Trail that are currently paved will be replaced in kind. Because this is an important regional bicycle trail connection, the City supports improving the Bay Trail with paving where feasible. The plan appears to improve the trail by widening the width of the trail, consistent with design standards set forth in the California Manual on Uniform Traffic Control Device Standards for shared use paths. The City is supportive of this change. However, the City seeks clarity on the proposed surface materials in areas that are not currently paved. Any proposed surfacing material must be ADA compliant."

Response Palo Alto-2

As indicated in Draft EIR Section 2.4.1, Proposed Shoreline Protection, Habitat Improvement, and Recreation Features, the reconstructed portions of the Bay Trail along the new levee tops would be paved; would include signage, viewing points, benches, and access points; and would be designed in accordance with the latest Metropolitan Transportation Commission guidance and in compliance with the Americans with Disabilities Act (ADA).

Comment Palo Alto-3

"The EIR states that infrastructure/trail improvements would be maintained by member agencies. The City seeks clarity regarding additional maintenance responsibilities, if any, that may be incurred as a result of the proposed project. In particular, the new levee may be susceptible to settlement as well as undermining of the Bay Trail due to ground burrowing rodents (e.g. ground squirrels) given the new earthen berms. The response indicates the City of East Palo Alto has accepted the long- term maintenance of the levees. However, it's not clear how that was transferred or agreed upon between San Mateo County, City of East Palo Alto, and Palo Alto. A conceptual maintenance agreement outlining maintenance responsibilities should be finalized prior to finalizing the design and prior to City approvals for work on Palo Alto-owned land. A period of routine inspections should be identified for improvements on infrastructure in addition to those proposed for habitat areas."

Response Palo Alto-3

Draft EIR Section 2.7 describes operation and maintenance responsibilities for Project infrastructure and trails. CEQA requires evaluation of environmental effects of operation and maintenance but does not require execution of final interagency maintenance agreements prior to EIR certification. Maintenance responsibilities for levees, trails, and related infrastructure would be formalized through subsequent agreements among the SAFER Bay Project Team and with relevant jurisdictions prior to construction and/or operation; the text in Section 2.7 has been revised to add this clarification (refer to Chapter 4 of this document, *Draft EIR Revisions*). This clarification does not change the impact analysis or conclusions. Routine inspection and maintenance activities would be conducted consistent with applicable flood protection standards and permit requirements.

Comment Palo Alto-4

> "The City previously recommended that the proposed Bay Trail be designed in a manner that helps to prevent issues with ground burrowing rodents by using an integrated pest management approach in its design. It is unclear whether this recommendation was considered or incorporated into the proposed project."

Response Palo Alto-4

At this stage in Project development, the proposed levee design incorporates features to minimize burrowing rodents. Safely minimizing burrowing rodents in levee design for Federal Emergency Management Agency accreditation involves a combination of structural barriers as well as ongoing operation and maintenance actions (described generally in Draft EIR Section 2.7, pages 2-63–2-69). The SAFER Bay levee has incorporated a structural barrier in the form of a geogrid layer and use of materials that will discourage burrowing where possible; these design features must be accompanied by regular maintenance. The City's request that such maintenance activities include integrated pest management[13] has been acknowledged and will be considered as maintenance actions are more fully developed in the future. As discussed in **Response Palo Alto-6**, Draft EIR Appendix BIO3, Section 5 includes additional details on the levee revegetation approach, and the vegetation maintenance plan will be further developed in Project's future Habitat Restoration and Monitoring Plan.

Comment Palo Alto-5

> "The City has reviewed Appendix INFRA and requests that the applicant prepare and submit an ALTA survey for the Palo Alto owned parcels. The map should include existing easements and utilities to determine what existing infrastructure may need to be relocated or access rights accounted for as part of the project. This may also clarify who has maintenance responsibility along the trail for existing infrastructure and if new easements would be required for any relocation. It is not clear that all existing utilities within Palo Alto lands have been accommodated in the proposed project."

Response Palo Alto-5

Appendix INFRA identifies known utilities and encroachments within the Project area based on investigations conducted to date by the SFCJPA's design team. The City of East Palo Alto's consultant team has performed topographic and boundary surveys for the City reaches currently in design.

[13] Integrated pest management is an approach to controlling pests in a manner that economically manages pest damage with the least possible hazard to people, property, and the environment.

Additional detailed surveys, easement verification, and utility coordination will occur during final design and permitting. The SFCJPA welcomes any additional records regarding existing utilities, boundary surveys, or other easements or encroachments that the City may have to facilitate this process.

Comment Palo Alto-6

> "Vegetation management along the current Bay Trail in the South of Bay Road reach has been challenging because the areas adjacent to the trail are filled with tall, invasive weeds (e.g. fennel, mustard, Lepidium). The EIR should discuss what type of vegetation is proposed adjacent to the trail. The City appreciates the SFCJPA acknowledging our recommendation that the SFCJPA consider an integrated design approach to weed management. Specifically, considering dense, native plants along the trail using native plant species that can outcompete the invasive species and require less maintenance (i.e. won't require mowing or grow into the trail). If the project involves planting plants right up to the edge of the trail (within 3') the design should consider proposing dense, native low-growing plants (e.g. Frankenia, marsh heather, salt grass, etc.). The City understands that the current plans are not designed to this level of detail and looks forward to continued coordination as the SFCJPA continues to develop the project plans."

Response Palo Alto-6

The SAFER Bay Project Team agrees with this comment and has strived to incorporate a self-sustaining mosaic of dense native vegetation along trail slopes. Please see Appendix BIO3, Section 5 for additional details on the levee revegetation approach, which includes areas adjacent to trails. The revegetation approach and vegetation maintenance plan will be further developed in the Project's future Habitat Restoration and Monitoring Plan, to be prepared for Bay Restoration Regulatory Integration Team approval during the regulatory permitting process. The levee revegetation approach presented in Appendix BIO3, Section 5 is intended to establish dense native cover to help outcompete non-native weeds, and incorporates mowing-tolerant species to facilitate weed control. This comment does not raise specific issues concerning the adequacy or accuracy of the EIR's discussion of physical environmental impacts.

Comment Palo Alto-7

> "Clarify whether there is proposed irrigation to establish the plants and, if so, the source of the irrigation."

Response Palo Alto-7

As indicated on Draft EIR page 3.17-16, following construction, the Project *as a whole* would temporarily require up to 73 million gallons of water annually for irrigation of grass cover on the levee slopes; the amount of irrigation water needed within the South of Bay Road Reach would be some fraction of this amount. As indicated on page 44 of Appendix BIO3, irrigation is assumed to occur for 3 years. As the grass cover is established, the amount of irrigation required is anticipated to decline because of United States Army Corps of Engineers requirements. Please see Section 3.9.6 of Appendix BIO3 for details on the irrigation approach. Sources of irrigation water are identified in Draft EIR Section 3.17.1 and include East Palo Alto, Menlo Park, and Redwood City. The specific source of irrigation water at a given location, including availability of recycled water sources, will be confirmed during later design stages. As described in Draft EIR Section 3.17.1, East Palo Alto, Menlo Park, and Redwood City procure water supplies primarily through the San Francisco Public Utilities Commission Regional Water System.

East Palo Alto, Menlo Park, and Redwood City estimate that available supply exceeds projected water demand through 2045.

Comment Palo Alto-8

> "Table 2-3 and Figure 2-8 indicate that the existing trail grades range from 4.5 to 18 feet. It's not clear where the 18-foot grade is in relation to the South of Bay Road section, since most of the trail is closer to 4.5 feet. The table also indicates that the top of floodwall will be 16.5 feet. It's not clear why the floodwall would be 1.5 feet lower than the trail. If the top of the floodwall is not the concrete pile cap, clarify the exhibits to show where the top of the floodwall is located. In addition, provide the height of the exposed portion of the concrete cap wall on the cross section."

Response Palo Alto-8

The proposed levee would adjoin the SFCJPA's "Reach 1" levee along San Francisquito Creek, near the existing O'Connor Pump Station. Please refer to the design drawing presented in **Appendix RTC-2** to better understand the relative heights of existing grade, and the proposed heights of the levee and floodwall. The numbers at the bottom of the design drawing (presented vertically) depict the height of the levee (smaller number) and floodwall (larger number).

Comment Palo Alto-9

> "Verify if a railing would be needed along the concrete cap for safety."

Response Palo Alto-9

A railing would not be needed on the concrete cap, which would be on the bayward side of levee, given the slope of the transition zone (3:1 horizontal to vertical).

Comment Palo Alto-10

> "Provide an analysis of the impact to the groundwater table and the unconfined aquifer as a result of 40-foot-deep sheet piles. Describe the impact to the unconfined aquifer on the residential side because of these barriers. Similarly, describe the impact to the groundwater table on both sides of the sheet pile in the future because of sea level rise."

Response Palo Alto-10

Please refer to **Response BCDC-30**, which provides a comprehensive response on this topic. See also revisions to the text in Section 4.2.3, which clarify the function of the sheet pile walls.

Comment Palo Alto-11

> "Provide an analysis of the transfer of flood risk to the adjacent communities. The analysis should include the change in elevation between the proposed top of floodwalls and the existing San Francisquito Creek levee, outside of the work area. The analysis should clearly demonstrate how the project will not transfer the flood risk onto Palo Alto because of floodwalls or provide mitigation that prevents the transfer of risk."

Response Palo Alto-11

The southernmost point of the proposed shoreline protection levee would be the same elevation as and connect with the northeastern end of the existing levee along San Francisquito Creek. Draft EIR Impact HYD-3 discusses whether the Project would create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or impede or redirect flood flows. Regarding transfer of flood risk to adjacent communities due to the addition of shoreline protection, coastal hydraulics modeling indicates that the potential extent and magnitude of change to the bay's coastal hydraulics caused by protecting a segment of the shoreline (including segments longer than the Project), are limited (Draft EIR page 3.11-43**)**. Because the Project would prevent coastal flooding for a shorter section of the shoreline than evaluated in coastal hydraulics studies,[14] displacement of water due to the presence of the Project would not substantially affect surrounding bay water surface elevations during a coastal flood, or result in additional areas becoming inundated.

Comment Palo Alto-12

> "If Archeological or Tribal Cultural Resources are uncovered during construction on property owned by the City of Palo Alto, the City shall be notified of the discovery. Any proposed mitigation for the South of Bay Road reach, which is partially proposed on land owned by the City, should specify this requirement. The City recommends modifying Mitigation measures CUL-3 and CUL-4 to clarify that the property owner shall be contacted in the event of a discovery to address this comment."

Response Palo Alto-12

Mitigation Measures CUL-3 and CUL-4 have been revised accordingly. Refer to Chapter 4 of this document, *Draft EIR Revisions*.

Comment Palo Alto-13

> "The City of Palo Alto appreciates the SFCJPA's acknowledgement that you will obtain an FAA 7460 permit from the FAA. The City also notes that as the design is refined the SFCJPA shall continue to consider applicable aviation safety considerations in compliance with the California Airport Land Use Planning Handbook published by the California Department of Transportation."

Response Palo Alto-13

This comment has been acknowledged for use in future permitting.

Comment Palo Alto-14

> "The City requests that the SFCJPA continue to coordinate with the City of Palo Alto throughout more detailed design phases to ensure that project improvements that impact City of Palo Alto owned-parcels, sustain or enhance recreational and bicycle-friendly access connecting to the Palo Alto Baylands, enhance environmental conservation, and to ensure operational efficiency and best practices. Additionally, continued coordination is essential as this project could affect the analysis and conclusions of the City's Sea Level Rise Adaptation Plan project. City of Palo Alto has future projects that may impact existing wetlands along the Baylands. The City would like to continue

[14] Hummel, M.A., and M.T. Stacey, 2020. "Assessing the influence of shoreline adaptation on tidal hydrodynamics: the role of shoreline typologies." *Journal of Geophysical Research: Oceans*: 126, e2020JC016705. Available online at https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2020JC016705.

discussions regarding restoration credits that the SAFER project could potentially provide for the City's future projects."

Response Palo Alto-14

This comment has been acknowledged. The SAFER Bay Project Team and its member agencies will continue to coordinate with the City of Palo Alto as the design advances.

Comment Palo Alto-15

"Because the project is not located within the City of Palo Alto's jurisdiction, it is not anticipated that permits from the City would be required. However, Council approval would be required for any proposed encroachments or easements to construct and maintain flood infrastructure on the City's property. Additionally, the City recommends coordinating with the Palo Alto Airport regarding permits that may be required from the FAA for work within the vicinity of the Palo Alto Airport."

Response Palo Alto-15

Draft EIR Table 2-1 (page 2-70) indicates that Palo Alto City Council approval would be needed for any proposed encroachments associated with the Project (based on in from City staff during scoping). Council approval for encroachments or easements on City-owned property, as required, will be obtained prior to construction. The SAFER Bay Project Team will coordinate with the Palo Alto Airport, as applicable. Note that Impact HAZ-4 (Draft EIR page 3.10-26) evaluates the potential for the Project to result in a safety hazard or excessive noise for people residing or working in the Project area and concludes that impacts were less than significant based on the Project's construction and operation characteristics. This comment does not affect the environmental analysis or conclusions of the Draft EIR.

3.2.7 San Mateo County Transit District (SamTrans)

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

Comment SamTrans-1

"Given overlap with SamTrans Dumbarton Busway Feasibility Study, recommend continued communication with project teams to share findings, ensure project compatibility."

Response SamTrans-1

The SAFER Bay Project Team is in communication with SamTrans and will continue coordination as the Project progresses.

Comment SamTrans-2

"Misidentification of the existing railroad in the study area as Southern Pacific Railroad. The right-of-way is owned by San Mateo County Transit District (SMCTD or SamTrans) from Dumbarton Wye to Alameda County. Please relabel as such as needed."

Response SamTrans-2

Text throughout the EIR, including labels on Figures 2-10 and 2-13, has been revised to reflect that the railroad right-of-way is owned by SamTrans. Refer to Chapter 4 of this document, *Draft EIR Revisions*.

Comment SamTrans-3

> "Environmental Settings Table 3 - Please adjust Project #7 Name to "Dumbarton Busway Feasibility Study"; no change needed to project sponsor, description. Please update status to read "Study underway with anticipated completion by early 2027.""

Response SamTrans-3

Table 3.1-2 has been revised according to Comment SamTrans-3. Refer to Chapter 4 of this document, *Draft EIR Revisions*.

Comment SamTrans-4

> "SamTrans listed services - Misidentify Dumbarton Express (DBX) as a SamTrans service route. This is a joint service provided by partner transit agencies and operated by AC Transit - SamTrans Route 397: misidentified as an express route. This is a cross-county, lifeline "Owl" service that operates overnight - no mention of microtransit service Ride Plus (https://www.samtrans.com/riderinfo/ride-plus) in the existing Transit Service section. This is an on-demand public transit service provided in the project area"

Response SamTrans-4

The comment correctly identifies an error in the description of existing transit service relevant to the Project, and the text has been revised accordingly. Refer to Chapter 4 of this document, *Draft EIR Revisions*.

3.2.8 San Francisco Public Utilities Commission (SFPUC)

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

Comment SFPUC1-1

> "SFPUC is requesting for an extension to the January 23, 2026 deadline to thoroughly review the DEIR and provide feedback."

Response SFPUC1-1

The SFCJPA responded to the SFPUC indicating that the comment period is already longer than the required 45-day period, and that it cannot be extended further due to grant deadlines.

Comment SFPUC2-1

"The City and County of San Francisco owns land within the Project area, known as the SFPUC Property at Ravenswood. This land and its facilities and infrastructure are operated and maintained by the San Francisco Public Utilities Commission (SFPUC). For the purposes of this letter, the SFPUC Property at Ravenswood is referred to as "SFPUC property".

The SFPUC Property within the Project area is located in the City of Menlo Park and the City of East Palo Alto, south of the Dumbarton Bridge and along San Francisco Bay with an entrance and egress on University Avenue. The SFPUC property connects several water transmission pipelines within the Project area (Bay Division Pipelines Nos. 1, 2, and 5). Additional SFPUC assets at this location include the Bay Tunnel. The SFPUC property also includes the land southeast of Pond SF2 and the Peninsula Sportsman's Club remediation site.

Background

The SFPUC manages over 150 miles of pipeline right-of-way (ROW) in three San Francisco Bay Area counties. This ROW and associated assets are part of the Hetch Hetchy Regional Water System providing water to approximately 2.7 million customers, and the SFPUC property is an integral part of the SFPUC ROW lands. The SFPUC monitors and protects its lands by reviewing proposed projects and activities that may affect SFPUC lands and infrastructure for consistency with SFPUC policies and plans.

The primary purpose of the SFPUC's ROW lands is to serve as utility corridors for water transmission and are managed for the delivery, operation, maintenance, and protection of its drinking water supply system. Secondary uses of SFPUC ROW lands may be permitted only if those uses do not in any way interfere with, endanger or damage existing or future operations or the security of those systems."

Response SFPUC2-1

This comment has been acknowledged.

Comment SFPUC2-2

"Since the SFPUC has a land right within the Project site that gives it discretionary authority, the SFPUC should be listed as a responsible agency pursuant to the California Environmental Quality Act (CEQA). If staging or other construction activities are proposed on SFPUC fee owned property, then the SFPUC would be a responsible agency under CEQA. This should be stated in the environmental review document."

Response SFPUC2-2

As stated on page 2-69 of the Draft EIR in the Project Description: "Responsible and trustee agencies are expected to use this EIR in their decision-making. **Table 2-11** presents a summary of anticipated permits and authorizations, organized by agency." Table 2-11 identifies the City and County of San Francisco as a local agency, including authorizations related to construction of flood protection and related improvements on City-owned property managed by the SFPUC.

Comment SFPUC2-3

"The SFPUC understands that the Draft EIR analyzes the project on SFPUC parcels ("Dumbarton Approach Reach") on a programmatic level due to the conceptual nature of the design for this area or reach. Further project-level environmental review may be required under CEQA once the project details for the Dumbarton Approach Reach are fully known. Depending on whether the project details could result in new significant impacts, the project-level environmental review would result in either an EIR addendum or a subsequent or supplemental EIR."

Response SFPUC2-3

The comment is correct that the level of detail at which the levee segment crossing SFPUC property is evaluated is programmatic and that further environmental review may be required. As explained on page 2-5 of the Draft EIR in the Project Description:

> "Changes may occur to the program-level components described and evaluated as design progresses due to factors such as funding, land acquisition, permitting requirements, site-specific physical constraints (e.g., utilities, geotechnical conditions, or right-of-way access), or other modifications….SFCJPA or its member agencies will review changes to the Project and conduct supplemental evaluations pursuant to the California Environmental Quality Act as warranted."

Please refer to the **Global Response on Project and Program Analysis** Section 3.1.1 of this document for additional information related to additional environmental review.

Comment SFPUC2-4

"The attached SFPUC land use policies should be included in the land use analysis and general analysis of the Draft EIR. Land use and planning analyses under CEQA generally consider the compatibility of a project with neighboring areas, change to or displacement of existing uses, and consistency of a project with relevant local land use policies. The magnitude of land use conflicts or compatibility issues depends on the extent to which a project physically divides an established community or conflicts with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect such that an adverse impact on the environment occurs."

Response SFPUC2-4

The Draft EIR evaluates the Project's potential to result in significant land use impacts pursuant to the significance thresholds described in Section 3.12.3 (beginning on page 3.12-11). The Draft EIR contains general discussions of consistency with plans and policies pursuant to CEQA Guidelines section 15125(d), which addresses requirements for an EIR's environmental setting description and requires discussion of applicable general plans, specific plans, and regional plans (e.g., air quality management plans). Policy conflicts do not, in and of themselves, indicate a significant environmental effect within the context of CEQA environmental review, in that the intent of CEQA is to determine physical effects associated with a project.

Regarding consistency with the *SFPUC Interim Water Pipeline Right of Way Use Policy for San Mateo, Santa Clara, and Alameda Counties* [Interim Land Use Policy], as indicated in the Draft EIR (page 3.1-3):

> Land use plans typically contain numerous policies emphasizing differing legislative goals, and an interpretation of consistency requires a balanced understanding of relevant policies. The board, commission, or city council that adopted the plan determines the meaning of such policies and how individual projects satisfy those policies at the time it considers approval of a project. Whether the proposed Project is consistent with a plan would be determined at the time of Project approval by the agency charged with making that consistency determination. In each case, the approving or reviewing agency will consider any potential inconsistencies between the Project and adopted plans or policies in the context of applicable objectives and policies and will determine consistency based on a balancing of relevant policies as part of the approval process.

Consistent with the above, the SFPUC will determine application of the Interim Land Use Policy at the time it considers approvals for the SAFER Bay Project. The Interim Land Use Policy indicates that *Through our formal Project Review and Land Use Application and Project Review process, we may permit a secondary use on the ROW if it benefits the SFPUC, is consistent with our mission and policies, and does not in any way interfere with, endanger, or damage the SFPUC's current or future operations, security or facilities.* In this case, a benefit to the SFPUC is the protection of its infrastructure from flooding. The SAFER Bay Project Team will apply for the necessary approvals from the SFPUC, which presumably will resolve any potential inconsistencies with SFPUC policies.

Comment SFPUC2-5

"Peninsula Sportsmen's Club

The former Peninsula Sportsman's Club is located within part of the Project boundaries, per Figure 2-26. The Peninsula Sportsmen's Club was historically used for skeet- and trapshooting from 1939 to 1994, resulting in the contamination of soils with hazardous materials from the type of shot used by the club members. The Peninsula Sportsmen's Club declared bankruptcy and abandoned the site, leaving the SFPUC, as the property owner, responsible for the remediation of the contaminated site under an order from the San Francisco Bay Regional Water Quality Control Board (RWQCB). Contaminants in the site soils included lead, arsenic, antimony, and polynuclear aromatic hydrocarbons in the former firing ranges and in the adjacent salt pond. In 2009, the SFPUC implemented the Baylands Recovery Project Final Phase 1B Remedial Action Firing Range East Cap which completed the remediation work with the installation of a clay cap over the firing range.

Damage to the clay cap could potentially result in the release of hazardous materials into the environment. Therefore, the SFPUC strongly recommends identifying an alternative location for staging and construction laydown activities. Construction near or any alteration of the clay cap will require extensive coordination with both the SFPUC and the RWQCB.

Please consider relocation of the proposed levee farther east and south of the remediation site to avoid construction on or near the clay cap. Another alternative would be to install a flood wall in this stretch, instead of a levee, which would have a smaller footprint and more easily avoid disturbing the clay cap. These alternatives should be included and analyzed in the final EIR."

Response SFPUC2-5

The SFCJPA acknowledges the location of the former Peninsula Sportsmen's Club within the Project boundary, is aware of the work that the SFPUC performed to remediate the former Peninsula Sportsman's Club, and the presence of the clay cap, and recognizes the environmental constraints associated with the remediated firing range area. As noted, the SFPUC completed remediation under the oversight of the San Francisco Bay Regional Water Quality Control Board (RWQCB), culminating in the installation of an engineered clay cap designed to contain residual contaminants, including lead, arsenic, antimony, and polycyclic aromatic hydrocarbons (PAHs). Protection of this cap remains a critical design and construction consideration.

The Project team has evaluated multiple shoreline protection and construction staging approaches in this area. As design progresses, additional refinements may be made to eliminate the old Sportsman's Club remediation site. The proposed use of this area as a potential laydown area was assumed to be with appropriate mechanisms such that the integrity of the clay cap is not compromised (e.g., placement of a geotextile over the clay cap with gravel or Class 2 AB being placed over the geotextile). The SAFER Bay Project Team will discuss options with the SFPUC, including potential alternative locations.

As discussed in **Response CCCR-61**, and consistent with the Draft EIR Impacts HAZ-1 and HAZ-3 analyses, the SFCJPA would not be allowed to conduct any activities currently prohibited by existing land use covenants (including disturbing soil below existing caps) without Department of Toxic Substances Control or San Francisco Bay RWQCB approval. Land use covenants "run with the land," meaning they automatically apply to activities by future landowners.[15] In addition, implementation of Mitigation Measures HAZ-1 (Health and Safety Plan) and HAZ-2 (Soil Management Plan) would reduce the potential impact on the public or the environment, including by requiring soil testing and development of 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 prior to excavation in areas previously documented as having contaminated soil or groundwater.

The entry for Peninsula Sportsmen's Club in Draft EIR Table 3.10-1 has been clarified to include reference to the clay cap as part of the site's remediation (refer to Chapter 4 of this document, *Draft EIR Revisions*).

Comment SFPUC2-6

"SFPUC's Existing and Future Use of the Site

The SFPUC's multiple parcels would be bisected by the Project's proposed levee design, which could limit access for future SFPUC activities and projects. For example, SFPUC plans include removing the inactive pipes and pipe bridge, including the portion extending beyond the shoreline into San Francisco Bay. The SFPUC has already developed a construction approach for this work, however, with a 3:1 slope, the proposed levee would be too steep for heavy equipment and construction vehicles to navigate. The SFPUC requests that the project team revise the design to provide adequate and reliable access for future SFPUC construction activities. Additionally, the project team must

[15] Land use covenants of this type run with the land pursuant to Civil Code section 1471 and/or Health and Safety Code sections 25202.5, 25355.5, or 25395.99 and shall continue in perpetuity unless modified or terminated in accordance with applicable law (California Code of Regulations title 22, section 67391.1[d]).

ensure that the levee structure can support the heavy loads associated with pipeline removal operations."

Response SFPUC2-6

Operation and maintenance access roads will be incorporated into future design, in consultation with the SFPUC, to allow SFPUC access to its facilities.

Comment SFPUC2-7

"The existing site currently drains toward San Francisco Bay; however, the proposed levee would alter drainage patterns. The current levee design would likely cause stormwater to back up on the landward side of the levee. As part of routine maintenance and inspections, the SFPUC Water Supply and Treatment Division periodically dewaters pipelines at the Ravenwood Valve House and will need to install new piping and associated infrastructure to adequately dewater the pipes. Therefore, the existing SFPUC dewatering culvert must remain accessible and functional, or an acceptable alternative must be provided by the Project."

Response SFPUC2-7

Thank you for the information regarding the SFPUC's stormwater management and dewatering activities and the need to maintain functionality of these existing facilities. At this stage, the Project design in this area is at approximately 10 percent and has not yet incorporated detailed stormwater drainage considerations or the requirements associated with SFPUC stormwater management and pipeline dewatering operations.

As design progresses in this reach, the SAFER Bay Project Team or its member agency (Menlo Park) will coordinate closely with SFPUC to clarify both existing stormwater management and dewatering needs and how continued operations of these systems can be appropriately integrated with the Project. This coordination will identify feasible approaches to maintain access and functionality of both existing systems or develop an acceptable alternative solution that satisfies SFPUC's operational requirements. Once specific changes to SFPUC's stormwater management and dewatering systems are sufficiently developed, the SAFER Bay Project Team or its member agency (Menlo Park) would determine and implement the appropriate level of supplemental review under CEQA.

Comment SFPUC2-8

"The Project will need to return to SFPUC Project Review as it continues to move forward. We look forward to working with your team to address the issues raised in this letter and the attached table.

If you have any questions or need more information, please contact Elton Wu, Environmental Compliance and Land Planner, at ewu@sfwater.org or (415) 971-7657."

Response SFPUC2-8

This comment has been acknowledged. The SAFER Bay Project Team and its member cities will continue coordination with SFPUC and return the Project to SFPUC Project Review staff as designs progress.

Comment SFPUC2-9

The comment is regarding Draft EIR Section 1.3, page 1-5, Table 1: Additional Public Outreach Regarding SAFER Bay Project.

> "Table 1-1 should include the two Project Review meetings held for the Project with the SFPUC on 5/3/23 and 10/15/25."

Response SFPUC2-9

Draft EIR Table 1-1 in Chapter 1, *Introduction*, has been updated as suggested. Refer to Chapter 4 of this document, *Draft EIR Revisions*, for text changes.

Comment SFPUC2-10

The comment is regarding the following text from Draft EIR Section 2.2, page 2-3: "The Project also includes actions within land owned by the State of California…San Francisco Public Utilities Commission (SFPUC),…"

> "Please revise as follows: *The Project also includes actions within land owned by the State of California…City and County of San Franciso (managed by the San Francisco Public Utilities Commission or SFPUC),…*"

Response SFPUC2-10

The subject text on Draft EIR page 2-3 has been updated as suggested. Refer to Chapter 4 of this document, *Draft EIR Revisions*, for text changes.

Comment SFPUC2-11

The comment is regarding the following text from Draft EIR Section 2.3.2, page 2-3: "Expand opportunities for recreation and community connectivity in collaboration with the Bay Trail"

> "As shown in Figure 2-5 no trail is currently proposed through SFPUC property, and the SFPUC maintains its preference that the trail alignment remain entirely outside SFPUC owned lands. Trespassing is an active and persistent challenge in the area, and the SFPUC continues to devote significant effort to managing these issues. The SFPUC recommends including a Project alternative in this EIR with the levee alignment farther from SFPUC property to reduce risk of trespass associated with increased recreational use of the area."

Response SFPUC2-11

The SFPUC's preference that no public trail be proposed on their property has been acknowledged. As indicated in the comment, no trails are proposed across SFPUC property.

Regarding the recommendation that the EIR include a Project alternative "with the levee alignment farther from SFPUC property to reduce risk of trespass," the EIR screened alternatives pursuant to CEQA criteria (feasibility, ability to meet most of the Project's objectives, and ability to reduce significant impacts on the physical environment); refer to Section 4.6 in Chapter 4 of the Draft EIR, *Alternatives*, for details. The SAFER Bay shoreline protection alignment must cross SFPUC property to achieve its objectives.

Comment SFPUC2-12

The comment is regarding the following text from Draft EIR Section 2.3.2, page 2-3: "Minimize future maintenance requirements."

> "What does this mean? Please explain or provide examples."

Response SFPUC2-12

This comment is on a Project objective. In this context, *Minimizing future maintenance requirements* means designing the Project to incorporate durable and nature-based methods, and emphasizing choices that will avoid active mechanical measures where practicable and can be maintained by common practices (e.g., vegetation management). Minimizing future maintenance requirements does not mean elimination of future operation and maintenance activities.

Comment SFPUC2-13

> "The SFPUC retains the right to disallow any use that, at the SFPUC's sole discretion, may interfere with, endanger or damage existing or future SFPUC operations, security, or facilities. Among other restrictions, the SFPUC prohibits any use on its ROW property that:
>
> 1. Satisfies an open space or other entitlement requirement for a project.
> 2. Would conflict with the SFPUC's legal obligations to the SFPUC remediation area.
> 3. Would create an unreasonable burden for the SFPUC (or its ratepayers) in the use of its property for utility purposes. The SFPUC reasonably anticipates that its property in the City of Menlo Park will be available for future SFPUC utility infrastructure and capital projects.
> 4. Is otherwise inconsistent with SFPUC plans and policies."

Response SFPUC2-13

This comment has been reviewed and acknowledged.

Comment SFPUC2-14

> "The levee bisects multiple SFPUC parcels, making the land unusable. The SFPUC reasonably expects the full use of its ROW land."

Response SFPUC2-14

The alignment was selected based on the location of existing SFPUC facilities and facilities that are planned to be retained and will be protected in the future by the SAFER Bay Project.

Comment SFPUC2-15

The comment is regarding the following text from Draft EIR Section 2.4.2, page 2-35: "This reach would protect active SFPUC infrastructure, and it is assumed that abandoned SFPUC infrastructure within the construction corridor for the levee would be demolished as part of the Project."

> "What does How much of the abandoned infrastructure would be demolished? Would it include the portion that extends beyond the shoreline and over the bay? Will it be removed from the site? If any portion of the abandoned infrastructure remains after the construction of the proposed project, the new levee will need to provide construction access."

Response SFPUC2-15

The statement is based on the SAFER Bay Project Team's current understanding from SFPUC for facilities that have been retired and/or planned for demolition. Accordingly, the Project proposes to remove the portion of the aboveground pipeline that conflicts with the levee and operation and maintenance corridor. The SAFER team will work with SFPUC to refine our understanding of SFPUC's site needs; operation and maintenance access for SFPUC facilities and property waterward (east) of the levee would be provided (see **Response SFPUC2-6**).

Comment SFPUC2-16

> "Figure 2-5 shows no proposed trail through SFPUC property. Regarding the SF2 Trail, the DEIR states that the "...southern portion of the existing SF2 Trail would terminate at the new levee"…. At a meeting with the SFPUC on 10/15/25, the project proponents expressed a desire to construct a trail on top of the proposed levee through SFPUC property. Please be advised that the SFPUC strongly prefers the existing trail alignment shown in Figure 2-5 that is located adjacent to, but outside of the property boundary of the SFPUC's property."

Response SFPUC2-16

This comment regarding avoidance of a trail through SFPUC property has been acknowledged.

Comment SFPUC2-17

The comment is regarding the following text from Draft EIR Section 2.4.2, page 2-35: "Proposed Reach Conditions Infrastructure: Refer to Appendix INFRA for a list of utilities and encroachments that have been identified within the reach and proposed actions to address each. This reach would protect active SFPUC infrastructure, and it is assumed that abandoned SFPUC infrastructure within the construction corridor for the levee would be demolished as part of the Project. An existing stormwater pump station north of SR 84 and appurtenant structures would be modified."

> Please note in this section that the planned demolition of abandoned SFPUC infrastructure includes the section of pipeline that extends beyond the shoreline and into the bay. For more information, please contact Eric Choi, SFPUC Engineer, at echoi@sfwater.org.

Response SFPUC2-17

This comment has been acknowledged.

Comment SFPUC2-18

The comment is regarding the following text from Draft EIR Section 2.7, page 2-63: "The SBSPRP and/or Refuge would be responsible for monitoring and maintenance of proposed restoration areas. Maintenance activities would be completed by existing staff; no new staff would be hired for Project operation and maintenance."

> "Trespassing remains an active and persistent challenge in the area. SFPUC cannot commit additional staffing, maintenance, or operational resources to support new or existing infrastructure. The project proponent should expect that frequent fence repairs and other repairs will be necessary in response to trespass and vandalism. Adequate maintenance resources will be needed.

Response SFPUC2-18

This comment related to the scope of future maintenance activities has been acknowledged.

Comment SFPUC2-19

The comment is regarding the following text from Draft EIR Table 3.1-2 on page 3.1-6: "16" Water Transmission Main Project–Purdue Ave (City of East Palo Alto.) The water transmission main project includes the installation of a new turnout connection to the SFPUC (San Francisco Public Utilities Commission) system to feed the Ravenswood Business District and future development in that area."

> SFPUC will need to review any proposed turnout connection through its Project Review Process. The project sponsor should not assume project approval until the SFPUC has vetted the proposal and provided authorization.

Response SFPUC2-19

This comment related to a cumulative project has been acknowledged.

Comment SFPUC2-20

> "Please include the SFPUC's demolition of its inactive pipelines and caissons [in Table 3.1-2 and] in the cumulative analysis. For more information, please contact Eric Choi, SFPUC Engineer, at echoi@sfwater.org."

Response SFPUC2-20

Pursuant to information received from Eric Choi subsequent to receipt of this comment, the SFPUC is not pursuing the referenced project at this time. No changes to the Draft EIR are needed.

Comment SFPUC2-21

> "The entry for the Peninsula Sportsmen's Club [in Table 3.10-1] should note that the remediation of the site included the installation of a clay cap that should not be disturbed in order to prevent the escape of contaminants into the environment."

Response SFPUC2-21

Please refer to **Response SFPUC2-5**.

Comment SFPUC2-22

> "Section 3.10 (Hazards, Hazardous Materials, and Wildfire) and Section 3.11 (Hydrology ad Water Quality) should include mitigation measures to avoid or minimize potentially significant impacts from the disturbance of the clay cap encapsulating hazardous soil contaminants at the former Peninsula Sportsmen's Club during construction of the proposed project."

Response SFPUC2-22

As indicated on Draft EIR page 3.10-24, although habitat improvements would occur within the Former Peninsula Sportsmen's Club site, the cleanup levels for lead shot and residual lead, arsenic, and antimony in soil were achieved in these areas through excavation and offsite disposal. With implementation of Mitigation Measures HAZ-1 and HAZ-2, which would require implementation of a Health and Safety

Plan and a Soil Management Plan, the Project is not expected to create a significant hazard to the public or the environment by constructing near the Former Peninsula Sportsmen's Club site.

Comment SFPUC2-23

> "Figure 2-26 shows potential "Staging and Materials Laydown" area on SFPUC remediation site. Remove laydown area from map as disturbance of the remediation site could damage the clay cap and result in the dispersal of hazardous contaminants."

Response SFPUC2-23

Please refer to **Response SFPUC2-5.**

Comment SFPUC2-24

The comment is regarding the following text from Draft EIR Section 2.7, page 2-63: "Operation and Maintenance -Member agencies would be responsible for conducting routine inspections of the shoreline protection facilities, operating flood gates, managing interior drainage, and maintaining the Bay Trail. Existing landowners would be responsible for maintaining public trails on their property. The SBSPRP and/or Refuge would be responsible for monitoring and maintenance of proposed restoration areas. Maintenance activities would be completed by existing staff; no new staff would be hired for Project operation and maintenance."

> "Trespassing remains an active and persistent challenge in the area. SFPUC cannot commit additional staffing, maintenance, or operational resources to support new or existing infrastructure. The project proponent should expect that frequent fence repairs and other repairs will be necessary in response to trespass and vandalism. Adequate maintenance resources will be needed.
>
> When the SFPUC authorizes improvements on its property, the authorization is to one entity. In other words, the SFPUC will work with a single entity to authorize any proposed improvements. In addition, the SFPUC requires a single contact for reporting needed repairs."

Response SFPUC2-24

This comment has been acknowledged. A single maintenance entity will be established with SFPUC in the future.

Comment SFPUC2-25

The comment is regarding the following text from Table INFRA-1: "Barrier fencing associated with SFPUC Ravenswood Pump Station (pending additional coordination with SFPUC management)."

> "SFPUC will need to review any proposed fence relocation through its Project Review Process. The project sponsor should not assume project approval until the project review process occurs."

Response SFPUC2-25

This comment has been acknowledged. Future design will be coordinated with SFPUC.

3.3 Response to Organization and Company Comments

3.3.1 Association of Ramaytush Ohlone (ARO)

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

Comment ARO-1

> "The Ramaytush Tribe (Tribe) and the Association of Ramaytush Ohlone (ARO) submit the following comments regarding the Safer Bay Project Draft EIR (Project). The Tribe and ARO support the Project especially because it proposes a nature-based solution to address sea level rise and flooding. To that end, the Tribe and ARO are available to consult on the design and other phases of the project."

Response ARO-1

This comment has been acknowledged.

Comment ARO-2

> "Regarding tribal cultural resources, the Tribe and ARO support the general analysis and proposed mitigation measures with some exceptions. First, because of the rise in sea level over time, tribal cultural resources, like shell mounds, increasing moved upward along the slope of the shoreline; therefore, the likelihood of disturbing tribal cultural resources becomes increasingly more possible the closer ground disturbance and boring are to the existing shoreline, except of course in areas of where fill is present. Since the proposed levees are close to the shoreline, and in some cases may be along or near the historical shoreline, the likelihood of disturbing tribal cultural resources is increased. The assessment that "undiscovered archaeological resources" would be impacted is "potentially significant" makes sense given the proximity of the project areas to known archaeological sites."

Response ARO-2

This comment has been acknowledged.

Comment ARO-3

> "Second, the assessment of cultural significance offered in existing laws and regulations (i.e., "Significance Criteria") are not always consistent with Native conceptions of cultural significance. Also, the absence of records at the NAHC or at the Northwest Information Center, as noted in the EIR does not preclude the possibility for the disturbance of tribal cultural resources; therefore, we request tribal consultation to assist in deciding in which project areas tribal monitoring is necessary."

Response ARO-3

Draft EIR Section 3.5, *Cultural Resources*, acknowledges that there is some degree of sensitivity for buried precontact archaeological resources in the Project area and vicinity and that the discovery of buried precontact archaeological resources during Project implementation cannot be entirely discounted. In

addition, as noted in the Draft EIR Section 3.6, *Tribal Cultural Resources*, SFCJPA has been consulting with the ARO, and members have attended the SAFER Bay advisory group meetings.

Comment ARO-4

> "Third, the Ramaytush are the original peoples of the San Francisco Peninsula—no other tribes have a legitimate claim to our aboriginal territory. The inclusion of other tribes on the NAHC Contact List constitutes a violation of our sovereignty, which is recognized in Executive Orders B-10-11 and N-15-19, and in existing law. Further, the NAHC Contact List is a product of underground regulations and does not have the force of law in the State of California. Because the Ramaytush Tribe is sovereign in its territory, we politely request that only the Ramaytush Tribe be consulted on the project. While it may be too late for that, we suggest 1) that the Ramaytush Tribe's comments be prioritized above the comments of other tribes and 2) that only the Ramaytush Tribe be selected for tribal monitoring."

Response ARO-4

As described in Draft EIR Section 3.6, *Tribal Cultural Resources*, SFCJPA sent letters to the tribes on the Native American Heritage Commission Contact List, as well as to ARO. ARO is the only consulting tribe for the Project. In addition, Mitigation Measure CUL-2 includes review of a cultural resources monitoring plan by consulting culturally affiliated Native American tribe(s). As ARO is the only consulting tribe, ARO will be provided with an opportunity to review the plan and provide tribal monitoring services, as needed.

Comment ARO-5

> "The Ramaytush Tribe and the Association of Ramaytush Ohlone request further testing and tribal consultation in the project areas (CUL-1, CUL-2, CUL-3, and CUL-4) as deemed necessary."

Response ARO-5

Mitigation Measure CUL-2 includes review of a cultural resources monitoring plan by consulting culturally affiliated Native American tribe(s). ARO is the only consulting tribe for the Project and will be provided with an opportunity to review the plan. The plan will include the results of the Project-level cultural resources assessment outlined in Mitigation Measure CUL-1, which will be prepared by an archaeologist meeting the U.S. Secretary of the Interior's Professional Qualification Standards for Archaeology. In addition, if inadvertent discoveries of cultural resources occur during Project implementation, ARO, as the consulting Native American tribe, will be informed and provided the opportunity to determine treatment measures to avoid, minimize, or mitigate any potential impacts on the resource, as outlined in Mitigation Measure CUL-3. If human remains are identified, California regulations (Public Resources Code section 5097 and California Health and Safety Code section 7050.5) will be followed, as outlined in Mitigation Measure CUL-4.

3.3.2 Belle Haven Empowered (BHE)

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level

Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

Comment BHE-1

> "Please include these comments in the administrative record for the Project, notwithstanding their submission time."

Response BHE-1

The SAFER Bay Project Team has accepted Belle Haven Empowered's comments, which are now part of the Administrative Record.

Comment BHE-2

> "The DEIR's Health Risk Assessment assumes that 100% of construction equipment will use "Tier 4 Final" engines (the cleanest available). However, Mitigation Measure AIR-1 does not explicitly mandate this. Request: The Final EIR must include a binding Mitigation Measure that explicitly prohibits Tier 2 and Tier 3 equipment. The project must mandate Tier 4 Final engines for all off-road diesel equipment, with verification required before construction begins."

Response BHE-2

As indicated in the Draft EIR (Table 2-8 on page 2-66), as part of the Project, the SAFER Bay Project Team and its member agencies have committed to the use of Tier 4 construction equipment where possible. The analysis therefore assumed use of all construction equipment meeting Tier 4 final standards as part of the Project.

Because this commitment is planned as part of the Project, it is not appropriate to include as mitigation. The SAFER Bay Project Team and its member agencies will include this requirement in construction specifications.

Comment BHE-3

> "The proposed "Best Management Practices" (watering soil twice a day) are insufficient for communities with high rates of asthma and respiratory distress. We cannot rely on standard practices when construction is occurring so close to homes and schools. Request: We demand that the Project Proponent install real-time PM10 and PM2.5 dust monitors at fence line locations near sensitive receptors in both East Palo Alto and Belle Haven. Data from these monitors must be publicly accessible to ensure transparency and accountability during active construction."

Response BHE-3

The comment requests that the Project implement particulate matter (PM) monitoring during construction. As described under Impact AIR-2 of the air quality analysis (beginning on Draft EIR page 3.3-25), construction emissions were evaluated consistent with the Bay Area Air District's (Air District's) CEQA Air Quality Guidelines (2022) and in accordance with CEQA Guidelines sections 15064, 15064.4, and 15126.4. The analysis determined that the Project's construction emissions of criteria air pollutants and fugitive dust would be below Air District's construction thresholds of significance. Consistent with CEQA Guidelines section 15064(b), this determination is based on substantial evidence and the use of thresholds formally adopted and recommended by the Air District for the projects within its jurisdiction.

As required by the Air District, the Project includes Basic Construction Mitigation Measures (e.g., watering exposed areas, track-out prevention, haul-truck covering, and stabilization of inactive areas) as Mitigation Measure AIR-1. The Air District identifies these measures as effective and appropriate for reducing fugitive dust emissions from typical construction activities. Implementation of these measures is standard practice and is considered sufficient to reduce construction-related PM_{10} (particulate matter less than or equal to 10 microns in diameter) and $PM_{2.5}$ (particulate matter less than or equal to 2.5 microns in diameter) emissions to less-than-significant levels for projects that do not exceed regional thresholds.

Under CEQA Guidelines section 15064.4(a), lead agencies must evaluate the extent to which a project increases air pollutant emissions and the effectiveness of feasible mitigation. Because the analysis concluded that construction emissions would be less than significant with implementation of the Air District's Basic Measures, additional mitigation such as onsite particulate monitoring is not required. CEQA does not require implementation of mitigation that is not necessary (CEQA Guidelines section 15126.4[a][3]).

The Air District does not require real-time PM monitoring for projects that do not exceed construction thresholds with the implementation of the Basic Measures. No substantial evidence is available indicating that construction activity associated with this Project would result in atypical or unusually high fugitive dust emissions that would not be controlled by the measures implemented and warrant additional monitoring.

It is important to note that air quality monitoring is not, in itself, an emissions-reduction measure and therefore does not serve as mitigation under CEQA. Under CEQA Guidelines section 15126.4(a), mitigation must directly avoid, minimize, rectify, or reduce an environmental impact. Monitoring does not meet this definition because:

- Monitoring is an information-gathering activity only. It collects data on ambient conditions but does not physically prevent, reduce, or control fugitive dust emissions.
- Emission reductions result from operational practices, such as watering, stabilizing surfaces, minimizing vehicle speeds on unpaved areas, and controlling track-out. These practices are already required through the Air District's Basic Measures and are directly tied to emission reduction effectiveness.
- The Air District does not identify PM monitoring as a mitigation measure for typical construction projects. Instead, it relies on implementation of Basic Measures as the effective, regionally applicable strategy for fugitive dust control.

For these reasons, PM monitoring is not required to mitigate the Project's impact during construction, as emissions would remain less than significant with the dust control measures already required. The Project will comply with all applicable Air District regulations and will implement all Basic Measures throughout construction to minimize fugitive dust emissions. Nonetheless, while the cities of East Palo Alto and Menlo Park are not committing to implementing PM monitoring at this time given that it is not warranted by the EIR's impact evaluation, they are open to exploring PM monitoring during future Project planning.

3.3.3 Citizens Committee to Complete the Refuge (CCCR) et al.

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

Comment CCCR-1

"Citizens Committee to Complete the Refuge is submitting this joint letter on behalf of ourselves, the Sierra Club Loma Prieta Chapter's Bay Alive Campaign, San Mateo County Bird Alliance and Green Foothills. We respectfully submit these comments regarding the Draft Environmental Impact Report (DEIR) for the Strategy to Advance Flood protection, Ecosystems and Recreation (SAFER) Project R-65 (Project). We commend the San Francisquito Creek Joint Powers Authority (SFCJPA) for its efforts to provide sea level rise resiliency for our Bayside communities and ecosystems through this project and for its repeated outreach to impacted communities throughout the planning process.

Our non-profit organizations all work to advance sustainable, nature-based solutions to sea level rise that protect, restore and enhance our natural wetlands and Bayland ecosystems. Together, we represent tens of thousands of Bay Area residents with a vested interest in the health and preservation of the San Francisco Bay and its ecosystems, and recognize the integral role they play in our defense against the threats of sea level rise. Our organizations have been involved with this project throughout the planning process. We have attended public meetings, met with community groups, and submitted comments on previous planning documents.

Based on our review of the DEIR, we submit the following comments on the Project, organized by overarching concerns that extend beyond a single reach or CEQA category, followed by comments related to specific CEQA categories. In addition, please see Exhibits A and B for memoranda prepared by our technical consultants.

- Exhibit A: January 17, 2026 Memorandum from Jenn Hyman, PE
- Exhibit B: June 14, 2022 Memorandum from Peter Baye, Ph.D., Coastal Ecologist

Thank you for your consideration of these comments."

Response CCCR-1

This comment has been acknowledged. Exhibit A has been codified as Comments CCCR-100 through CCCR-125. Exhibit B is a comment letter submitted in 2022 on the Notice of Preparation published for the SAFER Bay Project. Comments in that letter were considered in the preparation of the Draft EIR. To the extent that other comments in this submittal refer to Exhibit B, they are addressed below.

Comment CCCR-2

"This section summarizes cross-cutting deficiencies in the SAFER Bay Draft Environmental Impact Report (DEIR) that prevent meaningful public review and undermine the DEIR's adequacy under CEQA, particularly given the project's scale, complexity, and century-scale planning horizon. The concerns below are not intended to duplicate the issue-specific analyses that follow; rather, they identify systemic shortcomings that recur across multiple resource areas and that must be corrected before the DEIR can support informed decision-making.

Detailed technical support for many of these concerns is provided in Exhibit A (Hyman Memo), which evaluates the DEIR's analysis, assumptions, and conclusions, and identifies specific deficiencies in the DEIR's treatment of impacts, mitigation, and deferral. Additional foundational considerations raised during scoping, and still relevant to the adequacy of the DEIR's programmatic approach, are provided in Exhibit B (Baye Memo), including setting-dependent impact analysis, ecological performance considerations, and the importance of phasing and clear design definitions."

Response CCCR-2

This comment is a summary of more detailed comments submitted below. For reasons described in the subsequent responses, the SFCJPA disagrees with the assertions in this comment.

Comment CCCR-3

"1. The DEIR Does Not Function as an Adequate Programmatic EIR and Cannot Reliably Support Tiering

A central deficiency of the DEIR is that it does not provide the analytical foundation or enforceable standards necessary to function as a programmatic EIR for the many reaches evaluated only at a conceptual level. As documented in Exhibit A (Hyman Memo), the DEIR identifies a range of potentially significant impacts while deferring critical components of impact assessment and mitigation design to future project-level review, without establishing clear performance standards, decision criteria, or constraints that would ensure later designs avoid, minimize, and mitigate impacts consistent with CEQA."

Response CCCR-3

Please refer to the **Global Response on Level of Detail: Project and Program Analysis** in Section 3.1.1 of this document, which describes CEQA requirements regarding programmatic evaluations and addresses the level of detail presented in the EIR in the context of CEQA requirements. This comment is a summary of more detailed comments submitted below, specifically Comments CCCR-100 through CCCR-125. Please refer to **Responses CCCR-100** through **CCCR-125.** For reasons described therein, the SFCJPA disagrees with the assertions in this comment.

Comment CCCR-4

"For program-level reaches, the DEIR does not provide sufficient location-specific information for the public to determine whether the DEIR captures the reasonably foreseeable "upper range" of impacts that could occur from future construction and operations and maintenance activities, nor whether proposed measures are likely to reduce impacts to a less-than-significant level. This severely constrains the ability of the public and responsible agencies to evaluate whether deferral is appropriate, whether mitigation is adequate, and whether supplemental review will be required. Based on the DEIR's current level of disclosure, it is evident that supplemental EIRs will be necessary for program-level reaches, and that full agency and public review must be an essential component of those additional CEQA processes."

Response CCCR-4

Please refer to the **Global Response on Level of Detail: Project and Program Analysis** in Section 3.1.1 of this document, which describes CEQA requirements regarding programmatic evaluations, addresses the level of detail presented in the EIR in the context of CEQA requirements, and discusses location-specific information for program-level reaches. This comment is based on assertions in subsequent

comments; please refer to subsequent responses to comments in this submittal. As indicated in Section 3.1.1 of this document, Draft EIR Chapter 2, *Project Description*, and associated appendices present the best available location-specific information for the SAFER Bay Project based on what is currently understood regarding full Project buildout and operations. The Draft EIR analyzes the environmental impacts of Project implementation based on that description to the extent that it is reasonable to do so without resorting to speculation.

Comment CCCR-5

> "These concerns are compounded by the setting-dependent analysis issues identified during scoping (see Exhibit B, Baye Memo), which underscore that ecological performance and impacts are driven not simply by generic cross-sections, but by where features are sited within the land–shore gradient and by local habitat and hydrologic context. Without enforceable standards that require setting-specific analysis and design responses, tiering would be unreliable and would risk narrowing choices before the public can evaluate impacts and alternatives."

Response CCCR-5

The impact evaluations throughout Draft EIR Chapter 3 are based on the physical environmental settings presented for each environmental topic, not generic cross-sections. As indicated above, Exhibit B was written before the Draft EIR was published and does not reflect the Draft EIR's content. Evaluations in Sections 3.4, Biological Resources, and Section 3.11, Hydrology and Water Quality, are based on the physical environmental settings described in Sections 3.4.1 and 3.11.1; the impact evaluations presented in Sections 3.4.3 and 3.11.3 consider both direct and indirect impacts on affected resources. Please refer to the **Global Response on Level of Detail: Project and Program Analysis** in Section 3.1.1 of this document regarding CEQA requirements regarding reliance on an EIR for tiering. This comment is based on assertions in subsequent comments; please refer to subsequent responses for this submittal.

Comment CCCR-6

> "2. Document Organization and Reach Presentation Prevent Meaningful Review
>
> The DEIR is extraordinarily difficult to work with because information relevant to individual reaches is widely scattered across a very large document, with project-level and program-level reaches intermingled. As a result, it is often difficult to determine (i) what is proposed where, (ii) the level of design detail available for any given reach, and (iii) whether the impact analysis and mitigation measures correspond to the reach-specific conditions and design assumptions. This problem affects not only public comprehension, but also the ability of agencies to assess the adequacy of the impact analysis and efficacy of proposed mitigation measures and to identify enforceable conditions of approval.
>
> In addition, the DEIR does not consistently provide plan-view clarity regarding alignments and positions of levees, transition features, trails, and channel modifications relative to tidal marsh extent and the high tide line. As emphasized in Exhibit B (Baye Memo), impacts and ecological performance are often more dependent on siting and surrounding landscape setting than on the dimensions of a typical cross-section. Where that siting context is not plainly shown and analyzed, generalized programmatic conclusions can be confusing or misleading."

Response CCCR-6

Section 2.4.2 in Draft EIR Chapter 2, *Project Description*, systematically presents the following information by reach: existing conditions; description of proposed shoreline protection, restoration, and recreation features; and changes to infrastructure. Figures within each reach description present detailed plan-view aerial-photo-based maps as well as sections. Regarding the level of design detail available for each reach, as indicated on Draft EIR page 2-4, "Those Project components for which 30-percent design is available are generally evaluated at a project level of detail; those Project components for which conceptual (10-percent) design information is available are generally evaluated at a program level of detail." The level of design detail available for a given reach is shown on Figure 2-2 and described in Chapter 2. Regarding item (iii) in the comment, the impact evaluations are presented in Draft EIR Chapter 3 and based on the Project Description information presented and otherwise referenced in Chapter 2 (e.g., including more detailed information regarding restoration design in Draft EIR Appendix BIO3).[16] As indicated on Draft EIR page 3.1-1, the organization of each section within Chapter 3 is organized pursuant to CEQA required contents, presenting descriptions of the physical setting and regulatory framework followed by descriptions of impacts and mitigation measures. Impacts on biological resources are based not on one cross-section, as implied in the comment, but on thorough investigations of site-specific conditions, as evidenced by the detailed maps and evaluations presented in Section 3.4. Please refer to the **Global Response on Level of Detail: Project and Program Analysis** in Section 3.1.1 of this document for additional information relevant to this comment. Among the over 50 commenters on the Draft EIR, including representatives from eight agencies, this is the only commenter that expressed difficulty navigating the Draft EIR.

Comment CCCR-7

> "3. Ambiguity in Core Project Definitions and Design Assumptions Undermines Analysis Across Resource Areas
>
> The DEIR relies on broad terms, such as "horizontal levee," "habitat transition zone," and related "nature-based" features, without providing clear, consistent definitions that distinguish materially different design types in terms of slope, substrate, hydrology, vegetation expectations, and maintenance requirements. As explained in Exhibit B (Baye Memo), over-broad usage of these terms can be misleading, particularly where very different features are treated as interchangeable despite having fundamentally different ecological functions, construction requirements, and long-term management implications.
>
> As documented in Exhibit A (Hyman Memo), this definitional ambiguity also has practical consequences for CEQA adequacy: it hampers the ability of the public to identify impacts that should be analyzed, how mitigation will function, and whether future tiered projects will be held to meaningful, enforceable standards. This lack of clarity is especially consequential for biological resources and wetlands/waters impacts, where mitigation effectiveness and habitat function depend on the specifics of design and setting.
>
> At a minimum, the DEIR should be revised to emphasize variability among transition zones, clarify the nomenclature to distinguish among them when referencing specific facilities (e.g., 3:1 slope

[16] Minor revisions have been made to Appendix BIO3, Habitat Restoration Basis of Design Report, which is presented in this document as Appendix BIO3-REV.

transition zone) and provide estimates of the width of the transition zone that could be anticipated. (See Chapter 3.4 Biological Resources, below, for further discussion and citations.)"

Response CCCR-7

The Draft EIR describes the tidal salt marsh-upland transition zone proposed as part of the Project, referred to in the EIR as transition zone or T-zone, on page 2-8 of the Project Description. That term is used almost exclusively throughout the main body of the EIR to describe the proposed habitat that would be integrated into the bayward side of the levee. Draft EIR Table 2-2 (Overview of SAFER Bay Project by Reach) lists the proposed slope of the transition zone habitat in each reach. There are two occurrences in the 640-page main body of the EIR where the phrase "horizontal levee" is used: in both cases, it is in reference to the 10:1 bayward side of the levee along the Substation and Marsh Restoration Reach. The phrase "nature-based" is used three times in the main body of the Draft EIR but not in relation to the Project: the first occurrence (page 3.9-3) is part of a description of the concept of blue carbon and is provided for context; the second occurrence (page 3.12-8) is within a policy quoted from the Bay Plan; the third (page 4-5) is in a summary of comments submitted on the Notice of Preparation. There is not a lack of clarity regarding these terms.

As discussed in **Response CCCR-14**, the Draft EIR includes sufficient information to evaluate direct and indirect impacts on existing tidal marsh and other jurisdictional habitats. Impacts to tidal salt marsh and other habitats are addressed in Section 3.4 of Chapter 3, Biological Resources. Section 3.4.1 in Section 3.4 describes the existing physical setting with respect to habitats; the background reports and studies used to characterize existing conditions in the biological resources study area are listed on page 3.4-1 and include an aquatic resources delineation report prepared in accordance with regulatory protocols. Tables 3.4-4 and 3.4-5 (pages 3.4-23 and 3.4-24) quantify construction-phase temporary and permanent impacts (including fill) to existing marshes for program- and project-level components. Responses to comments presented in Exhibit A are presented in **Responses CCCR-100 through CCCR-125**.

Regarding the last paragraph in this comment, the Draft EIR acknowledges the variability in proposed T-zones. As stated on page 2-10: "Some T-zone habitat would be incorporated into the bayward-facing slopes of levees in all other reaches. The proposed slope and width of the T-zones was determined based on characteristics of existing habitat and may follow an irregular or undulating pattern based on the site-specific quality of existing habitat. For example, the proposed width of T-zones where high-quality tidal marsh is already present, such as Faber and Laumeister marshes (South of Bay Road and North of Bay Road reaches), is reduced compared to other options."

No revisions to the Draft EIR are warranted in response to this comment.

Comment CCCR-8

"4. The DEIR Systematically Jumps to Mitigation Without Demonstrating Avoidance and Minimization

Across multiple reaches, particularly at the program level, the DEIR too often proceeds directly to compensatory mitigation (e.g., habitat restoration in other reaches) without first demonstrating that feasible opportunities to **avoid** and **minimize** impacts have been rigorously analyzed and incorporated into project design. This sequencing is inconsistent with CEQA's requirement to analyze and adopt feasible measures that avoid or substantially lessen significant effects, and it is also

inconsistent with established regulatory expectations for impacts to jurisdictional wetlands and waters.

As detailed in Exhibit A (Hyman Memo), the DEIR frequently lacks sufficient evaluation of design alternatives and alignment variations that could reduce the footprint of fill, preserve tidal connectivity, or avoid sensitive areas—especially for program-level reaches where the DEIR relies on generalized concepts rather than reach-specific analysis. As further noted in Exhibit B (Baye Memo), wetland and marsh impacts are not limited to acreage: hydrogeomorphic function, tidal exchange, sediment dynamics, and habitat structure can be degraded or lost in ways that are not offset simply by restoration elsewhere. (See Section 3.4 Biological Resources for application to wetlands/waters and habitat function; and see Section 3.11 Hydrology and Water Quality for related channel and tidal prism implications.)"

Response CCCR-8

Habitat restoration is proposed as part of, and is a core element of the Project, as described in Section 2.4.1 of the Draft EIR and consistent with Project objectives. The Draft EIR evaluates the Project as proposed and described in Chapter 2 of the Draft EIR and associated appendices.

Alternatives considered to reduce the Project's significant impacts while feasibly meeting most of the Project's basic objectives are described in Chapter 4 of the Draft EIR, consistent with requirements set forth in CEQA Guidelines section 15126.6. The Draft EIR includes compensatory mitigation for Congdon's tarplant (Mitigation Measure BIO-4: Compensatory Mitigation for Congdon's Tarplant); however, it would only be implemented if impacts cannot be avoided, as required by Mitigation Measure BIO-3: Congdon's Tar Plant Avoidance and Minimization.

Refer to **Responses CCCR-100** through **CCCR-125** for responses to comments presented in Exhibit A and the assertion that the Draft EIR relies on "generalized concepts" rather than reach-specific analysis. For reasons described in these responses, the SFCJPA disagrees with that assertion. As noted above, Exhibit B was submitted prior to publication of the Draft EIR; refer to **Responses CCCR-14** through **CCCR-52** for responses to specific comments on Draft EIR Section 3.4, Biological Resources, and refer to **Responses CCCR-74** through **CCCR-88** for responses to specific comments on Draft EIR Section 3.11, Hydrology and Water Quality.

Comment CCCR-9

"5. Failure to Evaluate Phasing as a Core Avoidance/Minimization and Sea Level Rise Adaptation Strategy

Given the project's long design life and stated intent to be implemented over time, the DEIR should treat phasing not as an implementation detail, but rather as a central strategy for reducing near-term impacts, preserving adaptive capacity, and avoiding unnecessary early harm to wetlands, waters, and other sensitive resources. As documented in Exhibit A (Hyman Memo), the DEIR does not meaningfully evaluate phased or incremental construction alternatives and mitigation measures commensurate with the temporal nature of sea level rise risk and budget/land acquisition uncertainty.

As explained in Exhibit B (Baye Memo), constructing levees and transition features to accommodate a full century of sea level rise in a single construction phase can front-load habitat impacts and cause non-linear effects on tidal drainage networks, wildlife home ranges, and ecological connectivity well before those impacts are necessary to address actual flood risk. The DEIR should therefore analyze phased

approaches, such as staged elevation increases or incremental implementation measures, as alternatives and/or mitigation where feasible. (See Section 3.4 Biological Resources for further discussion.)"

Response CCCR-9

An EIR is required to consider a reasonable range of alternatives that are potentially feasible, can reduce significant environmental impacts identified in the EIR, and meet the basic project objectives while fostering informed decision making and public participation.[17] As indicated on Draft EIR page 4-10:

> [T]he 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. Reducing the height of shoreline protection would be counter to the purpose of the Project and its objective to reduce the risk of flooding from San Francisco Bay waters, including consideration of up to 3.5 feet of future sea level rise, and the communities' objective to be removed from the Federal Emergency Management Agency (FEMA) floodplain. Consequently, the strategy of reducing the height of shoreline protection was eliminated from further consideration."

A phased construction approach that would raise levee elevations in stages over time would still entail construction of a levee foundation with sufficient width to support future addition of engineered fill to that foundation to raise the levee crest elevation. Therefore, the width of the levee footprint and hence the aerial extent of direct permanent impacts on habitat associated with levee construction would not be reduced by a phased construction approach. In addition, with two construction mobilizations, wildlife disturbance would be amplified.

Several alternatives with modified designs that reduce impacts on wetlands and associated special-status species have been considered, as described in Draft EIR Chapter 4, consistent with the comment's rationale for suggesting a phased approach. The candidate alternatives included modifying the levee footprint, more extensive use of floodwalls, and shifting the levee landward as options for reducing the levee's impacts on wetlands. While most did not meet CEQA screening criteria and were therefore eliminated from further consideration, the Modified Footprint Alternative was evaluated and would reduce impacts on these resources. (As mentioned above, the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative.)

Comment CCCR-10

> "6. Cross-Cutting Deficiencies in Stormwater, Groundwater Rise, Contamination Pathways, and Remedy Interactions
>
> Water quality, stormwater management, and groundwater rise are central to this project and to its environmental risks. The DEIR nonetheless defers key information and relies on future plans and future design to address contamination pathways, dewatering and excavation effects, and interactions with existing remedial systems, often without sufficient detail to support findings of less-than-significant (or less-than-significant-with-mitigation) impacts. As documented in Exhibit A (Hyman Memo), this reliance on deferred plans and unspecified measures is a recurring deficiency that undermines CEQA findings across multiple resource areas.

[17] CEQA Guidelines section 15126.6(a); Draft EIR page 4-1.

These issues also have direct implications for biological resources and wetlands and waters. Construction disturbance, in-water work, excavation in contaminated areas, dewatering, and alterations in drainage patterns can mobilize contaminants and impair wetland function in ways that must be analyzed with reach-specific specificity."

Response CCCR-10

Draft EIR Sections 3.10, Hazards and Hazardous Materials, and 3.11, Hydrology and Water Quality, evaluate the topics raised in this comment. Both sections identify mitigation measures to address anticipated significant impacts, prepared in accordance with CEQA Guidelines section 15126.4.

This comment is based on assertions presented in other comments in CCCR's comment letter (Comments CCCR-100 through CCCR-125). Plans referenced by Comments CCCR-100 through CCCR-125 include the health and safety plan (Mitigation Measure HAZ-1) and soil management plan (Mitigation Measure HAZ-2). Although these plans would be prepared and finalized in the future, the Draft EIR identifies the relevant standards, lists required contents, and describes how the plans would be implemented, as summarized below:

- Mitigation Measure HAZ-1 (Health and Safety Plan) states that the health and safety plan must be prepared 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 mitigation measure also lists the required content of the health and safety plan, including procedures to follow if evidence of potential soil or groundwater contamination is encountered. The mitigation measure states that such procedures 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 regional water quality control board, and retaining a qualified environmental firm to perform sampling and remediation.
- Mitigation Measure HAZ-2 (Soil Management Plan) requires implementation of a soil management plan for construction sites outside of adopted plan areas and within or adjacent to known contaminated sites. The mitigation measure requires compliance with applicable local, state, and federal regulations related to the identification, transportation, and disposal of hazardous materials. Under title 22 of the California Code of Regulations section 66261.20 et seq., excavated soil and groundwater are classified as a hazardous waste for offsite disposal purposes if either exhibit the characteristics of ignitability, corrosivity, reactivity, or toxicity. Title 22 of the California Code of Regulations, division 4.5, article 3, section 66261.24 also defines toxic waste as material containing certain substances at concentrations above thresholds specified in the code. Consistent with the California Code of Regulations title 22, division 4.5, chapter 12, section 66262.11 (Hazardous Waste Determination), in all Project locations, the Project proponent would also be required to identify and manage hazardous soil and groundwater and identify appropriate disposal methods. Mitigation Measure HAZ-2 requires soil testing in compliance with applicable local, state, and federal regulations (including the definitions and methods specified in the California Code of Regulations). Mitigation Measure HAZ-2 also identifies other required protocols to be included in the plan, such as training workers to recognize potential soil contamination, disposal by a qualified contractor if contamination is identified, and identification of approved landfill or soil reuse sites (i.e., consistent with the requirements of California Health and Safety Code division 20, chapter 6.5, article 2, section 25100 et seq., listed in Draft EIR Table 3.10-3). Note that revisions to Mitigation Measure HAZ-2 are presented in Chapter 4 of this document, *Draft EIR Revisions*.

These measures establish clear performance standards—namely, that construction activities would be conducted in accordance with applicable federal, state, and local hazardous materials regulations and with approved risk management plans—to minimize the potential for exposure to hazardous materials during Project implementation. Because the mitigation measures ensure that appropriate risk management procedures will be in place before ground disturbance occurs, the Draft EIR can reasonably conclude that impacts related to hazardous materials during construction would be reduced to a less-than-significant level.

Regarding the level of detail presented in the Draft EIR, please refer to **Section 3.1.1, Global Response on Level of Detail: Project and Program Analysis**.

For responses to comments pertaining to stormwater management, please refer subsequent responses, below (e.g., CCCR-81, CCCR-82, CCCR-88, and CCCR-107 through 111).

Regarding the issue of groundwater rise, as discussed in **Response BCDC-30**, sheet pile walls are present along approximately 35 percent of the levee alignment (South of Bay Road, Dumbarton Approach, and Tech Campus reaches) and are not expected to substantially increase the risk of groundwater emergence. Consequently, construction or operation of the Project would not indirectly affect the remediation systems operating at nearby contaminated sites due to changes in groundwater flow (refer also to **Response CCCR-72**).

Comment CCCR-11

> "7. Construction Methods and Secondary/Indirect Impact Pathways Are Under-Disclosed
>
> A major weakness of the DEIR is the failure to provide sufficient detail regarding construction methods, staging, soil handling, dewatering, equipment, spoil management, and related best management practices in a manner that allows the public to evaluate impacts beyond the immediate footprint or understand if the proposed impact footprint is reasonable (particularly for the temporary impact footprints). This deficiency affects multiple resource areas, including air quality, hazards, hydrology and water quality, and biological resources. It also undermines the credibility of several DEIR conclusions that assume effective implementation of mitigation measures without disclosing the operational details needed to determine whether those measures are feasible and enforceable.
>
> Where the DEIR relies on future plans (e.g., health and safety plans, soil and groundwater management plans, and other programmatic documents) to support findings, it must provide sufficient standards and content requirements now so that those plans can be evaluated for effectiveness and enforceability."

Response CCCR-11

Please refer to the **Global Response on Level of Detail: Project and Program Analysis** in Section 3.1.1 of this document regarding the level of detail presented in the EIR in the context of CEQA requirements. As described there, the EIR reflects the level of detail available for the Project, which provides the basis

for evaluating foreseeable environmental impacts and avoids speculation. The following addresses the specific information mentioned in this comment.

Chapter 2, *Project Description*, presents information pertaining to Project construction, including the following:

- **Construction Methods**. Refer to Draft EIR Section 2.4.2 for a description of the construction process, including construction work hours, staging (to the extent identified to date), workforce, and additional construction details.
  - **Construction Process for Shoreline Protection and Recreation Features**. Table 2-5 presents the construction process for shoreline protection and recreation features, including a sequential description of the six construction phases (e.g., site preparation/mobilization, demolition, grading, and drainage/water control) and identifies 37 specific construction activities within the phases (e.g., install dewatering wells, close trails, install erosion control features).
  - **Construction Process for Habitat Improvements**. Similarly, Table 2-6 presents the construction process for habitat improvements, including the 6 construction phases and 25 specific construction activities within the phases.
- **Staging**. As disclosed in the Draft EIR (page 2-61), "**Figure 2-26** presents proposed staging and materials laydown areas for Project-level components. No staging areas have been identified for program-level components. Staging areas for program-level components would be in the vicinity of construction areas on the landward side of the shoreline protection alignment(s) and within areas that are paved or have been previously disturbed and lack wetland features."
- **Soil Handling.** Proposed soil handling procedures are presented within descriptions of construction processes in Tables 2-5 and 2-6 (e.g., strip and stockpile soil, degrade existing berm). Table 2-10 identifies the estimated volume of material to be stockpiled for reuse and volume of material for direct reuse. Table 2-7 presents estimated truck trips associated with earthwork (e.g., grading). Together, this information provides the basis for evaluating impacts related to soil handling in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*. Regarding impacts associated with spoils management, refer to the evaluations presented in Sections 3.2, Air Quality, 3.10, Hazards, Hazardous Materials, and Wildfire, and Section 3.11, Hydrology and Water Quality.
- **Equipment.** Table 2-8 presents a list of all equipment anticipated to be used during the construction process.

The evaluation of construction-phase impacts is presented throughout Chapter 3 of the Draft EIR. Refer to **Response CCCR-10** for further response related to the health and safety plans and soil management plan included as mitigation measures in the Draft EIR.

Comment CCCR-12

"8. Technical Correction Relevant to South of Bay Road Reach

Faber-Laumeister Unit Management: There are multiple discussions in the DEIR that incorrectly describe ownership and management of the Faber-Laumeister Unit. We provide corrections.

In 1994 the City of Palo Alto and the US Fish & Wildlife Service signed the Faber/Laumeister Cooperative License Agreement.(1) The parties agreed to cooperate in the protection and enhancement

of the unique tidal salt marsh ecosystem of the Faber-Laumeister marshes, then and now host to endangered species. The lands would be managed as part of the San Francisco Bay National Wildlife Refuge[2] using work plans[3] applying federal standards of the National Wildlife Refuge System.

[Refer to map on page 6 of this comment in Appendix RTC-1]

Today the City of Palo Alto remains the landowner and the lands are Refuge-managed[4]. While the City holds rights of ownership, in its agreement to the habitat and species values, it defers property access and other land management decisions to the Refuge. Examples of incorrect text include P. 2-1, P. 3.11-3 (2 locations) and P. 3.17-6 and P. 3.17-7. Other incidents may exist. Please make all appropriate corrections in the DEIR."

[Comment Footnotes:

(1) City of Palo Alto and US Fish and Wildlife Service, Faber/Laumeister Cooperative License Agreement, 4/13/1994. Provided as an attachment of this letter.
(2) The Refuge has since been renamed the Don Edwards San Francisco Bay National Wildlife Refuge.
(3) USFWS, Don Edwards San Francisco Bay National Wildlife Refuge Comprehensive Conservation Plan, 2012: https://iris.fws.gov/APPS/ServCat/Reference/Profile/43999
(4) City of Palo Alto, Comments to SAFER Bay NOP, 06/06/2022: See DEIR APPENDIX SCOP]

Response CCCR-12

Text in the Draft EIR has been revised to reflect Refuge management of resources within Faber and Laumeister marshes (see Chapter 4 of this document, *Draft EIR Revisions*). These revisions do not affect the evaluations in the EIR.

Comment CCCR-13

"CHAPTER 3.3 AIR QUALITY

Findings of less-than-significant (LTS) for Impact AIR-3 using Mitigation Measure AIR-1: Best Management Practices for Construction Related Fugitive Dust Emission can be assured by monitoring PM2.5 emissions near the identified sensitive receptors to confirm that health impacts remain within acceptable ranges."

Response CCCR-13

The comment suggests that the Project's less-than-significant conclusion for Impact AIR-3 should be supported by $PM_{2.5}$ (particulate matter less than or equal to 2.5 microns in diameter) monitoring near sensitive receptors. For reasons described below, the Draft EIR appropriately concludes that with Mitigation Measure AIR-1, Impact AIR-3 would be less than significant, and particulate matter (PM) monitoring is not warranted to support the impact conclusion. Nonetheless, while the cities of East Palo Alto and Menlo Park are not committing to implementing PM monitoring given that it is not warranted by the EIR's impact evaluation, they are open to exploring PM monitoring during future Project planning.

The Draft EIR's conclusion of a less-than-significant impact for Impact AIR-3 with implementation of Mitigation Measure AIR-1 is consistent with the methodology recommended by the Bay Area Air District (Air District, formerly known as the Bay Area Air Quality Management District [BAAQMD]). The Air District, which is the state agency charged with implementing state and federal air quality regulations for

the San Francisco Bay Area (Bay Area) region, provides the following in support of its recommended methodology in its *Thresholds of Significance Justification* document:

> "For fugitive dust emissions, staff recommends following the current best management practices approach which has been a pragmatic and effective approach to the control of fugitive dust emissions. Studies have demonstrated (Western Regional Air Partnership, U.S. EPA) that the application of best management practices at construction sites have significantly controlled fugitive dust emissions. Individual measures have been shown to reduce fugitive dust by anywhere from 30 percent to more than 90 percent. In the aggregate best management practices will substantially reduce fugitive dust emissions from construction sites. These studies support staff's recommendation that projects implementing construction best management practices will reduce fugitive dust emissions to a less than significant level."

CEQA Guidelines section 15126.4(a) sets forth requirements for an EIR to describe measures to mitigate a project's significant environmental impacts. The measures must also be fully enforceable through permit conditions, agreements, or other legally binding instruments; additional mitigation is not required beyond a less-than-significant conclusion. Mitigation Measure AIR-1 details all feasible dust control measures that the Air District has determined to be effective in reducing fugitive dust impacts to less-than-significant levels.

Real-time PM monitoring is not a control measure and does not itself reduce emissions. It therefore does not meet CEQA's definition of mitigation, which must directly avoid, minimize, or reduce an impact. Moreover, the Air District does not require PM monitoring for construction projects that implement the Basic Measures, and the record does not indicate that this Project would involve atypical dust-generating activities requiring extraordinary controls.

The Draft EIR appropriately concludes that with Mitigation Measure AIR-1, Impact AIR-3 would be less than significant, and additional particulate monitoring is not warranted to support the impact conclusion. Nonetheless, as stated above, the cities of East Palo Alto and Menlo Park are open to exploring PM monitoring during future Project planning.

Comment CCCR-14

> "CCCR's SAFER Project NOP comment letter included a memorandum from Dr. Peter Baye (Baye, Exhibit B) in which he made the following general recommendations for the preparation of an adequate environmental assessment:
>
> 1) "*The EIR should clarify and define explicit working definitions and criteria (including slopes, substrates, hydrology, vegetation types) for all project-defining terms like "horizontal levee", "habitat transition zone", "ecotone levee", noting both synonyms and relevant distinctions.*" (Baye, Exhibit B)
>
> The DEIR states that, "Tidal salt marsh–upland transition zone (T-zone) habitat would be integrated on the bayward side of levee segments." (Page 2-8) This is not fundamentally different than the SAFER Project NOP statement that, "*The Project also proposes to increase the diversity of habitat by building tidal salt marsh-upland transition zone habitat (transition zone habitat) on the bayward slope of appropriate segments of levee adjacent to existing and/or restored tidal salt marsh*." (SAFER Bay NOP, April 22, 2022)

Dr. Baye had this response to the NOP description of transition zone habitat: "*This general description does not distinguish the fundamental design and impact context of whether levee features are built landward or bayward of the* ***existing high tide line****, in tidal wetland gradients*. "(emphasis added).

We can find no definition/description in the DEIR for the use of the term "habitat transition zone", "transition zone" or T-zone". Reviewers may not be aware that by definition, the toe of the habitat transition zone begins at the existing high tide line **adjacent to the marsh** and extends landward. In almost every reach, the SAFER Project is proposing to create "transition zone habitat" on levee slopes that extend downward onto the existing marsh plain, well beyond the high tide line.

The DEIR fails to define what is meant by the term "transition zone habitat" in the document, and to describe reach-specific details on how, and to what extent, fill will be placed in existing marshes. Additionally, the EIR should clearly outline all measures considered to avoid or minimize the extent of the encroachment into existing tidal marsh."

Response CCCR-14

Regarding terminology used in the Draft EIR, please refer to **Response CCCR-7**. As described below, the level of detail depicted on exhibits presented in the Draft EIR, including Chapter 2 and appendices referenced in Chapter 2 and the descriptions of the physical setting presented in Chapter 3, is sufficient to support the evaluation of the Project's impacts on the physical environment, consistent with CEQA requirements.

Draft EIR Chapter 2 presents the Project Description, which includes (on pages 2-8 and 2-9) a description of tidal salt marsh–upland transition zone (T-zone) habitat proposed as part of the Project.

Draft EIR Chapter 3 describes impacts expected to be caused by the Project, which are based on comparing existing physical conditions to with-Project conditions. Impacts to tidal salt marsh and other habitats are addressed in Section 3.4 of Chapter 3, Biological Resources. Section 3.4.1 in Section 3.4 describes the existing physical setting with respect to habitats; the background reports and studies used to characterize existing conditions in the biological resources study area are listed on page 3.4-1 and include an aquatic resources delineation report prepared in accordance with regulatory protocols. Section 3.4 includes over 40 figures depicting the locations of existing land cover/habitat types throughout the study area. On these maps, the following habitats can be assumed to be waterward of the mean high tide line (MHTL): tidal northern coastal salt marsh, tidal open water, tidal brackish marsh, muted tidal open water, and portions of non-tidal/muted tidal northern coastal salt marsh with a connection to tidal waters. The landward boundaries of these habitats can be assumed to be approximately the MHTL. Direct and indirect impacts to existing tidal salt marsh and other jurisdictional habitats are presented primarily in Impact BIO-2 in Section 3.4. Tables 3.4-4 and 3.4-5 (pages 3.4-23 and 3.4-24) quantify construction-phase temporary and permanent impacts (including fill) to existing marshes for program- and project-level components. Tables BIO4-1 through BIO4-10 (in Appendix BIO4) present this same information but quantify impacts (including fill) by reach. The maps included in Section 3.4 use patterns to depict direct and indirect, permanent and temporary ("construction-phase impact area") impacts to the various habitats.

The reduction in impacts to wetlands and aquatic habitat, particularly in high quality marsh habitat, and constraints of more landward alignments were evaluated during Project development and informed the selection of the proposed design and alignment. After Project impacts were quantified, additional means

to reduce impacts to waters of the United States and state were identified and incorporated into the Modified Footprint Alternative (described in Chapter 4, *Alternatives*). Additional potential alternatives that could reduce impacts to marsh were considered but eliminated for reasons described in Draft EIR Section 4.6 (beginning on page 4-29). Refer to **Response BCDC-2** for more information on this topic.

Comment CCCR-15

"2) *"Corresponding plan view figures in the EIR should make levee alignments and positions plain, in relation to tidal marsh and high tide line positions. Otherwise, programmatic environmental assessment of typical project designs would almost certainly result in confusing or misleading general conclusions."* (Baye, Exhibit B)

Even for the project-level reaches, no information is provided on the location of the high tide line in relation to the toe of the levee, or the actual distance of the bayward levee slope for the flood protection infrastructure adjacent to tidal marshes. The project description for both the program and the project-level reaches is missing this critical information which must be provided."

Response CCCR-15

Please refer to **Response CCCR-14**.

Comment CCCR-16

"3)*"…the EIR should consider alternatives and mitigation measures that include levee or habitat transition zones also raised in stages or increments to distribute and dissipate habitat impacts over decades, minimize near-term wetland fill impacts, in closer pace with sea level rise rather than a full century ahead of it."*

"The EIR should consider active management of internal marsh high tide refuge habitats as potential mitigation for short-term and long-term impacts of levee construction, to enhance resilience of cross-shore high tide refuge habitats (landward-edge and interior refuge habitats interacting at different tide levels.)" (Baye, Exhibit B)

The EIR must identify reach-specific opportunities to minimize significant adverse impacts by incrementally phasing the construction of levees near marshes, and through the creation and/or maintenance of internal marsh high-tide refugia for the tidal marsh listed species that are found throughout the SAFER Project area."

Response CCCR-16

Please refer to **Responses CCCR-9** regarding the suggestion to implement the levee in stages, **Response BCDC-2** regarding reach-specific impacts on marsh and consideration of reducing impacts on marsh during design and alternatives screening, Draft EIR Section 2.4.1 regarding habitat improvements proposed as part of the Project, and Draft EIR Impact BIO-2 (beginning on Draft EIR page 3.4-67) for the evaluation of impacts on state or federally protected wetlands (including marshes) and mitigation.

Comment CCCR-17

"4) *"The EIR should consider opportunities to set back recreational trails as far as possible from the bayward slopes of levees or habitat transition zones, instead of designing them for full levee top (road) span. The bayward side of the levee top should be evaluated in the EIR designs as components*

of buffer zones that provide vegetative screening (knee-high or taller brushy or bristly native upland scrub vegetation…to discourage people or dogs from establishing social trails to transition zone wildlife habitats." (Baye, Exhibit B)

> The EIR fails to assess trail impacts to wildlife in each reach and to identify Bay Trail segments that can be modified from the proposed 20-foot width to help mitigate wildlife impacts from trail users."

Response CCCR-17

Impact BIO-1 (beginning on page 3.4-25) evaluates impacts on biological resources due to trail use; the impacts are described by resource rather than reach. Mitigation Measure BIO-14: General Wildlife Impact Minimization Measures (Draft EIR page 3.4-43) addresses this issue by requiring installation of signage in sensitive areas; prohibiting dogs on trails in the Don Edwards San Francisco Bay National Wildlife Refuge (Refuge) and off-leash dogs elsewhere; and requiring that platforms, kiosks, benches, interpretive displays, and other focal areas for public use be located at least 300 feet from western snowy plover (WSP) nesting habitat.

Refer to **Response CCCR-92** regarding the proposed width of the trail.

The revegetation plan for levee slopes largely avoids larger, shrub and tree species due to United States Army Corps of Engineer (USACE) requirements for vegetation on flood control levees. However, select taller shrub species are incorporated in salt marsh-upland transition zones areas adjacent to tidal marshes to provide high-tide refugia for marsh wildlife (see Appendix BIO3 Sections 3.9 and 7). Vegetation maintenance, including responses to social trails, would be addressed in the Project's future Habitat Restoration and Monitoring Plan (HRMP) which is required as part of Mitigation Measure BIO-26. The HRMP will be submitted to the Bay Restoration Regulatory Integration Team (BRRIT) for approval during the regulatory permitting process. The SAFER Bay Project Team will take into consideration the pros and cons of aligning the pedestrian areas of the Bay Trail along the landward edges where feasible as design development continues and if it is consistent with access requirements summarized in **Response CCCR-92**.

Comment CCCR-18

"Dumbarton Approach (north of SR 84)

The DEIR includes a discussion on filling tidal channels: *"In some locations, flood protection infrastructure or construction-phase work within 10 feet bayward of the levee toe would block and/or dewater tidal slough channels that help to distribute tidal waters throughout adjacent marsh habitats located bayward of the construction-phase temporary impact area. This could result in the degradation of up to 37.55 acres of tidal marsh due to muting of tidal action in Ravenswood Slough and Ravenswood Open Space Preserve. However, the Project avoids this impact because the Project's habitat restoration design incorporates grading of replacement tidal slough channels to maintain the existing tidal flows to the broader marsh. The design for the area and length of the tidal channels is based on providing sufficient hydraulic capacity to maintain the hydrologic regime. The tidal channels have also been designed to use existing channels where possible and maintain similar sinuosity, width, and depth as the affected channels, where feasible. Replacement tidal channels would be constructed as a first order of in-marsh work to provide alternative hydraulic connectivity pathways and avoid hydrologic impacts on the tidal marsh. Replacement tidal channels would be monitored to verify their proper function as part of the post-construction habitat restoration*

*monitoring program to be implemented as part of **Mitigation Measure BIO-26**. Affected channels are identified in Faber and Laumeister marshes, Ravenswood Open Space Preserve, and Ravenswood Slough. The locations of replacement tidal channel excavations are shown in Figures 3.4-2d and 3.4-2j. Nonetheless, impacts during construction would result from grading of these replacement tidal slough channels, which would convert some vegetated tidal salt marsh to unvegetated slough channel habitat. (Page 3.4-69)*

Figure 3.4-2i for the program-level section of the reach adjacent to the Mosely Tract Marsh shows that the flood protection infrastructure (P-2) will cover and fill a substantial tidal channel in the back of the marsh nearest to State Route 84. This channel appears to provide tidal flow to a substantial portion of tidal marsh in this area. This impact has not been identified in the DEIR; additionally, unlike in Figure 3.4-2j for the Tech Campus Reach, there is no indication that there will be a "Replacement Tidal Channel Excavation."

The DEIR fails to identify this impact and provide the scientific basis for the lack of a replacement tidal channel in the programmatic EIR. A full hydrological study of the impacts to tidal marsh habitat from filling this channel must be undertaken and mitigation measures must be identified to ensure tidal flow to all portions of the marsh are unimpeded and adequate to sustain existing marsh vegetation."

Response CCCR-18

Please refer to **Response BCDC-27** regarding replacement of the channel within Moseley Tract. Refer to **Response CCCR-51** regarding the sizing of replacement tidal channels.

Comment CCCR-19

"Background Reports and Surveys

The DEIR references two studies that do not appear to be available as appendices to the DEIR or available online. Please provide access to these reports:

- H.T. Harvey & Associates, 2024. *SAFER Bay Project – Aquatic Resources Delineation Report*. April 2024.
- H. T Harvey & Associates, 2024. *SAFER Bay Project Wetland Habitat and Western Snowy Plover Impacts and Restoration Options Evaluation*."

Response CCCR-19

The studies have been made available online on the SFCJPA website (sfcjpa.org).

Comment CCCR-20

"**Mitigation Measure BIO-4 Compensatory Mitigation for Congdon's Tarplant** The mitigation proposed states

> "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 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 preservation of one plant for each plant affected is inadequate. A 1:1 mitigation ratio, plant-for-plant does not adequately ensure that the preserved plant is reproductively viable. Instead, the reproductive rate of preserved plants is biologically more meaningful. We suggest mean seed output per preserved plant that is comparable to that of a reference population is a better measure of mitigation success than mere plant survival. The mitigation measure should include a 5-year monitoring period of mean seed production."

Response CCCR-20

The mitigation ratio of 1 plant preserved for each plant affected and at least 1 occupied acre preserved for each occupied acre affected has been established as an acceptable mitigation ratio in the region to reduce impacts on Congdon's tarplant because it ensures that affected individuals and habitat will be replaced with no net loss. There is no reason to expect that Congdon's tarplants in the mitigation area will be less productive than existing plants, so we disagree that seed output needs to be monitored for such mitigation to be successful. Further, details of the Congdon's Tarplant Habitat Mitigation and Management Plan described in MM BIO-4 will ensure the mitigation will be successful.

Comment CCCR-21

"**Comments Regarding Proposed Western Snowy Plover Mitigation Measures**

The DEIR proposes mitigation measures to offset the following programmatic impacts to the federally listed, threatened Western Snowy Plover (SNPL):

> "During the construction phase, a total of approximately 5.31 acres of managed pond and 0.15 acre of intertidal mudflat habitat where the western snowy plover may occur would be affected in the Program area (Table 3.4-4), including within the North of Bay Road, Dumbarton Approach, Bayfront Expressway, Bedwell Bayfront Park, and Marsh Road reaches (Figures 3.4-2e, f-I, n-v). Permanent impacts would occur within a total of 8.10 acres of managed pond habitat in these reaches."

Project level impacts would include

> "…Construction-phase temporary impacts in the Project area would occur in 238.04 acres of managed pond, 3.10 acres of intertidal mudflats, and 0.11 acre of non-tidal saline pond, including in and directly south of Pond SF2 in the Dumbarton Reach (Figures 3.4-3h) and Ponds R1 and R2 in the Substation and Marsh Restoration Reach (Figure 3.4-3i), that provide potential western snowy plover habitat. Permanent impacts in the Project area would occur in 25.83 acres of managed pond and 0.30 acre of non-tidal saline pond in the two areas where flood protection infrastructure is built. In addition, opening Ponds R1 and R2 would result in the loss of 476.1 acres of pond bottom within 572.1 acres of managed pond habitat."

Ponds R1 and R2 are being proposed for tidal wetlands restoration. The DEIR states that the amount of suitable SNPL habitat varies in Ponds R1 and R2 because currently, there is no way to discharge water from ponds R1 and R2 and the pond bottoms may not have dried to the extent needed for successful SNPL nesting, however, "Loss of Ponds R1 and R2 would result in the loss of an average of approximately 12 nests per year, but up to approximately 34 potential nests per year, which represents the sum of the maximum number of nests documented in these two ponds (Table 3.4-6)."

The DEIR proposes in Pond SF2 [App BIO1, Section 4.0 Pond SF2 WSP Habitat Enhancements] to

- Reconfigure cells U2, U3, and U4 into one contiguous pond by removing interim berms.

- Grade down the nesting islands that were created in cell U2 to match the pond bottom elevation.
- Utilize removed berm material to block some of the borrow ditches.
- Widen the perimeter borrow ditch to reduce mammalian predator access.
- Increase the area over which oyster shell or gravel will be spread to aid in the ability of SNPL to hide from predators (camouflage).
- Adding avian predator perch deterrents to power towers, where feasible.
- Increase funding for predator management activities in efforts to support SNPL breeding.

In addition, SNPL habitat enhancement is being proposed in Pond R3 [App BIO1, Section 5.0 Pond R3 WSP Habitat Enhancements]:

- Increase the ability of SNPL to hide from predators by adding oyster shell or gravel (crypsis) to the pond bottom.
- Widen the borrow ditch adjacent to the SAFER levee to reduce mammalian predator access.
- Increase funding for predator management.
- Monitor the stability of the berm between Pond R3 and Ravenswood Slough and potentially construct targeted berm repair as needed.

The DEIR states the proposed improvements in Pond R3 will improve water management capabilities and therefore "allow the pond to be managed to provide consistent breeding and foraging habitat." In addition, the depth of water within the borrow ditch would be managed to a depth of at least 3' to discourage access to the pond bottom by mammalian predators.

Monitoring of SNPL nesting success within Ponds SF2, R1, R2, and R3 has been conducted by the San Francisco Bay Bird Observatory since 2007. The annual reports provided by SFBBO confirmed that factors believed to be limiting the numbers of SNPL nests in the Ravenswood ponds were

- Whether pond bottoms were dry during the nesting season
- Whether there was adequate foraging habitat in proximity to nest sites (and associated with foraging habitat, the steepness of borrow ditch side slopes, see below)
- Predation by avian predators
- Disturbance from illegal trespass onto pond bottoms

With respect to the condition of pond bottoms, available foraging habitat, borrow ditch side slopes, and management of water levels within the borrow ditches, the 2008 SFBBO Annual Report states[5]

> "We banded 5 chicks from the 2 nests on RSF2 and none of the 5 chicks banded on RSF2 are known to have fledged. The number of Snowy Plovers we observed in RSF2 decreased throughout the season and we stopped seeing them in the pond by the middle of July. RSF2 dried almost completely throughout the season and may not have provided good foraging habitat later in the season. We did not band the R1 and R4 chicks due to lack personnel for re-sightings…<u>The borrow ditches in the R1-R4 ponds are very steep sided and therefore do not provide ideal foraging habitat for Snowy Plovers. Ponds R1-R4 may serve as an ecological trap by attracting Snowy Plovers to what seems like good foraging habitat but as the pond dries the steep borrow ditches may decrease fledgling rates. In order to enhance Snowy Plover foraging and nesting habitat, the water levels should be managed in R1-R4 to maintain higher water levels throughout the season</u>.

The importance of being able to introduce water to the Ravenswood ponds to reduce the amount of vegetation on the pond bottoms, being able to remove water from the pond bottoms prior to the

> beginning of the SNPL nesting season to ensure they are suitably dry to support SNPL nesting, ensuring that water control structures are properly maintained to avoid accidental flooding of occupied nests, maintaining appropriate levels of water within the borrow ditches to provide foraging habitat for SNPL adults and juveniles, while also providing a barrier to illegal trespass and access by terrestrial predators, are themes that are repeated in the SNPL nesting success annual reports. These recommendations have been incorporated into the mitigation measures proposed in this DEIR."

[Comment Footnote:

(5) Robinson, Caitlin, Jill Demers and Cheryl Strong. 2008. *Western Snowy Plover Numbers, Nesting Success, Fledging Success and Avian Predator Surveys in the San Francisco Bay, 2008.* San Francisco Bay Bird Observatory/U.S. Fish and Wildlife Service.]

Response CCCR-21

The information in the comment correctly quotes from and summarizes information in the Draft EIR, summarizes information presented in annual western snowy plover nest monitoring reports prepared by San Francisco Bay Bird Observatory (SFBBO), and indicates that recommendations from those monitoring reports have been incorporated into the Draft EIR. Much of what the comment refers to as mitigation measures is proposed as part of the SAFER Bay Project (e.g., refer to the sections Construction of Snowy Plover Breeding Habitat and Water Management in Pond SF2 in Draft EIR Section 2.4.1) rather than as mitigation measures. This comment has been acknowledged and does not affect the analysis or conclusions presented in the Draft EIR.

Comment CCCR-22

"To address concerns of increasing nest densities and reducing nest depredation within the managed ponds of SNPL Recovery Unit 3, a pilot Snowy Plover habitat enhancement study at the Eden Landing Ecological Reserve Unit was conducted from 2008-2014 testing the efficacy of spreading oyster shell and/or gravel across the pond bottoms to provide camouflage for SNPL against a multitude of predators. The 2019 SFBBO Annual Report(6) came to the following conclusion:

> The study indicated that oyster shell habitat enhancement increased Snowy Plover nest abundance and nest success within treatment areas. With these findings as support, 20.23 hectares of oyster shell were spread in two plots (Western = 6.47 ha; Eastern = 13.67 ha) as a large-scale habitat enhancement project in September of 2014 at Eden Landing pond E14. Subsequent monitoring has shown that the oyster shell enhancement plots can attract a large number of Snowy Plovers to breed (87 nests in 2019), but have not significantly improved nest success to date."

However, that same report included under a list of recommendations:

> "Addition of oyster shell or other materials such as gravel at RSF2 cell 3, R3, and R1-2 could partially mitigate against depredation related to potential high-density Snowy Plover breeding following breaching of R4…"

The 2024 SFBBO Annual Report(7) makes a similar recommendation, " Addition of oyster shell and/or gravel, removal of all remaining perches at SF2 cell 3 and R3 could help to mitigate increased predation risk related to increased Snowy plover nesting density following breaching of R4," and therefore, "…could also result in improved breeding success." The mitigation measures proposed in the DEIR include both the addition of oyster shell and/or gravel to the pond bottoms of ponds SF2

and R3, as well as removing any remaining elevated structures to the extent possible, adding avian perch deterrents to PG & E transmission towers and increasing funding for predator management."

[Comment Footnotes:

(6) Pearl, Ben, Anqi Chen and Yiwei Wang. 2019. *Western Snowy Plover Monitoring in the San Francisco Bay, Annual Report 2019.* San Francisco Bay Bird Observatory.
(7) Schwarz, Maddy, Katie LaBarbera and Josh Scullen. 2024. *Western Snowy Plover and California Least Tern Monitoring in the San Francisco Bay, Annual Report 2023*. San Francisco Bay Bird Observatory.]

Response CCCR-22

The information presented in the comment summarizing information from SFBBO reports is correct, and the comment has been acknowledged. Much of what the comment refers to as mitigation is proposed as part of the SAFER Bay Project (e.g., refer to the description of substrate enhancement in Draft EIR Section 2.4.1) rather than as mitigation measures. The comment does not affect the analysis or conclusions in the Draft EIR.

Comment CCCR-23

- "Will funding be available to deploy oyster shell and/or gravel across the pond bottoms of ponds R3 and SF2?
- Based upon consultations with PG & E, is it likely that predator perch deterrents can be added to the many power transmission towers that exist within proximity to ponds R3 and SF2, and will funding be available to implement this mitigation measure?."

Response CCCR-23

The SAFER Bay Project Team will determine the source of funding for implementation of oyster shell and/or gravel crypsis enhancement and predator perch deterrents as the Project planning process proceeds. The SAFER Bay Project Team will consult with Pacific Gas and Electric Company (PG&E) to identify suitable perch deterrents for the towers within proximity to ponds R3 and SF2.

Comment CCCR-24

"Expansion of borrow ditches in ponds R3 and SF2 are proposed as a mitigation measure to provide foraging habitat for adult and juvenile SNPL, but also to serve as terrestrial predator deterrents and also as a deterrent against illegal trespass onto the pond bottom. AppBIO1 discusses at a programmatic level, two options for managing water surface elevations in the SF2 Pond Complex:

1) the installation of a permanent pumping system that is capable of pumping water in and out of the pond complex [higher upfront costs], or
2) utilizing a portable pump and "hiring a pumping company to manage the water surface elevation during the nesting season and for weed management [lower upfront costs and no maintenance obligations].

The DEIR also states, "During the next phase of design, both options will be discussed with all interested parties, and a preferred option will be selected."

- How would the need for a permanent need, until some unknown date into the future, "for a contract with a private company for service" be structured to ensure that there is no lapse in what is a crucial component of managing the SF2 pond complex for SNPL?

- There would likely need to be a dedicated funding source, and responsible entity for overseeing the contract – where would the funds come from and who would the responsible entity be? SAFER? USFWS? The local governments benefitting from the SAFER project?
- Is there a similar requirement for management of water surface elevations in R3?
- With respect to the perimeter borrow ditch in pond R3, please provide a figure that more clearly depicts the alignment of the expanded borrow ditch in the northeastern corner of the pond.
- **[Refer to map on page 14 of this comment in Appendix RTC-1]** Does the green arrow indicate where the expanded borrow ditch adjacent to ponds R5/S5 intersects with the borrow ditch that runs along the All-American Canal levee?
- Will the expanded borrow ditch width, and management of water surface elevations be sufficient to reduce instances of illegal trespass into pond R3?"

Response CCCR-24

The comment incorrectly asserts that borrow ditches are proposed as a mitigation measure. As described in the *Project Description* (beginning on Draft EIR page 2-47), borrow ditches are proposed as part of the Project, consistent with the Project objective to *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*. Similarly, the Project includes a new pump station and hydroperiod management approach, which are proposed as part of the Project (Draft EIR pages 2-10–2-13).

We acknowledge points made for the pumping options for SF2 water management. The ability to effectively manage Pond SF2 water levels in perpetuity are fundamental to the Project's proposed WSP habitat enhancement plan, which is why pumping is included as part of the SAFER Bay Project. Regarding Project funding, please refer to **Response CCCR-125**. The Refuge currently manages Pond SF2 water levels and would continue to do so. The SAFER Bay Project Team will collaborate with the Refuge to evaluate the pros and cons of a permanent pump station versus a portable pump rental contract and select the preferred option during the forthcoming detailed design process. The logistics of the portable pump option will be evaluated during this process. This operational detail does not affect the evaluation of foreseeable impacts in the EIR.

Water levels in R3 are managed via existing flap gates that are operated by the Refuge. Refer to **Response BCDC-29** regarding existing and with-Project water management in Pond R3.

Draft EIR Figure 2-4b (page 2-12) clearly identifies where the borrow ditch would be expanded in Pond R3. The green arrow on the modified Figure 13 presented in the comment indicates where the expanded borrow ditch adjacent to Ponds R5/S5 intersects with the borrow ditch that runs along the All-American Canal levee. The excavated and widened borrow ditch along the south side of Pond R3 will be sufficient to discourage illegal trespass onto the pond.

Comment CCCR-25

"The 2016 SFBBO Annual Report[8] states:

> "At pond R4 on Refuge property on two separate occasions, pedestrians trespassed beyond the locked gate and onto the levee next to the bay. Over the course of the breeding season, three

drones were retrieved from the pond bottom of R4. All of these actions would have disturbed Snowy Plovers in adjacent areas and could have resulted in trampling of nests or chicks."

The 2018 Annual Report[9] documents trespass in the Ravenswood Complex:

"At Ravenswood, pedestrians were occasionally seen trespassing into restricted areas. At R4, a pedestrian walking two off-leash dogs was observed trespassing onto the Bayfront levee. On another occasion, several kids were observed riding bikes near the borrow ditch adjacent to the Bayfront levee, but were gone before SFBBO staff could speak with them. All of these incidents of trespass could have disturbed breeding Snowy Plovers."

The 2019 SFBBO Annual Report[10] includes other instances of trespass:

"On several occasions we directly observed or found evidence of humans trespassing in plover habitat closed to the public. At Ravenswood, pedestrians were consistently seen trespassing onto the bay levee on R4 and onto the R5S pond bottom adjacent to Highway 84."

And in the 2020 SFBBO Annual Report[11] and 2021 SFBBO Annual Report[12]

"At Ravenswood, pedestrians and cyclists were frequently observed trespassing into sensitive habitat on restricted levees, including at R3, R4, and the All-American Canal."

A recommendation made in the 2013 SFBBO Annual Report[13] is that

"Managers should also consider low fencing such as is present at SF2 to keep Snowy Plover chicks off of pedestrian trails and roads. Overall, larger tracts of land may need to be kept free of public access entirely, in order to accommodate sensitive species, such as Snowy Plovers."

- Pond R3: will fencing be installed along the Bay Trail? This will not address the issue of the use of drones, which is prohibited on Refuge lands, as well as at Bedwell Bayfront Park, but it will help reduce the amount of illegal trespass."

[Comment Footnotes:

8. Pearl, Ben, Karine Tokatlian and Josh Scullen. 2016. *Western Snowy Plover Monitoring in the San Francisco Bay, Annual Report 2016.* San Francisco Bay Bird Observatory.
9. Robinson-Nilsen, Caitlin, Karine Tokatlian, Josh Scullen and Catherine Burns. 2013. *Western Snowy Plover Monitoring in the San Francisco Bay, Annual Report 2013.* San Francisco Bay Bird Observatory.
10. Pearl et al 2019
11. Pearl, Ben, Anqi Chen and Yiwei Wang. 2020. *Western Snowy Plover Monitoring in the San Francisco Bay, Annual Report 2020.* San Francisco Bay Bird Observatory.
12. Pearl, Ben, Anqi Chen, Parker Kaye and Yiwei Wang. 2022. *Western Snowy Plover Monitoring in the San Francisco Bay, Annual Report 2021.* San Francisco Bay Bird Observatory.
13. Robinson-Nilsen, Caitlin, Karine Tokatlian, Josh Scullen and Catherine Burns. 2013. *Western Snowy Plover Monitoring in the San Francisco Bay, Annual Report 2013.* San Francisco Bay Bird Observatory.]

Response CCCR-25

It will not be necessary (and it is not proposed as part of the SAFER Bay Project) to install a fence along ponds R3 or SF2, as the excavated and widened borrow ditch adjacent to trails will keep pedestrians out of ponds R3 and SF2. In addition, the South Bay Salt Ponds Restoration Project (SBSPRP) has installed fencing to prevent access to sensitive areas, including along the All-American canal levee along the north side of Pond R3 and at Pond SF2 near the public viewing platform at the terminus of the public trail.

Comment CCCR-26

"Mitigation Measure BIO-14: General Wildlife Impact Minimization Measures states

> "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."

This distance should be increased to 600 feet. Several of the SFBBO Annual Reports state the following.

> "Snowy Plovers in the South Bay are very sensitive to recreational disturbance and flush from their nests when walkers are at an average 164 meters when approached directly, or 145.6 meters when passed tangentially (Robinson 2008 and L. Trulio, pers. comm.)."

Given the exponential reduction in the nesting habitat available for SNPL nesting, and the many identified threats to nesting threats that have been identified, the proposed distance of 300 feet is not supportable if one of the goals is maintain a reproductively viable population of SNPL within the Ravenswood pond complex."

Response CCCR-26

All public trails at ponds SF2 and R3 are separated from suitable WSP habitat by water, which limits the ability of humans to cause disturbance. Monitoring by San Francisco Bay Bird Observatory (SFBBO) throughout the South San Francisco Bay, including at the Ravenswood Pond Complex, has found that WSP react less when there is water between them and a source of disturbance. Furthermore, where there is high public use along trails where no water is present, including at Franks Dump in Hayward Shoreline and Crittenden Marsh/Stevens Creek Shoreline Nature Study Area, WSP have been documented to nest much less than 300 feet from busy trails with no apparent issues. Therefore, keeping a buffer of 300 feet between public trails and WSP breeding habitat will both prevent impacts on WSP and maximize the remaining area in these ponds to support their breeding.

Comment CCCR-27

"SNPL Nest Success

As can be seen from Table 1 (Joint Letter Exhibit C), that summarizes the nest data available from the SFBBO Annual Reports from 2008 (the year that active monitoring of the Ravenswood Pond Complex began) until 2023, the ponds with the highest number of successful nests are highly variable within the complex of ponds R1, R2, R3, R4, R5, and SF2. Of the years the ponds were monitored, the highest total number of detectable nests occurred in 2023 in pond R3 at 35 nests, followed by SF2 in 2010 with a total number of 33 nests detected, followed by SF2 in 2017 with a total number of 32 nests detected and R4 in the same year with a total number of 30 nests detected, and pond R4 in 2015 with a total number of 30 nests detected. However, the total number of nests detected does not provide an adequate representation of nesting success. For example pond R3, in 2023, only had a 54% nest success rate with 15 nests depredated and one nest lost for unknown reasons. In 2010, even though it had the highest number of detected nests within the Ravenswood Pond Complex, SF2 only had a 67% nest success rate with 11 nests depredated or abandoned. Within the Ravenswood Pond Complex, in most years, R1 had the lowest rates of depredation and SF2 consistently had some of the highest rates of depredation. Several of the SFBBO Annual Reports documented the observations of flocks of American Crows and Common Ravens "walking and scavenging of the pond bottom [of SF2] (2009, 2010, 2018, 2019, 2020)."

Response CCCR-27

WSP hatching success has been variable in the Ravenswood ponds in recent years, in part due to predator activity. In most years, fledging success has also been poor due to predation and foraging habitat availability. Increasing crypsis on the pond, better water management, and increased predator management (proposed as part of the Project and described in Draft EIR Section 2.4.1 and the Habitat Restoration Basis of Design Report, Appendix BIO3) would improve hatching and fledging success.

Comment CCCR-28

"The DEIR fails to adequately mitigate four significant impacts of the SAFER project on SNPL at the programmatic and project level, that are identified by the SFBBO Annual Reports:

- Significant loss of SNPL nesting habitat
- Increasing nest density may lead to increased predation
- Increasing nest density may result in interspecies aggression
- Timing of SF2 and R3 enhancements and work proposed in R1 and R2

Significant Loss of SNPL Habitat Within the Ravenswood Complex

For the record, we recognize that maintaining pond R1 as a managed pond is extremely difficult due to the ongoing required maintenance of the R1 outboard levee. However, the loss of this pond for nesting SNPL is significant, in years when the pond bottom dries sufficiently to support SNPL nests, R1 has had the lowest rates of nest depredation and the highest rates of successful nests.

The 2016 SFBBO Annual Report[(14)] observes

> "With Phase 2 actions of the SBSPRP set to effectively reduce Snowy Plover habitat in the Ravenswood complex by 27% [pond R4 restored to tidal action], it is vital that vegetation and water level management be controlled at ponds R1, R2, R3 and RSF2 in order to provide the maximum amount of quality Snowy Plover nesting habitat. In addition, potential habitat enhancement and water control structure improvements at R3 should help to offset the loss of Snowy Plover habitat in R4 and R5." [emphasis added]

The 2019 SFBBO Annual Report[(15)] states

> "With the impending tidal restoration of pond R4-5S in the Ravenswood Complex as part of Phase 2 of the Project, approximately 27% of currently available Snowy Plover breeding habitat in the Complex will be opened to tidal action. Based upon the large amount of Snowy Plover nests found in the Ravenswood Complex in recent years, we expect that post-restoration, R3, RSF2, and R1-2 will consistently host a larger amount of Snowy Plover breeding." [emphasis added]

And

> "Further enhancement of RSF2 and R1-2 for Snowy Plover breeding, including spreading of a camouflage enhancing substrate (oyster shells, gravel, etc.) and removal of remaining predator perches, could also help to offset the loss of R4." [emphasis added]

However, the 2019 SFBBO Annual Report warns

> "It will be critical to enhance remaining Snowy Plover breeding habitat at R3, R1-2, and RSF2 to account for the higher density of breeding that will likely occur in these areas. A reduction in habitat size could result in increased predation pressure at the Ravenswood Complex, especially

> by American Crows and Common Ravens, both of which have been frequently observed in the Complex in recent years and believed to be major nest and chick predators. Increased development adjacent to these restoration sites artificially inflates commensal predator populations such as skunks, feral cats and Common Ravens by supplying new food resources, while also confounding predator management opportunities in locations with high visitor use. Without enhancement and informed predator control efforts, population growth at one of the most important breeding sites in Recovery Unit 3 could be impeded." [emphasis added]

It is evident that the loss of pond R4 is considered a significant impact to available SNPL breeding habitat within the Ravenswood Complex. The proposed opening of ponds R1 and R2 to tidal action will further exacerbate the losses of SNPL habitat and raises uncertainty of the continued viability of the Ravenswood Complex as one of the "most important breeding sites in SNPL Recovery Unit 3."

In 2021,(16) pond R1 had the highest nest success:

> "While zero banded chicks fledged from SF2 or R3 [the ponds that will remain after implementation of the SAFER project], at least ten banded chicks fledged from both R1 and R4. With an estimate of 43% chick fledging rate and 1.25 chicks fledged per male (n=23, Table 10), R1 appeared to provide the best habitat for chicks to fledge in Ravenswood, as well as some of the best in RU3. This pond dried out to its greatest extent since at least 2013, with some small stretches of the borrow ditch drying up completely in June and July. With a greater amount of area to search, this may have reduced the ability of predators to find chicks, which blend in with the large, lightly colored pond bottom." [emphasis added]

In 2023(17) R1 once again had the highest nesting success in the Recovery Unit:

> "Elsewhere in Ravenswood, R1 continued to be a unique pond for Snowy Plover nesting. In 2021 R1 appeared to provide the best nesting habitat in the Complex, with a 100% hatch rate (n=13). However, due to predation and flooding, the pond did not provide similarly high-quality habitat in 2022, with only 45% of monitored nests (n=22) determined to have hatched. However, in 2023, it was again very successful, with an 87% hatch rate (n=17), the highest in the complex and the highest in the South Bay overall."

Loss of pond R1 is a significant adverse impact to the long-term breeding success of SNPL that has not been adequately analyzed or mitigated. The DEIR acknowledges the impact by stating

> "Loss of Ponds R1 and R2 would result in the loss of an average of approximately 12 nests per year, but up to approximately 34 potential nests per year, which represents the sum of the maximum number of nests documented in these two ponds."

Table 3.4-6 Western Snowy Plover Nests by Pond, estimates that post-project would be 42 nests. The DEIR acknowledges and proposes to mitigate pond management issues such as the need to manage the development of vegetation on the pond bottom, the need to seasonally manage water levels, and the significant predation pressure and proposes mitigation measures to address these impacts, as discussed earlier.

Higher Nest Densities and Potential Increases in Depredation and Interspecies Aggression
However, reducing available SNPL breeding habitat could result in higher nesting densities, and higher nesting densities could result in higher rates of depredation. The 2010 SFBBO Annual Report(18) provides the following observations and concerns:

> "We recorded highest nest density in the South San Francisco Bay within a shell plot on E8 in 2010 which was spread in 2008. Of the 11 nests in this plot, nine were depredated and two

hatched. Overall nest density in shell plots was much higher than the average for the South Bay. This has important implications as the amount of available nesting habitat on salt ponds is reduced by the South Bay Salt Pond Restoration Project. Snowy Plover nesting density will need to increase in order to increase the Snowy Plover breeding population within a smaller habitat footprint. The nest densities observed within the oyster shell plots demonstrates that it may be possible to achieve the higher nest densities needed to reach the recovery goal of 500 breeding birds in the San Francisco Bay. However, in 2010, observed nest success within the shell plots (32%) was no different than nests outside of the shells (31%) at Eden Landing and the proportion of depredated nests was very similar as well (64% in the shell plots compared to 66% outside of the shell plots). In contrast, in 2009, the percentage of depredated nests within the shell plots (8%) was much lower than the rest of the nests at Eden Landing (44%; Robinson-Nilsen et al. 2009b). Page et al. (1983) found that plovers nesting in higher densities had higher depredation rates at Mono Lake. Likewise, it is possible that predators cued in on the presence of the shells plots as a food source. If this is the case, then, oyster shells may eventually function as an ecological trap by attracting many nesting plovers to a low-quality habitat. It is also possible that the reduced predator removal effort at Eden Landing may have contributed to the decreased success as well." [emphasis added]

- Will sufficient funding exist to treat the pond bottoms of SF2 and R3 with oyster shell and/or gravel? Will funding exist to replace the pond bottoms treatment as needed? The SFBBO Annual Reports mention that the treatment may need to be replaced as shells get covered by sediment, etc.
- The DEIR proposes predator management. SF2 and R3 are located in highly visible areas, will predator management be possible? The EIR should also address how predator management will be funded in the long-term.
- Hasn't predator management been in place in SF2? SF2 still experiences one of the highest rates of depredation in the Ravenswood Complex. How will the efficacy of predator management be significantly improved?

In addition to the concern that higher nesting densities lead to higher rates of depredation, there is also the concern that higher nesting densities for SNPL and other resident waterbirds, will result in increased occurrences of interspecies aggression.

In 2016[19] interspecies aggression between SNPL and American Avocets was observed on several occasions usually between SNPL and American Avocet adults:

"On several occasions, biologists observed aggression between American Avocet adults and Snowy Plover adults and chicks. Similar behavior was also observed between American Avocets and an incubating Snowy Plover adult in Ravenswood pond R4.

The 2017 SFBBO Annual Report[20] observes

"In 2017, a wet winter resulted in relatively little available breeding habitat to start the season, and we observed increased interspecies aggression. Snowy Plovers may need to have quality habitat spread throughout the bay to minimize these effects." [emphasis added]

And

"…we found Snowy Plovers nesting in very close proximity to numerous species, including American Avocets, Black-necked Stilts, and Caspian Terns. As a result of this close nesting, we observed fifteen separate aggressive physical interactions between Snowy Plovers and other species (Table 12)."

The SFBBO Report also raised the concern that interspecies aggression could result in increased depredation:

> "Within this same area [pond R4], we also observed numerous American Avocet and Black-necked Stilt nests. On April 27, a Snowy Plover pair was chased by an adult avocet with a nearby brood. Later that same morning, we observed two separate instances of Snowy Plover females charging a Black necked Stilt. In one instance, an incubating female plover charged a nearby stilt, while in the other instance, a paired female charged a nearby stilt. In all three cases, the elevated level of activity could have attracted the attention of predators, and with the adult birds distracted resulted in depredation of adults, nests, or chicks of all three species." [emphasis added]

Contingency Measures Must Be Proposed That Will Address Declines In SNPL Recruitment
The challenges of maintaining successful SNPL nesting within the Ravenswood Complex, amplifies the need for development of viable, enforceable, sustainable contingency measures such as acquisition of suitable habitat, restoration of suitable habitat, or enhancement of existing and suitable habitat. The 2023 SFBBO[21] Annual Report warns

> "Our research over the past nine years at E14 highlights that "placing all the eggs in one basket" is not an effective long-term strategy for meeting recovery goals. Adaptive management strategies on SBSPRP land to balance tidal restoration with Snowy Plover needs, despite the increased cost of managing ponds and future concerns about sea level rise adaptation, could serve as a positive example for other landowners.
>
> Thus we recommend that Refuge biologists and USFWS Snowy Plover Recovery Leads continue to promote enhancement, management, and maintenance of Snowy Plover habitat on SBSPRP land, and encourage the Bay Delta Fish and Wildlife Office and landowners to increase efforts to identify suitable habitat in the rest of RU3 that can be enhanced or managed for breeding Snowy Plovers and maintain existing Snowy Plover habitat when feasible as outlined in the Recovery Plan (USFWS 2007)."

- How does SAFER propose to address this substantive concern?

Concerns Regarding the Proposed Timing of Work in Ponds R1, R2, R3, and SF2
According to the timeline provided on Table 2-4 SAFER Bay Project Implementation Schedule, construction will be occurring in all four ponds in 2029, with the R1 and R2 earthwork starting slightly in advance of the levee construction work in SF2. The levee construction is planned to be completed in early 2030, while the work in pond R1 and R2 is not planned to be completed (not including the levee breach) in early 2031. Meanwhile, the SNPL nesting habitat enhancements are not scheduled to take place and end until early 2031. This means SNPL breeding habitat will be disturbed and disrupted by construction activity in three out of four of the remaining breeding habitat ponds, and only pond R3, which is subject to impacts from human disturbance and predation, will remain undisturbed.

We urge that the project implementation schedule be re-evaluated, with input from SFBBO if that has not already occurred. It would make more sense for the habitat enhancements in R3 be implemented first, followed by the work in SF2, and then R1 and R3. We understand that there is a desire to quickly implement the alterations in ponds R1 and R2 so that the ponds can be breached, however, the current implementation schedule could result in significantly reduced SNPL nesting success in the Ravenswood Complex.

- The DEIR states that, with habitat enhancement, Pond R3, "…*should be able to support much higher nesting densities…*" of Snowy Plovers (page 3.4-21). Nesting enhancements for WSP

> on R3 must be implemented, and higher nesting densities must be documented, prior to the proposed levee breaches of Ponds R1 and R2.

Similar to the concerns we have expressed, the 2017 SFBBO Annual Report[(22)] recommended the following:

> "As Phase II of the Project will enhance pond R3 for plover nesting habitat while breaching other pond R4 in the same complex, we advocate for nesting habitat enhancement to occur prior to breaching. This will help to ensure that there is high quality nesting habitat available to Snowy Plovers when overall habitat availability decreases. Prior to construction, we recommend further enhancement of RSF2 for Snowy Plover breeding, potentially including spreading of oyster shells, removal of remaining predator perches as possible, and installation of chick shelters or other materials to provide cover at foraging sites. During construction, we urge managers to provide nesting habitat in areas adjacent to those ponds being drained for construction (for example, R1 and R2)." [emphasis added]

SNPL Comment Conclusion
Contrary to the DEIR determination that the programmatic and project level impacts to Western Snowy Plover will be reduced to a level that is less than significant with implementation of the proposed mitigation measures, the SAFER project at the programmatic and project levels of review could have significant adverse impacts to the long-term nesting success of SNPL within the Ravenswood Complex."

[Comment Footnotes:

(14) Pearl et al. 2016.
(15) Pearl et al. 2019
(16) Pearl et al. 2021.
(17) Schwarz et al. 2024.
(18) Robinson-Nilsen, Caitlin, Jill Bluso Demers and Cheryl Strong. 2010. *Western Snowy Plover Numbers, Nesting Success, Fledgling Success and Avian Predator Surveys in the San Francisco Bay, 2010*. San Francisco Bay Bird Observatory.
(19) Pearl et al. 2016
(20) Pearl et al. 2017
(21) Schwarz et al. 2024
(22) Pearl et al. 2017]

Response CCCR-28

The Project recognizes that the area of potentially suitable WSP breeding habitat in the Ravenswood Pond Complex was reduced by the SBSPRP's breaching of Pond R4 in 2023, and planned breaching of ponds R1 and R2 as part of the Project would further reduce the extent of suitable habitat. The habitat restoration proposed as part of the Project addresses the loss of reproductive success rather than the loss of habitat because there are no viable opportunities to create WSP habitat elsewhere to offset the loss of habitat in ponds R1 and R2, and because increasing reproductive success would offset the effects of habitat loss on the WSP population. The SFCJPA's wildlife biologists (including Benjamin Pearl cited above) are confident that there will remain enough suitable habitat in ponds R3 and SF2 to support breeding WSP in similar or greater numbers and with greater reproductive success.[18] For this to occur,

[18] Refer to Report Preparers on page iii of Appendix BIO3 for a list of wildlife ecologists, restoration ecologists, engineering hydrologist and restoration design engineers involved in the Project's habitat restoration design.

nesting density in these ponds will increase. The Draft EIR (page 3.4-20) outlined how the amount of nesting activity in Pond SF2 has fluctuated over the years:

> Since 2012 (the first breeding season after pond reconfiguration and island construction under the South Bay Salt Pond Restoration Project was completed), Pond SF2 on average has supported a moderate amount of nesting activity (11.5±10.2 nests per year from 2011–2023). After implementing the SF2 western snowy plover habitat enhancements, Pond SF2 would provide approximately 110 acres of high-quality western snowy plover nesting habitat (refer to **Table 3.4-7**)

The Draft EIR assumed that nesting density would increase to approximately that observed at Eden Landing Ecological Reserve when large-scale shell enhancement was implemented there, and at a similar density to what has been observed at Pond SF2 in the past (page 3.4-20):

> We expect that this would result in a high nesting density in the pond (0.13 nests/acre), similar to that observed in 2015 at Pond E14 in Eden Landing Ecological Reserve nearby in Hayward when 55.0 acres of oyster shell enhancement were added to 7.4 acres of preexisting oyster shell plots.19 Although this is a higher nesting density than has been previously reported in Pond SF2, in 2017, cell U3 supported 32 nests with a nesting density of 0.10 nests/acre.20 This calculation did not exclude 11.4 acres of habitat within 300 feet of the transmission power towers where western snowy plover nests have never been located, and thus the functional nesting density in Pond SF2 cell U3 in 2017 likely exceeded 0.13 nests/acre.

With higher nesting density in both ponds R3 and SF2, the Draft EIR estimated that these ponds would support a total of approximately 105 nests per year, compared to 56±27.9 nests supported in the Ravenswood Pond Complex from 2011-2023 (Table 3.4-6, Draft EIR page 3.4-39).

The SAFER Bay Project Team's wildlife ecologists also understand that reducing the amount of suitable habitat and increasing the WSP nesting density could potentially affect breeding success. However, breeding success in the Ravenswood Pond Complex has been highly variable in recent years, and the amount of suitable habitat does not always correlate with breeding success. As the comment noted, in 2021 Pond R1 provided high quality brood rearing habitat. At least 10 out of 23 banded chicks survived to fledge (43 percent fledging success), resulting in a ratio of 1.25 chicks fledged per male.[21] In that same year, Pond R4 provided moderate quality breeding habitat, with at least 10 out of 31 banded chicks surviving to fledge (32 percent fledging success) and 0.83 chicks fledged/male. Only three chicks were banded in both Pond R3 and Pond SF2, and although none were confirmed to have fledged, the low sample size does not allow for drawing strong conclusions. Nesting densities in the Ravenswood Pond Complex (R1=0.02, R3=<0.01, R4=0.03, SF2=<0.01) were all lower than the average of 0.06 nests/hectare observed across all South Bay ponds where WSP breeding was monitored. In 2021, Pond E14 at Eden Landing Ecological Reserve, consistently one of the most important WSP breeding sites in the Bay Area, had low fledging success (17 percent, n=23, 0.5 chicks fledged/male) and higher nesting

[19] Pearl, B., K. Tokatlian, and J. Scullen, 2016. *Western Snowy Plover Monitoring in the San Francisco Bay.* Annual Report 2015. Prepared by the San Francisco Bay Bird Observatory for the Don Edwards San Francisco Bay National Wildlife Refuge and the California Department of Fish and Wildlife.

[20] Pearl, B., and A. Chen, 2018. *Western Snowy Plover Monitoring in the San Francisco Bay.* Annual Report 2017. Prepared by the San Francisco Bay Bird Observatory for the Don Edwards San Francisco Bay National Wildlife Refuge and the California Department of Fish and Wildlife.

[21] Pearl, B., A. Chen, P. Kaye, and Y. Wang, 2022. *Western Snowy Plover Monitoring in the San Francisco Bay Annual Report 2021*. San Francisco Bay Bird Observatory. Milpitas, CA.

density (0.08 nests/ha). In 2022, breeding success throughout the Ravenswood Pond Complex fell. At Pond R1, only 29 percent of banded chicks (n=17; 0.71 chicks fledged/male) survived to fledge. Breeding success was worse at ponds R3 (8 percent fledging success; n=40; 0.35 chicks fledged per male) and R4 (13 percent fledging success; n=47; 0.35 chicks fledged per male).[22] Breeding density at the Ravenswood Pond Complex (R1=0.04, R3=0.05, R=0.06, SF2=0.01) were again lower than the South Bay average of 0.07 nests/ha. Conversely, Pond E14 had the highest fledging success in the South Bay among ponds where at least 40 chicks were banded (55 percent fledging success; n= 40; 1.29 chicks fledged per male), and higher nesting density (0.1 nests/ha) than the South Bay average. These data indicate that although the Ravenswood Pond Complex has at times provided productive WSP breeding habitat, that is not always the case. Furthermore, the area of suitable habitat and corresponding density of nesting is not intrinsically linked to breeding success. Several factors play a role in the quality of WSP breeding habitat, including the availability of crypsis on the pond to support vulnerable chicks, foraging habitat quality and extent, and frequency of predator management. The Project will address all three of these criteria in ponds R3 and SF2 by spreading oyster shells and/or gravel to provide crypsis throughout both ponds; creating high quality foraging habitat throughout Pond SF2 and excavating a portion of borrow ditch in Pond R3 that will facilitate more effective water management; and providing funding for increased predator management to adequately reduce predation, as described in the Habitat Restoration Basis of Design Report (Draft EIR Appendix B).

The comment noted that, based upon SFBBO's observations of oyster shell treatment plots at Eden Landing Ecological Reserve, funding may be needed to replenish oyster shell and/or gravel enhancement due to sedimentation. Sedimentation over oyster shell plots was not observed by SFBBO to occur universally at all oyster shell treatment plots, but rather at select treatment plots in ponds E6B, E8, and E14.[23] Ponds E6 and E8 were annually inundated to provide waterfowl hunting opportunities, while Pond E14 was intermittently flooded up to that point. Since then, SFBBO has found that occasional pond inundation does not result in sedimentation over oyster shell plots, especially when water is transferred from internal ponds rather than directly from tidal sloughs that may be more sediment laden, as was the case at ponds E6B and E8 where water was directly transferred from North Creek.

The comment also noted that predator management already occurs at Ponds R3 and SF2. Predator management is implemented at these locations by the USDA-APHIS Wildlife Services, who have extensive experience conducting predator management activities at public locations throughout the San Francisco and Monterey bays. Current funding for predator management is provided by the Refuge; however, because funding to support predator management is split between the Refuge, VA Alameda Point Least Tern colony, and Salinas River National Wildlife Refuge at Monterey Bay, the level of effort at Ponds R3 and SF2 is generally low. As a result, problematic nest and chick predators may remain unchecked throughout the most critical times of the breeding season, resulting in low hatching and/or fledging success. Therefore, as described in the Habitat Restoration Basis of Design Report (Appendix BIO3), increased funding for predator management at these two ponds will allow for more frequent predator management that will adequately reduce predation and result in increased hatching and fledging

[22] Pearl, B., P. Kaye, and J. Scullen, 2023. *Western Snowy Plover Monitoring in the San Francisco Bay Annual Report 2022*. San Francisco Bay Bird Observatory. Milpitas, CA.

[23] Pearl, B., K. Tokatlian, and J. Scullen, 2016. *Western Snowy Plover Monitoring in the San Francisco Bay Annual Report 2015*. San Francisco Bay Bird Observatory. Milpitas, CA.

success. Funding will continue to be provided by the Refuge, and the annual amount and duration of funding provided by the Project will be determined during the regulatory permitting process.

The Project will allow for improved water management at Pond SF2 via a pump station, widened and deepened borrow ditches, and reconfigured interior foraging channels. As a result, the Refuge will be able to manage water levels to provide ample breeding and foraging habitat for WSPs, American avocets, and black-necked stilts to nest in both ponds throughout the breeding season. Doing so will reduce the frequency of interspecies aggression that has been observed on rare occasions in ponds R4 and SF2 when limited available nesting habitat resulted in multiple species nesting in proximity.

The proposed enhancements in ponds R3 and SF2 constitute considerable investment in WSP conservation, and show that the Project, in close collaboration with the Refuge and SBSPRP, is attempting to balance tidal marsh restoration and pond management to support breeding WSP. The location of the levee in Pond SF2 will ensure that this pond will continue to support breeding WSP for many years to come despite the challenges of sea level rise. Although the Project is not responsible for how landowners choose to manage their lands, we note that other landowners are also engaged in finding a balance between restoring tidal marsh and supporting breeding WSP on their lands, including the Midpeninsula Regional Open Space District at Stevens Creek Shoreline Nature Study Area and the East Bay Regional Parks District at Hayward Regional Shoreline.

Pursuant to the Project implementation schedule presented in Table 2-4 of Chapter 2, *Project Description*, WSP enhancements will be implemented in ponds R3 and SF2 prior to ponds R1 and R2 being breached.

The comment stated that "Contrary to the Draft EIR determination that the programmatic and Project level impacts to western Snowy Plover will be reduced to a level that is less than significant with implementation of the proposed mitigation measures, the SAFER Project at the programmatic and Project levels of review could have significant adverse impacts to the long-term nesting success of SNPL within the Ravenswood Complex." The Draft EIR thoroughly analyzed impacts on WSP, including reviewing past nesting and estimating how nesting density would change based upon data from other WSP habitat enhancements. With implementation of oyster shell and/or gravel enhancement, improved water management, and increased funding for predator management, as described in Draft EIR including Appendix BIO3, impacts on the WSP due to predation will be adequately reduced and will be less than significant.

Comment CCCR-29

> **"Mitigation Measure BIO-18: Breeding Season Colony Buffers for Colonial Nesting Birds**
> The mitigation measure proposes that "no construction or operation and maintenance activities occur within 100 feet of an active American Avocet or Black-necked Stilt nest…"
>
> PG & E's "Nesting Birds: Species-Specific Buffers for PG & E Activities, dated November 2015[(23)] utilizes a Standard Buffer of 150 feet for these species. Due to the potential reduction in available area for nesting within the Ravenswood Complex, based upon the previously identified Implementation Schedule, we urge that the buffer for the American Avocet and Black-necked Stilt be increased to 150 feet."

[Comment Footnote:

(23) PG & E. 2015. *Nesting Birds: Species-Specific Buffers for PG & E Activities.* PG & E. https://ia.cpuc.ca.gov/environment/info/panoramaenv/fulton-fitch/Application/Appendix_E_Birds.pdf]

Response CCCR-29

Although a buffer of 150 feet is the standard buffer distance recommended by PG&E Avian Program for American avocet and black-necked stilts, the program provides a range of disturbance buffers for these species, including low to medium (25–50 feet) and medium to high (50–150 feet). Therefore, a 100-foot buffer falls within the range of a medium- to high-disturbance buffer. Furthermore, although the standard buffer implemented for these species will be 100 feet, Mitigation Measure BIO-18 will be modified to allow a qualified biologist to increase or decrease the size of the nest buffer for each species to prevent the nesting birds from altering their incubating behavior (refer to Chapter 4 of this document, *Draft EIR Revisions)*.

Comment CCCR-30

"Burrowing Owl Mitigation Measures BIO-21 to BIO-23
In October 2024 the California Fish and Game Commission approved naming the Burrowing Owl a candidate for potential listing species, as a candidate species the owl is afforded the same protections as species protected under CESA. The final decision of the Commission regarding the status of the owl was postponed until April 2026.

Section 2081 subdivision (b) of the Fish and Game Code allows CDFW to authorize take of species listed as endangered, threatened, or candidate species, if that take is incidental to otherwise lawful activities and if certain conditions are met. These authorizations are commonly referred to as incidental take permits. ITPs allow a permittee to take a CESA-listed species if such taking is incidental to, and not the purpose of, carrying out an otherwise lawful activity. Permittees must implement species-specific minimization and avoidance measures and are required to fully mitigate the impacts of the project (Fish and Game Code Section 2081[b]; Cal. Code Regs., Title 14, Sections 783.2–783.8).

Some of the proposed mitigation actions might be considered "take" pursuant to CESA and individual take permits (ITP) might be required. Certainly consultation will be required if the species is listed."

Response CCCR-30

The SAFER Bay Project Team will determine in consultation with California Department of Fish and Wildlife during the permitting process whether an Incidental Take Permit is necessary for potential Program and Project impacts on burrowing owl.

Comment CCCR-31

"Tidal Marsh Restoration in Ponds R1 and R2 and Construction of Two Colonial Sea Bird Islands in Pond R1
We appreciate the proposed creation of interior areas of higher elevation marsh refugial habitat along the slough channels of R1, especially since portions of the existing perimeter levees support recreational trails.

The Project proposes to create two colonial waterbird nesting islands to replace those that will be removed in SF2. These islands are located in the immediate vicinity of the primary breach into R1.

- It is difficult to tell from Figure 8. Seabird Nesting Island Cross Section how wide the proposed 4:1 slope is, to determine if it is sufficient to allow any chicks or not yet fledged juveniles to get back up onto the top of the island should they slide or are inadvertently pushed off. Please provide a narrative response to this issue."

Response CCCR-31

The 4:1 slope is approximately 16 feet in width, followed by a 3:1 slope for approximately 34 feet before reaching the slough channel. Semi-precocial seabird chicks that have left the nest bowl and are mobile would be capable of navigating the sides of nesting islands with these slopes.

Comment CCCR-32

- "The islands will be located in an area of potentially erosive flows. To address the issue of erosion, AppBIO1 states, "…the islands constructed in Pond R1 will be lined with 3-inch diameter rocks at 5.8 feet, which represents 2 feet above MSL under current conditions." This should be depicted on the cross section, as well as the elevation of the slough channel bottom."

Response CCCR-32

Figure 8 of the Appendix BIO3 has been amended to show the location of the 3-inch diameter rocks on the island and elevation of the slough channel bottom. Refer to Appendix BIO3-REV for revisions.

Comment CCCR-33

- "Has the Mosley Tract been surveyed for the presence of the salt marsh harvest mouse?
- If they are present in the Mosley Tract, we suggest that consideration be given to closing the two spur trails proposed on the R1 levees, during king tides to provide refugial habitat for the SMHM and roosting habitat for waterbirds."

Response CCCR-33

It is unknown if the Moseley Tract has been recently surveyed for the salt marsh harvest mouse; however, due to the presence of suitable habitat, and proximity to known occupied habitat along Ravenswood Slough and the marsh on the outboard levee of Pond SF2,[24] this species is presumed to occur in the Moseley Tract. Water levels would be unlikely to reach the top of the levee between Pond R1 and Moseley Tract in the near future; therefore, the salt marsh harvest mouse would not be expected to occur on top of the levee, and closure of trails during king tides would thus not be necessary to avoid impacts on mice The Refuge may consider seasonal closures to the R1 trail to provide refugial habitat during king tides, however, constructed nesting islands in Pond R1 would also provide high-tide roosting habitat for shorebirds during the non-breeding season.

[24] WRA, 2024. "Community Science: Supporting Salt Marsh Harvest Mouse Recovery Together." Available online at https://wra-ca.com/field-notes/environmental-trends/community-science-supporting-salt-marsh-harvest-mouse-recovery-togethe.

Comment CCCR-34

- "Among the list of physical environment conditions that will be monitored, the areal extent and condition of tidal wetlands that are adjacent to the R1 levee breaches should be monitored to identify any indirect impacts of the Project."

Response CCCR-34

The location of the breach was designed to minimize impacts due to scour in Ravenswood Slough (i.e., at the mouth of the slough), and the footprint of dredging to direct tidal flows is included as an impact. The SAFER Bay Project biologists agree that some additional scour of marsh is possible as the dredged channel adjusts to the tidal regime. As described above in **Response CCCR-17**, this will be monitored to identify any indirect effects, as part of monitoring to be described in the forthcoming Habitat Restoration and Monitoring Plan (HRMP) required under Mitigation Measure BIO-26.

Comment CCCR-35

"Mitigation Measure BIO-26: Habitat Restoration Monitoring Plan. The DEIR states this MM applies to the proposed habitat restoration activities in Ponds R1, R2, R3, and SF2. The elements to be monitored target the question of whether the physical environment is achieving success criteria, e.g. "Success criteria and associated metrics that reflect adequate conditions for use by target species."

- Who will be monitoring whether or not the "targeted species" are actually using the habitat that is being created? For example, the two islands are being created to replace nesting islands that are currently being used in SF2 by Caspian Terns, Black Skimmers, and other waterbirds (American Avocets, Black-necked Stilts, etc.).
- Who is determining target numbers for species, and assessing whether the trajectory of habitat occupation is approaching the target numbers?
- What happens if they are not?
- Similar to the impacts of interspecies aggression resulting from higher nesting densities for SNPL, how would interspecies aggression be mitigated?
- Have contingency measures been identified?
- Is there a predator management plan for colonial waterbirds?
- When will this information be available to the public for review and comment."

Response CCCR-35

The following are responses to the specific questions in this comment regarding the EIR's required mitigation measure to prepare a HRMP. The commenter's questions are in quotations followed by our responses.

"Who will be monitoring whether or not the "targeted species" are actually using the habitat that is being created? For example, the two islands are being created to replace nesting islands that are currently being used in SF2 by Caspian Terns, Black Skimmers, and other waterbirds (American Avocets, Black-necked Stilts, etc.)."

The SAFER Bay Project Team will retain a qualified biologist to conduct the 10 years of post-restoration monitoring that will be required by the HRMP.

"Who is determining target numbers for species, and assessing whether the trajectory of habitat occupation is approaching the target numbers? What happens if they are not?"

The specific monitoring metrics, success criteria and monitoring methods will be developed during preparation of the required HRMP as part of Mitigation Measure BIO-26, in coordination with agencies with jurisdiction over affected resources. The HRMP will include performance criteria and an adaptive management process that specifies how the SFCJPA will respond with input from the appropriate state and federal regulatory permitting agencies if performance criteria are not met.

"Similar to the impacts of interspecies aggression resulting from higher nesting densities for SNPL, how would interspecies aggression be mitigated?"

Black skimmer, Caspian tern, and elegant tern nesting densities on the constructed nesting islands in Pond R1 are not expected to differ from what has been observed at the colony in Pond SF2. More importantly, these species prefer to nest in dense colonies to provide communal protection for eggs and young. American avocets and black-necked stilts will continue to nest on nesting islands in Pond SF2 cell U1 and will likely also nest on reconfigured ponds SF2 cells U2-4 and R3. Therefore, it is unlikely that nesting densities for these species will increase, and interspecies aggression is not expected to be an issue.

"Have contingency measures been identified?"

Contingency measures have not yet been identified. Please see above response regarding performance criteria and adaptive management.

"Is there a predator management plan for colonial waterbirds?"

The entire Refuge, including the Ravenswood salt ponds, conducts predator management under a Comprehensive Conservation Plan that includes a USFWS-approved predator management plan, and nesting species at the Refuge benefit from predator management, as it results in the removal or deterrence of predators that may affect all wildlife. Because the Project prescribes increased predator management efforts in ponds R3 and SF2, a predator management plan will be prepared that describes how these increased efforts will adequately reduce predation, as discussed in the Habitat Restoration Basis of Design Report (Draft EIR Appendix BIO3).

"When will this information be available to the public for review and comment"

The HRMP will be prepared during the regulatory agency permitting process because it will both fulfill this CEQA mitigation requirement and will be a state and federal regulatory agency permit application requirement. We anticipate that the HRMP will be submitted to the state and federal permitting agencies (BRRIT) in 2027 and will be available for public review at that time.

Comment CCCR-36

"Tech Campus Reach

We have serious concerns about significant temporary and permanent Project impacts to the ecological and hydrological integrity of Ravenswood Slough. In the Tech Campus Reach, the narrow Ravenswood Slough tidal marsh is bordered on one side by an existing low levee behind the Meta

campus and a low berm along the State Route 84 stretch. On the other side, the marsh is bordered by the Refuge's levee that surrounds Pond R3. The Project is proposing a new FEMA levee/Bay Trail around the Meta campus and along State Route 84. The large levee base will encroach on the Ravenswood Slough tidal marsh plain, covering marsh vegetation well below the high tide line, fill a portion of the slough channel, further constrict the narrow area between the two levees, and increase tidal amplification in the area as sea level rises.

According to the NOP scoping comment letter submitted by the California State Lands Commission, portions of the Project area include State-owned sovereign land under the jurisdiction of this agency, and specifically, *"The Commission has a lease in this vicinity with the U.S. Department of the Interior, Fish and Wildlife Service including Ravenswood Slough. On August 20, 1981, the Commission authorized a General Lease – Public Agency Use, Lease No. PRC 6045.9, for the operation, management, protection, and maintenance of State sovereign land to be used in conjunction with the San Francisco Bay National Wildlife Refuge, which encompasses refuge areas in Alameda, San Mateo, and Santa Clara counties."* (DEIR Public Scoping Comments Attachment C) (Emphasis added)

Ravenswood Slough is an historic tidal marsh that is clearly valued by both state and federal resource agencies, primarily for the habitat it provides for several federal and state endangered species, the Ridgway's Rail and the salt marsh harvest mouse. The presence of these species in the area is well-documented in the DEIR.

Meta Campus

1. According to Figure 2-20, the Project would install a large levee for "habitat enhancement" by creating a transition zone on the levee's 3:1 bayward slope; however, the levee would significantly impact the narrow tidal marsh for the creation of high tide refugia that currently is available for wildlife close by on the Pond R3 levee. The Refuge will be maintaining the levee surrounding Pond R3 as sea level rises in order to protect endangered Western Snowy Plover habitat within that pond; therefore, the Refuge's levee on the other side of Ravenswood Slough will continue to provide high tide refugia for marsh wildlife, like SMHM, going forward. The 3:1 transition zone habitat is not critical for wildlife in this reach and unnecessarily destroys tidal marsh.

During the Project planning process, other less intrusive flood protection infrastructure was considered for this specific reach. The DEIR has failed to avoid or minimize significant impacts to jurisdictional wetlands and waters and endangered species habitat. This programmatic EIR (and future project-level EIR) must consider (or reconsider) flood protection infrastructure alternatives to the 3:1 bayside levee slope in this reach, such as 2:1 slopes on both sides of the levee, or flood walls.

Around the tech campus, infrastructure should be pulled back from the slough to the greatest extent possible, and measures such as moving the Bay Trail landward, or decreasing the width of the new trail to 10 feet (current trail width is approximately 7-8 feet) should also be examined. Combining flood protection infrastructure changes and modifications to the Bay Trail could greatly reduce the extent of encroachment onto the tidal marsh plain.

2. The DEIR does not address CCCR's NOP comment regarding the Option 1 floodwall design presented in the October 2016 SAFER Bay Project *Public Draft Feasibility Report*. The Option 1 floodwall design appears to greatly reduce the footprint into Ravenswood Slough on the east and north sides of the tech campus.

It seems that the smaller Option 1 footprint compared to the approximately 75-foot footprint of the Modified Footprint Alternative (based on the DEIR Figure 3.4-2n) would: 1) reduce the amount of fill in the bay, 2) preclude use of the tech campus property and thus not require the SFCJPA to

reasonably acquire, control, or have access to the site, 3) place the toe of the levee above the marsh plain, not in it, and 4) decrease the convergence of shorelines which increases tidal amplitude towards the landward end of enclosed estuaries[(24)].

Please provide an explanation as to why the Option 1 floodwall from the October 2016 SAFER Bay Project *Public Draft Feasibility Report* is not environmentally less impactful than the Modified Footprint alternative for this reach."

[Comment Footnote:

[(24)] Holleman, R. C., and M. T. Stacey (2014), Coupling of sea level rise, tidal amplification, and inundation, J. Phys. Oceanogr., 44(5), 1439–1455, doi:10.1175/JPO-D-13-0214.1.]

Response CCCR-36

Regarding the assertion that "The DEIR has failed to avoid or minimize significant impacts to jurisdictional wetlands and waters and endangered species habitat," refer to **Response CCCR-8, Response CCCR-14,** and **Response BCDC-2.**

The comment states that the EIR should consider or reconsider flood protection infrastructure alternatives to the 3:1 bayside levee slope in the Tech Campus Reach (in Ravenswood Slough), such as 2:1 slopes on both sides of the levee, or floodwalls, to reduce the amount of encroachment of the levee into the tidal marsh plain of Ravenswood Slough. The comment also recommends narrowing the Bay Trail on top of the levee (and presumably thereby narrowing the levee) as a method to reduce levee encroachment.

As discussed in Draft EIR Chapter 4, *Alternatives*, many potential alternatives were considered for the Project including a floodwall-only alternative (Draft EIR p. 4-35) and an alternative that would locate the Tech Campus Reach levee farther inland (Draft EIR p. 4-39). The floodwall design proposed in Option 1 of the October 2016 SAFER Bay Project *Public Draft Feasibility Study* and mentioned in the comment is consistent with the floodwall-only alternative screened for evaluation in the Draft EIR. All potential alternatives were screened for feasibility, ability to meet Project objectives, and ability to reduce one or more significant impacts attributable to Project implementation, consistent with CEQA requirements (Draft EIR pp. 4-1–4-2). As discussed in the Draft EIR, these potential alternatives were eliminated from further consideration. The floodwall-only alternative was eliminated due to inability to meet the following Project objectives:

- Enable adaptation to our changing climate by implementing flood protection in ways that sustain and restore marsh habitat and enhance and protect habitat for WSP, consistent with the 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.

The floodwall design would preserve more marsh in the Tech Campus Reach along Ravenswood Slough compared to the levee/floodwall hybrid design. However, the marsh in Ravenswood Slough along this reach lacks high quality refugia to support the salt-marsh harvest mouse, California Ridgway's rail, and other sensitive tidal marsh species during high tides. A floodwall would eliminate high tide refugia along the southern border of the slough, placing sensitive tidal marsh species at greater risk of predation while

also providing a perch for predators. An earthen levee would provide high quality refugial habitat, and may be easily adapted to meet future sea level rise needs, but these benefits would come at the expense of existing tidal marsh in a marsh of limited extent. Therefore, implementing the levee/floodwall hybrid design would balance limiting impacts on existing tidal marsh and improving habitat quality. As explained on Draft EIR page 4-39, locating the Tech Campus Reach levee farther inland was eliminated from further consideration due to the inability of the SFCJPA to reasonably acquire, control, or have access to the site and lack of environmental advantages compared to the Modified Footprint Alternative (refer also to **Response CCCR-125**).

As discussed in **Response BCDC-22**, the Project incorporates robust geotechnical and seismic criteria consistent with applicable USACE standards. These standards guide the evaluation of ground shaking, liquefaction, settlement, slope stability, foundation preparation, and performance of levees and floodwalls under both static and seismic loading. Based on current information available and consistent with these design standards, levees typically require slopes no steeper than 3:1 for geotechnical reasons (e.g., slope stability). In addition, in areas with sensitive marsh habitat, a 3:1 slope is more favorable for habitat transition zones.

As design progresses, additional information (e.g., from site-specific geotechnical investigations and agency consultation) may become available regarding the feasibility of steepening levee slopes, subject to geotechnical slope stability considerations and safety assurance review by USACE engineering staff.

As discussed in greater detail in **Response CCCR-92**, the state and federal guidelines applicable to the proposed levee recommend a minimum 20-foot levee crest within urban settings to support flood protection, operation and maintenance, and public safety needs. Also, as noted in Response CCCR-92, a 20-foot-wide Bay Trail on the levee would likely be the maximum trail width representing the greatest intensity of trail use. The width of the proposed levee is not driven by the width of the Bay Trail, but instead by the state and federal guidelines described in Response CCCR-92. Therefore, although a narrower trail may be allowed by the San Francisco Bay Conservation and Development Commission (BCDC) in some Project areas (as also discussed in Response CCCR-92), a narrower trail would not necessarily result in a narrower levee.

Comment CCCR-37

"Along State Route 84

Figure 3.4-2j in the DEIR shows the program-level impacts for the section of this reach that is adjacent to State Route 84. The Project proposes to construct the most massive type of levee infrastructure in this specific part of the reach, in spite of the site's significant constrictions from being wedged between the narrowest area of tidal marsh and the highway. The P-1 levee specified in Figure 2-11 has 3:1 slopes on both sides with a 20-foot-wide Bay Trail atop the levee.

The encroachment impacts from infrastructure and construction to the Ravenswood Slough tidal marsh are severe and include filling approximately 400 feet of the main slough and excavating a replacement tidal channel. The *2024 California Ridgway's Rail Surveys for the San Francisco Estuary Invasive Spartina Project*[25] reported relatively high California Ridgway's rail populations throughout Ravenswood Slough, including in this section of the reach as shown below.

[Refer to map on page 26 of this comment in Appendix RTC-1]

In light of the significant harm to jurisdictional wetlands and waters and endangered species habitat, the EIR has clearly failed to seriously consider measures to avoid and/or reduce adverse impacts.

As noted above for the other section of this reach, other flood protection infrastructure should be considered. Because of the site constraints, a flood wall would appear to be most appropriate for this 1,000-foot section, especially since wildlife using this very narrow section of marsh have access to the Refuge's Pond R3 and Pond R2 levee slopes for high tide refugia.

After evaluating measures outlined above to reduce the significant impacts to tidal marsh habitat, if any portion of the Ravenswood Slough channel will be filled and/or rerouted, the project-level EIR must include a full hydrological study of the temporary and permanent impacts to the Ravenswood Slough area landward of the channel fill and excavation. The project must ensure tidal flow to all portions of the marsh are unimpeded and adequate to sustain existing marsh vegetation."

[Comment Footnote:

(25) San Francisco Estuary Invasive Spartina Project 2024 Ridgway's Rail Report]

Response CCCR-37

The segment of reach referred to in the comment and shown on Draft EIR Figure 3.4-2j corresponds to the easternmost segment of the Tech Campus Reach. The comment stated that "In light of the significant harm to jurisdictional wetlands and waters and endangered species habitat, the EIR has clearly failed to seriously consider measures to avoid and/or reduce adverse impacts." The Draft EIR addressed impacts on the marsh in this area in multiple ways. Tidal marsh restoration in Ponds R1 and R2 proposed as part of the Project is included to address impacts on tidal marsh in this area, as well as throughout the Project and Program areas. In Appendix BIO3, *SAFER Bay Habitat Restoration Basis of Design*, the Project identified the location of a replacement channel in this section of Ravenswood Slough because the levee would affect the primary channel of the slough. The slope along this stretch of levee would be revegetated with tidal salt marsh along the lower portion of the levee to provide foraging and refugial habitat for the salt-marsh harvest mouse, and grassland along the upper parts to facilitate levee maintenance and inspections.

A floodwall would reduce tidal marsh impacts; however, it would also eliminate high- tide refugia for tidal marsh species along the tidal marsh-upland edge. The area of Ravenswood Slough that would be permanently affected by levee construction in this segment of the Tech Campus Reach provides low-quality habitat for the California Ridgway's rail due to its narrow extent, high disturbance being located next to State Route (SR) 84, and lack of marsh mounds along slough channels that are lined with marsh gumplant (*Grindelia stricta* var. *angustifolia*) that provide foraging and refugial habitat. Constructing a traditional levee in this section would create more high tide refugia and would be more adaptable to future sea level rise. Although Ravenswood Slough in general suffers from a high perimeter-area ratio that enables mammalian predators to easily access the marsh, and thus provides only moderate-quality habitat, the highest quality portions of the marsh are found farther away from SR 84 and contain marsh gumplant-lined slough channels. Ridgway's rail surveys conducted by the Invasive Spartina Project in 2024 indicate that it is these areas, rather than the areas that would be permanently affected by levee construction, that support Ridgway's rails. Further information regarding the rationale for the proposed levee design along the northernmost section of the Tech Campus Reach is provided in **Response CCCR-36**.

As discussed in greater detail in **Response CCCR-45**, Appendix BIO3, the SAFER Bay Habitat Restoration Basis of Design Report, was prepared by H.T. Harvey restoration and wildlife ecologists and a senior engineering hydrologist with Environmental Science Associates. The report provides the ecological basis of design for all habitat restoration and enhancement elements (hereafter, restoration elements) incorporated into the Project. The replacement channels would have similar widths and depths as the affected channels. When channel sizes are similar and lengths are not longer, the equations that describe fluid flow in hydrologic models (the Navier-Stokes equations, simplified to the shallow water equations for two-dimensional depth-averaged flow represented in most modeling software) would predict equivalent hydraulic connectivity. Therefore, no additional hydrologic modeling is needed to inform the proposed channel design plans. Although the replacement channels are likely to provide sufficient hydraulic connectivity for the reasons discussed above, habitat restoration monitoring would be conducted to confirm this performance (Mitigation Measure BIO-26: Habitat Restoration Monitoring Plan).

Comment CCCR-38

"Tidal Amplification

The EIR must identify and analyze the impacts of tidal amplification from the proposed 3:1 levee slope (or other flood protection infrastructure placed in the tidal marsh) on the Refuge's Pond R3 levee along Ravenswood Slough.

The DEIR does not address CCCR's NOP comment regarding the effects of tidal amplification on the levee protecting pond R3 and the Western Snowy Plover nesting habitat from the Project creating converging shorelines in Ravenswood Slough. Our concerns are now greater as the degree of shoreline convergence in the DEIR appears to be even larger than what was shown in the NOP, and Ravenswood Slough is even more constricted with the addition of a levee within the slough at the northeast corner of the Tech Campus (see below)

[Refer to map on page 27 of this comment in Appendix RTC-1]

Increased shoreline convergence in Areas A and B in Ravenswood Slough from the NOP (left) to the DEIR (right). Modified images of the NOP Figure 1, Project Location and Components, and DEIR Figure S-1, Project Location and Components.

The SAFER Project proposal to "*Enhance western snowy plover habitat in Pond R3*." (Pg. S-4) as a habitat improvement will do little good if Pond R3 is flooded due to overtopping of the levee from Ravenswood Slough. The Project cannot create unmitigated adverse impacts on the pond R3 levee.

Impacts from tidal amplification could also adversely affect habitats for the salt marsh harvest mouse and California Ridgeway's Rail by creating higher tides in the slough well in advance of, and in addition to, sea level rise. The east, north and west sections of Ravenswood Slough are considered suitable habitat for both species in the California Department of Fish and Wildlife's California Wildlife Habitat Relationship system's Predicted Habitat Models[(26)]."

[Comment Footnote:

[(26)] California Wildlife Habitat Relationships]

Response CCCR-38

We acknowledge receiving CCCR's scoping comments[25] in response to the Project's Notice of Preparation. CCCR's scoping comments hypothesize that the proposed levee encroaching on Ravenswood Slough could increase tidal amplitude via the mechanism of increasing the rate of shoreline convergence within the slough. As the basis for this hypothesis, CCCR's scoping comments cite a modeling study[26] of tidal amplification in San Francisco Bay by University of California, Berkeley researchers. For the reasons detailed below, we concluded that tidal amplification due to converging shorelines is not a process that would contribute to substantial increase in water levels in Ravenswood Slough.

In the introduction to the study cited in the comment, the authors explain the general mechanism for tidal amplification:

> The geometry of a basin can lead to amplification or attenuation through converging or diverging shorelines. van Rijn (2011)[27] investigated the competing roles of convergence (both in depth and width), friction, and reflection. He found that in *sufficiently long, deep, and converging estuaries*, the amplifying effects dominate and tidal amplitude increases toward the head of the estuary. *Shallow converging channels are dominated by friction, resulting in an attenuated tidal range landward of the mouth.* (emphasis added)

Note that this text indicates that tidal amplification requires sufficient length at the scale of estuaries, not merely tidal slough channels. Furthermore, for the case of shallow converging channels, such as Ravenswood Slough, friction is more important than converging shorelines, leading to tidal attenuation instead.

The study presents modeled results of tidal amplification in the bay as a function of soft (no shoreline protection) versus hard (no flow inland of present-day mean higher high water (MHHW) shorelines for the entire bay and with 1 meter of sea level rise. For the South Bay, they found that, relative to the soft shoreline, the hard shoreline scenario had almost no impact at the bay mouth and caused the largest water level increase of 15 centimeters (cm) at the southern end of the South Bay, 60 kilometers (km) from the mouth (see study's Figure 6). Ravenswood Slough is approximately 3 km long, so if a hard shoreline had the same relative amplification effect of 0.25 cm per km, then tidal amplification in Ravenswood Slough could be up to 0.75 cm (0.3 inch). However, the SAFER Bay Project proposes hardening only a fraction of one side of the slough, not the entire shoreline, and as noted above, the slough is shallow and dominated by friction rather than shoreline convergence. These two factors would reduce the effect of shoreline hardening to be less than the amount of amplification predicted along the entire length of the South Bay. Consequently, the tidal amplification in Ravenswood Slough due to the Project is likely to be substantially less than 0.75 cm (0.3 inch). Such a small increase would be negligible for increasing flood hazard to the Pond R3 levee or affecting marsh habitats.

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[25] Citizens Committee to Complete the Refuge, 2022. "Letter to Tess Byler, San Francisquito Creek Joint Powers Authority, RE: Notice of Preparation of an Environmental Impact Report for the Strategy to Advance Flood Protection, Ecosystems and Recreation along San Francisco (SAFER) Bay Project." June 15, 2022.

[26] Holleman, R.C., and Stacey, M.T., 2014. "Coupling of sea level rise, tidal amplification, and inundation." *Journal of Physical Oceanography*, *44*(5), pp.1439–1455.

[27] van Rijn, L.C., 2011. "Analytical and numerical analysis of tides and salinities in estuaries; part I: tidal wave propagation in convergent estuaries." *Ocean dynamics*, *61*(11), pp.1719–1741.

Comment CCCR-39

““East of Meta” Area

The Tech Campus Reach includes a section of Ravenswood Slough in an area the DEIR refers to as “east of Meta”. Measuring the area on Google Earth, it appears to be approximately 6.5 acres. The Project is proposing to dike off a branch of Ravenswood Slough from waters of the San Francisco Bay (Area “A” below).

[Refer to map on page 28 of this comment in Appendix RTC-1]

Sensitive habitats in the area include Northern Coastal Salt Marsh, a California Department of Fish and Wildlife Sensitive Vegetation Alliance, and Tidal Brackish Marsh, a California Department of Fish and Wildlife Sensitive Habitat. (DEIR Pg. 3.4-5)

The California Department of Fish and Wildlife considers much of this area as highly suitable habitat predicted for salt marsh harvest mouse and California Ridgeway's rail for reproduction, cover, and feeding as shown below:

[Refer to map on page 29 of this comment in Appendix RTC-1]

Additionally, in Figure 3.4-2k, *Program Level Reaches* it is not evident why the Tidal Brackish Marsh area will lose tidal action, but not the Muted Tidal Open Water and Northern Coastal Salt Marsh areas as shown below.

[Refer to map on page 30 of this comment in Appendix RTC-1]

Please clarify why the entire area of Ravenswood Slough that would be diked off would not lose tidal action.

It appears that there is no discussion or analysis specific to the environmental impacts from diking off this section of Ravenswood Slough, only that the culvert will have to be extended (page 2-47).

TABLE 4-3, *Comparison of Environmental Impacts of Project to Modified Footprint Alternative*, describes impacts as, “*Similar to the Project*”, “*Less than the Project*”, or “*More than the Project*” for the “east of Meta” area in the discussions of Cultural Resources, Tribal Cultural Resources, Geology, Soils and Paleontology, Hazards and Hazardous Materials”, Hydrology and Water Quality, Noise and Vibration, and Recreation, but no has specific mention regarding impacts to Biological Resources.

The EIR must identify and analyze impacts to biological resources from diking off the “east of Meta” area of the project from tidal flow. Biological impacts to jurisdictional wetlands and waters and endangered species habitat could be avoided or greatly reduced by installing a pedestrian bridge on piers, instead of a levee, across Ravenswood Slough at this location as presented in Figure 4-1, *Modified Footprint Alternative*.

With the potential to reduce significant impacts to biological resources, the EIR must explain why the “pedestrian bridge on piers” option was not considered acceptable.”

[Comment Footnotes on maps:

(27) Salt-Marsh Harvest Mouse Predicted Habitat - CWHR M114 [ds2568] - Dataset - California Open Data
(28) California Ridgeway's Rail Predicted Habitat - CWHR B144B [ds3236] | CDFW Open Data Portal]

Response CCCR-39

The comment refers to proposed shoreline protection in the Tech Campus Reach east of Meta Headquarters shown on Draft EIR Figure 2-20 (Draft EIR page 2-45). The SAFER Bay Project Team is proposing to adopt select features of the Modified Footprint Alternative, including the floodwall between the Meta Headquarters and SR 84 (refer to Section 1.4 of this document). If the floodwall is selected for implementation, this segment of Ravenswood Slough would not be diked off. The response below addresses the segment of levee as described in the Draft EIR.

Regarding comments on the effects of this segment of levee on biological resources, this area provides low quality habitat due to narrow width, high disturbance, and perches provided by nearby trees and fences. California Ridgway's rail, California black rail, and salt marsh harvest mouse could possibly occur in this brackish marsh, but there are no known records.

The commenter stated that "The EIR must identify and analyze impacts to biological resources from diking off the "east of Meta" area of the Project from tidal flow." The Draft EIR addressed the impacts on tidal wetlands in Section 3.4 on pages 3.4-68 and 3.4-69:

> "Tidal salt marsh and tidal brackish marsh located on the landward side of flood protection infrastructure would become non-tidal. Existing tidal salt marsh that is converted to non-tidal habitat would remain predominantly saline due to salts present in the soil. In addition, because these areas are low-lying and underlain by bay mud soils with a high proportion of clay, they are expected to remain predominantly wetland habitats. However, the primary driver of wetland hydrology in these areas would become incidental precipitation and stormwater inflows rather than tidal flows, resulting in conversion from tidal salt marsh to non-tidal marsh habitat. This may cause some seasonal saline wetlands to form as well. Habitat conversion to non-tidal marsh would result in reduced quality of habitat and the ecological functions and values they provide relative to the existing tidal salt marsh. For example, the much lower frequency of saturation and inundation would result in lost frequency of water quality improvement functions; loss of area and connectivity to adjacent wetland and aquatic habitats would reduce the ecological values; and the degradation of quality and connectivity would result in loss of functionality as habitat for tidal-marsh dependent wildlife species (refer to Impact BIO-1). In addition, accumulation of soil salinity due to repeated cycles of flooding and drying may result in some limited bare areas absent of vegetation. Because these areas would result in habitat change but would remain wetlands, they are counted as total permanent impacts but are subtracted from total impacts for the purpose of calculating net loss in Table 3.4-4."

Section 3.4 identified how diking Ravenswood Slough east of the Meta Headquarters would impact the salt marsh harvest mouse on page 3.4-62: "…and construction of flood control features could either temporarily or permanently alter hydrology in marshes and eliminate high-tide refugia needed to evade predation, reducing habitat quality for these species and affecting their ability to survive." This statement has been added to Draft EIR page 3.4-44 to more clearly address impacts to special-status marsh birds due to diking the portion of Ravenswood Slough east of the Meta Headquarters. The Draft EIR identifies the need for a pump station to convey water from this diked off stretch of marsh over the levee and identifies the location on Figure 2-20. Operation of the pump may reduce impacts on this stretch of marsh due to loss of tidal action. Furthermore, proposed tidal marsh restoration in Ponds R1 and R2 address these impacts and impacts on tidal marsh elsewhere in the Project and Program areas. The area indicated by the question mark on Modified Figure 3.4-2k is not indicated as being hydrologically altered by diking of

Ravenswood Slough because that area is already fully diked off. It is mapped as muted tidal habitat due to infrequent tidal flooding during very high tide events.

As described in the Draft EIR, the referenced aspect of the Project is described and evaluated at a program level of detail. The Draft EIR (page 2-47) indicates that "Because the proposed levee alignment would be bayward of the current discharge point for the existing Ravenswood Pump Station, supplemental pumping and/or piping would be added to convey discharge from that pump station to Ravenswood Slough. Although these changes have not been designed yet, a potential location for a pump station to convey water from the outfall channel to Ravenswood Slough has been identified (refer to Figure 2-20)." Accordingly, the EIR includes brief discussions regarding greenhouse gas emissions, hydrology, and energy (refer to Draft EIR Sections 3.7, 3.9, and 3.11) related to the need to pump stormwater over the levee.

Comment CCCR-40

"Bayfront Expressway

The June 15, 2022 CCCR NOP scoping comment letter states, *"The SBSPRP Phase 2 plans currently being implemented call for Pond R3 to remain a managed pond for endangered western snowy plover breeding habitat; therefore,* ***levees for this reach should be designed to have a smaller footprint*** *in order to have the least amount of fill placed inside Refuge Ponds R3 and R5."* (Emphasis added)

The DEIR states that construction of the FEMA levee for this reach will result in the loss of 24.6 acres of WSP habitat in portions of Pond R3. The DEIR further states that WSP nesting activity in the area of the pond near State Route 84 has likely been impacted by "*…high levels of human disturbance owing to its location along the Bay Trail…"* (p.3.4-41).

The description of the Project for this reach includes the following on Page 2-51: ***"Recreation****. The levee would be constructed on the bayward side of the Bay Trail and would be topped by a trail. (There would be no change to the existing Bay Trail, which parallels SR 84 and is between SR 84 and the proposed levee alignment.)"*

The Project proposes a new 20-foot-wide Bay Trail atop a new FEMA levee that is placed further into Pond R3. The distance between State Route 84 and the proposed new levee is 130 feet (Table 3.2-4), putting the pedestrian trail closer to nesting Snowy Plovers. The distance between the existing Bay Trail and SR 84 is approximately 25 -30 feet (measured on Google Earth). This significant change would increase the disturbance impacts to WSP and the encroachment on Refuge lands. Why is this necessary?

Figure 2-22 Bayfront Expressway Reach Plan indicates that a P-1 levee design will be constructed for the entire reach. This levee has a 3:1 slope going into the Refuge's Pond R3 in order to provide "transition zone habitat" **in a managed pond that the Refuge is not restoring to tidal marsh**. Additionally, unlike in several other reaches, the new FEMA levee/trail is not sited over the existing Bay trail, which adds to the encroachment into the pond.

The EIR must provide an explanation of why impacts are necessary and unavoidable, identify how unavoidable impacts have been minimized and address the impacts of fill and encroachment on Refuge lands and endangered species habitat, and the significant indirect impacts from creating even higher "levels of human disturbance" from a closer trail by incorporating changes to the levee design and location. Since Pond R3 is proposed to be retained as a "managed pond" that is not exposed to tidal action, a levee with a 2:1 grade on both sides, that is sited over the existing trail with a new Bay

Trail on top would narrow the levee footprint, and increase the distance between the levee and disturbance impacts from trail users on sensitive WSP nesting habitat in Pond R3.

Additionally, there is also no need to have a 3:1 levee slope into the remaining section of Pond R3 where the levee/trail turns towards Bedwell Bayfront Park through Refuge lands; however, as planned in the Project, the 3:1 levee slope with the transition zone habitat (P-1) would be beneficial in the last segment of the levee adjacent to Pond R4 which currently receives tidal flows for marsh restoration."

Response CCCR-40

The comment asks why it is necessary to locate the Bayfront Expressway Reach along the proposed alignment at the proposed width when doing so could worsen impacts on WSP. This response explains why the proposed alignment at the proposed width is preferred.

Regarding the location of the Project alignment, the levee in the Bayfront Expressway reach was sited in its proposed location to avoid additional loading on the foundation of SR 84. Geotechnical investigations conducted to date determined that placing the new Federal Emergency Management Agency (FEMA)-standard levee closer to SR 84 would impose substantial surcharge loads on the roadway embankment and its underlying soils. This additional loading would accelerate settlement, potentially leading to pavement deformation, structural damage, and long-term maintenance and safety issues for SR 84. To prevent these outcomes, the Project design team shifted the levee alignment bayward, where it can be supported on ground not integral to the SR 84 structural section. This alignment minimizes settlement risk, maintains the integrity of SR 84, and avoids the need for extensive roadway reconstruction or ground-improvement measures that would substantially increase construction impacts, costs, and operational disruptions. Because the levee cannot be safely constructed adjacent to or on top of the existing Bay Trail without compromising SR 84's foundation, the selected alignment reflects the least-impact, technically feasible option that ensures both roadway stability and flood protection performance.

Regarding the proposed width of the levee, please refer to **Responses CCCR-92**. The Modified Footprint Alternative, described and evaluated in Draft EIR Chapter 4, *Alternatives*, evaluates narrower shoreline protection for the Bayfront Expressway Reach by replacing the traditional levee proposed as part of the Project with a levee/floodwall hybrid. Regarding the potential to incorporate 2:1 slopes instead of 3:1 slopes, please refer to **Response CCCR-36**. Direct and indirect impacts on special-status species including WSP are described under Impact BIO-1 in Section 3.4, Biological Resources (beginning on Draft EIR page 3.4-25).

Comment CCCR-41

"Bedwell Bayfront Park Reach

We have no comments regarding impacts to Biological Resources or mitigation measures for this specific reach since there is not much else that can be done regarding the impacts of the road, flood control structures and all the utilities in this small area. Impacts on wetlands are minimal compared to the other reaches. The most effective intervention for sea level rise in Flood Slough is to open up and restore the adjacent salt ponds."

Response CCCR-41

This comment has been acknowledged.

Comment CCCR-42

"Marsh Road Reach

The project-level EIR for this reach should include information on SAFER Project/Menlo Park coordination with Redwood City on the proposed levee plan, as required by the RSAP.

The Cargill salt ponds are within the city limits of Redwood City, and as documented in the DEIR, the pond in the SAFER Project area is designated as Open Space-Preservation in the Redwood City General Plan (Table 3.12-1). These ponds are included in the Congressionally-approved Don Edwards San Francisco Bay National Wildlife Refuge expansion boundary. Should a willing seller come forward, there are significant opportunities for tidal marsh restoration. For this reason, future project-level planning for this reach should ensure that any final design or siting of flood protection infrastructure would not preclude or interfere with the possible restoration of the historic slough channels and marsh plain of the salt pond."

Response CCCR-42

As discussed in the **Global Response on Future Project Development** in Section 3.1.2 of this document, beginning in fall of 2026, OneShoreline will lead a subregional, multi-jurisdictional shoreline adaptation planning effort encompassing five cities—Belmont, San Carlos, Redwood City, Menlo Park, and East Palo Alto. The plan will be developed pursuant to SB 272 and in compliance with the RSAP, with funding provided through a California Ocean Protection Council grant. The SAFER Bay Project Team will continue to coordinate with OneShoreline on the Marsh Road Reach and other reaches.

Comment CCCR-43

"South of Bay Road Reach

As described in the DEIR, the Project plans the South of Bay Road Reach to be the first actual construction of shoreline protection. Actions prior to it will initiate natural infrastructure and habitat enhancement, protect a highway and a substation. This reach protects families' homes, a stormwater pump station, a school, undeveloped and contaminated lands and a substation. As the initial reach it can establish and set standards for all the shoreline protection that follows.

Uniquely this reach has the protecting gift of established, natural infrastructure: the Faber-Laumeister marshes. Other places, within the Project and beyond, are launching efforts to reestablish tidal marshes for their services, mitigating storm surges, providing carbon capture, filtering Bay water and providing habitat for wildlife that depend on it. Instead the South of Bay Road Reach has the purpose of *protecting* marsh to sustain all of its natural services. The USFWS 2025 Survey of Ridgway's rails found their population in Faber-Laumeister marshes stable. Still endangered, neither the rails nor the endangered salt marsh harvest mouse can afford to lose any healthy, tidal marsh habitat. South of the Dumbarton Bridge along the western shoreline of the Bay, Faber Marsh has the highest occurrences of the salt marsh harvest mouse.

The DEIR does not adequately address where refugial habitat exists for the mouse during the highest tides while the Project is under construction."

Response CCCR-43

H.T. Harvey prepared a High Tide Refugial Habitat Assessment for the Project, which found that both Faber and Laumeister marshes contain an abundance of high quality in-marsh refugia provided by natural marsh mounds along slough channels[28]. In addition, the SFCJPA constructed high tide refugial islands in outer Faber Marsh for the San Francisquito Creek Reach 1 Flood Protection Project, and monitoring of these refugial islands has demonstrated that they provide high quality refugial habitat for Ridgway's rail. Therefore, sensitive species in these marshes are not reliant upon transition zones along the landward margins of the marsh for refugial habitat. As such, Project construction will not affect the ability of Ridgway's rail or salt marsh harvest mouse to reach high-tide refugia.

Comment CCCR-44

> "On page 2-4 of the DEIR the discussion lists factors that were considered when choosing levee alignments, including "Limiting impacts on salt marsh habitat." and "Spatial requirements and design guidelines and regulations for engineered shoreline protection features." This reach of the Project has the opportunity and responsibility to fulfill both of those factors and achieve the greatest marsh protection feasible. Doing so, it will set a standard for shoreline build-out in the reaches to follow.
>
> We have concerns about the levee described in the DEIR for this reach. We hope for design and spatial changes that will limit impacts whenever feasible. We say this with our earlier general comments about Biological Resources in mind as well as our overarching special concerns regarding the DEIR.
>
> **Levee width and Trail width** For discussion we consider the proposed engineered 3:1 slopes of levee (wherever slopes can be used). A slope contributes substantially to levee width toe-to-toe and its width may not be compromised. Another dimension, the width of the flat surface sitting between the slopes' upper edges, has flexibility. The DEIR sets the width for all levee trails at 20' wide. We are dismayed. *Please see our comments in Chapter 3.15, Recreation where we discuss trail width in detail.* The concern here is: the wider the trail, the wider the levee, the greater the intrusion into wetlands, the more outboard construction-band wetland destruction occurs as does a corresponding loss of tidal wetland services. The Figures 3.4-(3b to 3g) lay out a startling and extensive intrusion into healthy marsh adjoining the entire length of this Reach. We ask that the Project act to avoid or at least minimize marsh intrusion by reducing the trail to the narrowest width feasible and ensuring that the toe of the slope touches the higher high water mark or marsh edge. Wherever there are locations where the levee itself can also move inland, the Project should take that opportunity to step back. Every foot away from wetland habitat counts. This Reach should set the Project standard for protecting wetland while protecting the shoreline for all subsequent Reaches."

Response CCCR-44

Regarding the proposed width of the levee and trail, please refer to **Responses CCCR-92**. Regarding the potential to incorporate 2:1 slopes instead of 3:1 slopes, please refer to **Response CCCR-36**. Regarding the potential to move the levee inland, please refer to the discussions regarding a more landward alignment in the North of Bay Road, South of Bay Road, and Tech Campus reaches. Refer also to **Response BCDC-2**.

[28] H.T. Harvey & Associates, 2023. *SAFER Bay Project – High Tide Refugial Habitat Assessment and Resulting Marsh-Upland Transition Zone Configuration Recommendations, North and South of Bay Road, East Palo Alto*. Los Gatos, California.

Comment CCCR-45

"**Channel Relocation** We understand that channel relocations were designed as a solution to levee intrusion into existing channels that adjoin and parallel the existing levee/Bay Trail. Moving the toe of the levee back as discussed above might relieve some of that intrusion. Figures 3.4-(3d,3e,3f) show proposed relocations. We have several concerns.

The DEIR does not present any hydrologic modeling as guidance for the optimal alignments of the relocation channels in each location. Would modelling show that existing plans are optimal or identify alternative alignments? Are there plans to do such modelling before proceeding? Would the channels bisect existing, small slough networks of the marsh, disrupting local water supply and isolate currently healthy habitat areas? Please consider these questions, review alternatives chosen and change channel plans as appropriate."

Response CCCR-45

The Draft EIR generally describes replacement channels on page 2-13; the design of the replacement channels is described in Appendix BIO3, Section 8.3. Appendix BIO3, the SAFER Bay Habitat Restoration Basis of Design Report for the Project, was prepared by H.T. Harvey restoration and wildlife ecologists and a senior engineering hydrologist with Environmental Science Associates hydrologists. The report provides the ecological basis of design for all habitat restoration and enhancement elements (hereafter, restoration elements) incorporated into the Project. The replacement channels would have similar widths and depths as the affected channels. The length of the replacement channels is typically shorter (Appendix BIO3, Table 15, and Table 16). When channel sizes are similar and lengths are not longer, the equations that describe fluid flow in hydrologic models (the Navier-Stokes equations, simplified to the shallow water equations for two-dimensional depth-averaged flow represented in most modeling software) would predict equivalent hydraulic connectivity. Therefore, no additional hydrologic modeling is needed to inform the proposed channel design plans.

The affected channels and the replacement channels are relatively small, with most of the channel length having a top width of 10 feet or less and serve areas of 0.03 acre (equal to 1,300 square feet, about the surface area of a typical one-bedroom apartment) or less (Appendix BIO3, Table 15). As such, any subsidiary channels or marsh area are small enough to be supported by overbank flow until smaller channels re-establish connectivity to any small marsh segments. Modeling would not provide greater clarity as to the conveyance capacity and re-establishment of such channels, as they would be below the resolution of typical tidal marsh model grids.

One of the two large channels, the 18-foot-wide replacement channel in Ravenswood Slough (Appendix BIO3, Figure 23), would be relatively short (less than 400 feet) and therefore should have adequate overbank flows to the adjoining marsh while smaller channels re-establish. The other larger large channel, the 20-foot-wide replacement channel in Ravenswood Open Space, would replace a tidal channel which is hemmed in by the shoreline embankment and the Bay Trail embankment for most of its length, so the existing channel has few subsidiary channels. The replacement channel would be a much shorter length, and connects to existing, restored tidal channels within Ravenswood Open Space.

Although the replacement channels are likely to provide sufficient hydraulic connectivity for the reasons discussed above, habitat restoration monitoring would be conducted to confirm this performance. As described under Impact BIO-2, the Project would include Mitigation Measure BIO-26: Habitat

Restoration Monitoring Plan. This plan would cover all proposed habitat restoration activities, including replacement channels. This 10-year monitoring plan will include 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. Repeat measurements of tidal hydrology, topography, and sedimentation will be conducted throughout the monitoring period that document that tidal wetlands are achieving target physical conditions for habitat establishment. Prior to Project construction, this plan must be submitted for approval pursuant to regulatory agency authorities.

Comment CCCR-46

> "We are also concerned about dredging in the marshes for these channels. As USACE and water quality requirements address, dredging can destroy wetlands and expose contaminated soils. It is extremely disruptive to wildlife that may be present. Will dredging these channels meet the Federal Least Environmentally Damaging Practicable Alternative standard? Have sufficient studies been done to justify the Project's proposed alternative? Again, please consider these questions."

Response CCCR-46

Replacement channels will be constructed at low tide, after wildlife surveys to minimize impacts. Impacts to wetlands from replacement channel construction are included in the overall Project impacts as construction phase impacts resulting from conversion from vegetated tidal marsh to tidal open water. This impact was classified as a construction-phase impact because tidal marsh habitat includes both vegetated marsh and tidal sloughs that move tidal flows through the marsh.

Regarding the potential for dredging to expose contaminated soils, refer to **Response CCCR-70**.

Comment CCCR-47

> "Faber-Laumeister Trail Connections: The Project's planning process has identified locations along the inboard side of the South of Bay Road levee that will be access points to the levee trail. Please also list levee access for the Faber-Laumeister Trail as a Project action."

Response CCCR-47

As stated on page 2-23 of the Draft EIR in the Project Description: "The connection to the Faber–Laumeister Trail would be reestablished following levee construction."

Comment CCCR-48

> "Stormwater Outfalls: To protect water quality of the Bay and in the marshes, please require that stormwater outfalls be designed to filter trash and minimize trash pollution in the Bay."

Response CCCR-48

Under existing conditions, development already borders the San Francisco Bay along most of the same alignment as the proposed Project. As discussed in Draft EIR Section 3.14, Population and Housing, the Project would not induce substantial unplanned population growth, either directly or indirectly. The Project does not propose land uses that handle or generate refuse. Therefore, the Project is not expected to substantially increase the potential for trash pollution in San Francisco Bay. As described in Chapter 2,

Project Description, and listed in Draft EIR Table 3.11-6 (p. 3.11-44 et seq.), the Project would protect in place, relocate, or replace existing drainage infrastructure including pump stations and culverts.

In addition, as discussed in Draft EIR Section 3.11, Hydrology and Water Quality, (p. 3.11-19) the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit (MRP) requires permittees, including San Mateo County and Santa Clara Counties and cities within these counties, to effectively prohibit the discharge of non-stormwater to storm drain systems and watercourses. MRP Section C.2.d applies to stormwater pump stations operated by permittees to eliminate non-stormwater discharges containing pollutants, and to reduce pollutant loads in stormwater discharges to comply with water quality standards in the Basin Plan. Section C.2.d.ii(2) of the MRP requires that pump stations be free of trash and debris. New and existing pump stations included in the Project would be required to comply with the MRP.

Comment CCCR-49

> "There are many variations that flood protection can be structured. Here, we suggest that recommendations for the South of Bay Road Reach set standards that extend to subsequent shoreline protection reaches in the Project. Using siting and ecological characteristics cited by Dr. Baye, the actual structures built will need to vary but each Reach can be required to meet the goal of avoiding or at least minimizing loss of wetland habitats."

Response CCCR-49

The comment recommends that flood control infrastructure take into consideration site-specific conditions and ecological considerations to minimize loss of wetland habitats. Dr. Baye's memo refers to examples of siting and ecological characteristics such as the existing tidal wetland gradient and the physical geography of the placement of the levee within the land-shore gradient. Refer to **Response BCDC-2** regarding a description of how the Project is avoiding or minimizing impacts on wetland habitats within the context of CEQA requirements regarding alternatives screening and reach-specific constraints to landward alignments. Regarding the potential to narrow the levee, please refer to **Responses CCCR-36** and **CCCR-92**.

Comment CCCR-50

> **"North of Bay Road Reach**
>
> The Project labels the North of Bay Road Reach as "program" but sets it as the next shoreline protection reach after the completion of the South of Bay Road Reach. DEIR discussion of the Reach is sparse when minimally, existing conditions should have been described for what is a part of the Project that has unique, existing complications that may impede construction.
>
> The proposed levee alignment of this Reach adjoins the Bay Road flood gate at its south end then heads generally north/northwest. The Reach actions include and terminate with a floodgate on the unused, former Southern Pacific railroad.
>
> The majority of the levee alignment follows a shoreline that, like the South of Bay Road Reach, is bordered by substantial tidal wetlands until it nears the railroad tracks at its north end. For that reason and especially regarding the need to minimize levee width and move levees as far inland as is feasible avoiding or minimizing wetland impacts, avoidance of dredging impacts and trash pollution. Please review our comments above and in the Chapter 3.11 re water quality."

Response CCCR-50

With respect to the designation of project- and program-level reaches, as indicated in the Draft EIR (e.g., page 1-3), those Project components for which 30-percent design is available are generally evaluated at a project level of detail and those Project components for which conceptual (generally 10-percent) design information is available are generally evaluated at a program level of detail. As indicated on Draft EIR page 2-56, Project construction would be implemented by member agencies who would determine the ultimate construction schedule; the preliminary construction schedule presented in Table 2-4 was developed for purposes of evaluation, and actual construction phasing may vary based on final design, settlement requirements, geotechnical conditions, and contractor means and methods. As shown in the table, the South of Bay Road Reach and levee segments through Pond SF2 (Dumbarton Approach reach) and around the Ravenswood Substation (Substation and Marsh Restoration Reach) are expected to be constructed before the North of Bay Road Reach.

The level of detail with which proposed changes in the North of Bay Reach are described is commensurate with available information on design (10 percent), construction, and operation and maintenance. An overview of existing conditions are presented in Draft EIR Section 2.4.2. Each environmental topic presented in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*, presents a discussion of existing conditions salient to the particular topic and at an appropriate level of detail to support the impact evaluations. Refer to **Response BCDC-2** regarding reach-specific constraints to landward alignments. Refer to **Responses CCCR-81 through CCCR-88** regarding water quality.

Comment CCCR-51

> "Shoreline Hydrology. As discussed in our comments on Hydrology and Water Quality, we are very concerned to have seen no evidence of hydrology studies of shoreline-adjoining wetlands and see such studies are critical to evaluating any actions involving changing channel flow. Such studies need to occur during the program phase, prior to any decisions on channel changes. The North of Bay Road Reach is a dramatic example.
>
> Figure 3.4-2b is a graphic representation of the Shoreline levee apparently cutting off the tidal flow of East Slough into marshes inboard of the ROSP. In Figure 3.4-2c, it shows a smallish channel cut through the ROSP trail, connecting to a minor slough within the ROSP. Is this proposed channel expected to mitigate the dramatic flow-capacity loss of East Slough?
>
> **[Refer to map on page 35 of this comment in Appendix RTC-1]**
>
> The East Slough is the **major** channel spreading a tidal prism into marshes inland from the ROSP. To avoid undermining the health and survival of those marshes using the alignment proposed (or other alignment), it is absolutely critical that a broad hydrology study be performed between Cooley Landing and the railroad and extending to the most innermost shoreline. To help guide alternatives developed we strongly recommend that the Project involve the San Francisco Estuary Institute to advise the hydrology studies and develop a vision plan showing viable alternatives. Those studies should include assessment of proposed dredging sites for contaminants that may have entered the East Slough from adjoining properties that have known contaminant or strongly suspected contaminant risks.
>
> **[Refer to photos on page 36 of this comment in Appendix RTC-1].**

Response CCCR-51

As noted on Draft EIR page 2-30, along the North of Bay Road Reach, slough channels filled by the levee would be realigned to prevent compromise of the structural integrity of the levee while retaining adequate tidal flushing of the adjacent tidal salt marsh. Draft EIR Section 2.4.1 includes a description of the Project's habitat improvements from the SAFER Bay Project Habitat Restoration Basis of Design Report (Habitat Restoration BOD, included in the Draft EIR as Appendix BIO3).[29]

Regarding hydrology studies, as discussed in the Habitat Restoration BOD, the tidal marsh restoration design presented in the Habitat Restoration BOD and the Draft EIR includes breaches and channels sized using hydraulic geometry relationships, with selected design dimensions between the smaller, likely long-term dimensions based on marsh area and the larger dimensions that would correspond to the initial tidal prism immediately after breaching. Because the surfaces of the ponds are subsided below natural marsh elevations and yield a larger tidal prism than a mature marsh, the tidal prism-based equations provide a larger channel cross section than the marsh area-based equations. The selected design dimensions are intermediate between these two methods. To accommodate the larger tidal prism anticipated right after breaching, the breach dimensions were set as 40 percent of the difference between the smaller marsh-area-based dimensions and the larger tidal-prism-based dimensions for the channel width and 50 percent for channel depth. The breach and channel dimensions will be refined in the detailed design phase based on the results of hydrodynamic modeling. The channels will be refined to reduce grading as much as possible while confirming that the full bayward tide range is conveyed throughout the restoration site interior and that flow velocities are similar to those observed in natural marsh channels (e.g., about 3 feet/second). As stated in Draft EIR Section 2.3.2 (p. 2-3), one of the Project objectives is to 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 WSP, consistent with the SBSPRP and other restoration efforts.

See **Response CCCR-45** for more information regarding the need for additional hydrologic studies. See **Response MidPen-3** for more information regarding the replacement of East Slough with a new tidal channel passing through the Bay Trail embankment.

With respect to the comment regarding contaminants in dredge spoils, East Slough would be filled with the proposed levee, with any excavated spoils from the slough tested and then either used to construct habitat (if spoils do not exceed contaminant criteria) or off-hauled to an appropriate disposal area. With these measures, impacts due to hazardous materials would be less than significant with mitigation, as discussed in Impact HAZ-3 (Draft EIR pp. 3.10-22 to 3.10-24).

Comment CCCR-52

> "Through the 2024 RBDSP, East Palo Alto rezoned marshes within the 391 Demeter property and that lie inboard of the ROSP. It is now zoned as open space and in an ideal location to improve shoreline protection through healthier marshes, fulfilling an RSAP guideline. Scientifically guided actions can improve shoreline protections of the Project.

[29] H.T. Harvey & Associates, 2025. *SAFER Bay Project Habitat Restoration Basis of Design,* February.

It is good news that recent Ridgway's rail surveys of the USFWS and the Invasive Spartina Project continue to find these rails in the ROSP and the neighboring Faber-Laumeister Unit. Even so, relative counts of the rail population are stable, not increasing generally and remain endangered. Enhanced marsh in the North of Bay Road Reach can expand their habitat."

Response CCCR-52

This comment presenting background information on zoning and Ridgway's rail, has been acknowledged.

Comment CCCR-53

"The DEIR concludes that the Project would not result in significant energy impacts. We generally agree with this conclusion, but believe it would be strengthened through alignment with our recommendations in the Noise section of this letter.

The DEIR explains that it does not require electrification of construction equipment due to uncertainty regarding availability and access. While this rationale may be reasonable based on current conditions, the Project's extended, phased construction timeline warrants reconsideration of this conclusion in the Final EIR. As discussed in the Noise section, we recommend that the Final EIR include a mitigation measure requiring use of electric or zero-emission construction equipment where commercially available and feasible at the time of construction, particularly near sensitive receptors. Doing so would demonstrate alignment with statewide energy and climate policy goals without overstating enforceability or feasibility constraints."

Response CCCR-53

The comment recommends that the Final EIR include a mitigation measure requiring use of electric or zero-emission construction equipment where commercially available and feasible at the time of construction. As described in the Draft EIR, the analysis follows CEQA Guidelines sections 15064 and 15126.4, which require that mitigation measures be feasible, proportional to the impact, and based on substantial evidence. CEQA does not require an agency to impose mitigation that is speculative or not currently achievable in the industry.

California's regulatory landscape for off-road equipment is evolving but does not presently mandate zero-emission construction equipment. Although the In-Use Off-Road Diesel-Fueled Fleets Regulation requires phase-out of older Tier 0-2 engines and imposes reporting, idling limits, and fleet modernization requirements, it does not require electrification of construction fleets. California Air Resources Board's (CARB's) proposed Tier 5 standards under development would further tighten emissions limits for off-road engines, but these apply to *future* engine certifications and would not take effect until 2029 or later.[30,31]

Separately, CARB's Clean Off-Road Equipment Voucher Incentive Program (CORE) provides funding for zero-emission off-road equipment that is "commercial-ready" but has not yet achieved broad market penetration. This confirms that while some zero-emission equipment types exist, statewide agencies

[30] CARB (California Air Resources Board), 2023–2026. "In-Use Off-Road Diesel-Fueled Fleets Regulation." Accessed March 2026. Available online at https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation.

[31] AEM (Association of Equipment Manufacturers), 2024. "What the Looming CARB Regulations Mean for Equipment Manufacturers." April 30, 2024. Available online at https://www.aem.org/news/what-the-looming-carb-regulations-mean-for-equipment-manufacturers.

acknowledge that the technology is still emerging and not universally available for typical heavy construction applications.[32] Zero-emission off-road equipment is available for select categories (e.g., small loaders, mini-excavators, select compact track equipment). Manufacturers offer limited electric models approved under CORE, with incentives ranging from $34,000 to $500,000 depending on equipment type. However, these programs target early-stage commercial products that "have not yet achieved a significant market foothold," indicating limited industry availability for large-scale construction needs. For reference, a 2023 study commissioned by the San Francisco Planning Department (Off-Road Construction Equipment Vehicle Inventory) found that 11 percent of the offroad fleet inventory for the Bay Area was electric.

Additionally, CARB's regulatory guidance shows ongoing uncertainty in the heavy-duty equipment market, with rules still in formation and multiple lawsuits challenging federal approvals of California emission regulations (e.g., CARB MAC ECCD-2025-08). This regulatory uncertainty reinforces that large-scale availability of zero-emission heavy construction equipment cannot be guaranteed at this time.[33]

Because CEQA requires that mitigation be both feasible and enforceable, a requirement to use electric construction equipment regardless of availability would be speculative and therefore not appropriate under CEQA Guidelines section 15126.4(a)(3). Nonetheless, as indicated in Section 1.4 of this document, the SAFER Bay Project Team proposes to include the following environmental commitment in Project approval documentation:

> 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.

This approach aligns with current statewide policy goals such as accelerating the adoption of zero-emission off-road equipment through financial incentives without committing to equipment types that may not exist or may not be functional for specific construction tasks.

Refer also to **Response CCCR-90** regarding Mitigation Measure NOI-1.

Comment CCCR-54

> **"IMPACT GHG-1: Project Greenhouse Gas Emissions**
>
> The DEIR concludes that construction-related greenhouse gas (GHG) emissions would be less than significant. While the DEIR provides useful quantitative information, the Final EIR should make several clarifications to support that conclusion.
>
> 1. The narrative description of construction-phase GHG emissions is internally inconsistent with Table 3.9-3, which reports emissions for project components in years extending beyond 2031 and does not clearly align with the stated minimum and maximum annual values (DEIR, p. 3.9-19).

[32] AEM (Association of Equipment Manufacturers), 2023. "What the Looming CARB Regulations Mean for Equipment Manufacturers**."** July 17, 2023. Available online athttps://www.aem.org/news/what-the-looming-carb-regulations-mean-for-equipment-manufacturers.

[33] CARB (California Air Resources Board), 2025. *Manufacturers Advisory Correspondence (MAC) ECCD-2025-08.* August 25, 2025. Available online at https://ww2.arb.ca.gov/sites/default/files/2025-08/MAC%20ECCD-2025-08.pdf.

The Final EIR should reconcile the construction timeframe and peak annual emissions so they are clearly and consistently disclosed."

Response CCCR-54

Text on Draft EIR page 3.9-19 has been revised to address Comment CCCR-54. Refer to Chapter 4 of this document, *Draft EIR Revisions*. This revision does not change the conclusions in the Draft EIR.

Comment CCCR-55

"2. Because construction emissions constitute the predominant source of project-related GHG emissions, the Final EIR should more clearly explain how applying a qualitative, policy-consistency framework (developed primarily for projects with substantial operational emissions) supports a less-than-significant conclusion for annual construction emissions on the order of approximately 5,000–6,000 $MTCO_2e$."

Response CCCR-55

The comment requests clarification on how the Draft EIR's reliance on a qualitative, policy-consistency framework, typically applied to Projects with substantial operational emissions, supports a less-than-significant conclusion for the Project's annual construction emissions of approximately 5,000–6,000 metric tons of CO_2 equivalent ($MTCO_2e$, Table 3.9-3, Draft EIR page 3.9-20).

As discussed in Section 3.9, the Draft EIR's methodology is consistent with CEQA Guidelines section 15064.4, the California Supreme Court's decision in *Center for Biological Diversity v. Department of Fish & Wildlife*, and the Air District's adopted greenhouse gas (GHG) thresholds and 2022 Justification Report. CEQA expressly allows lead agencies to evaluate GHG impacts using quantitative estimates, qualitative analyses, and consistency with regulations and plans adopted to achieve statewide climate goals. Accordingly, the Draft EIR uses both quantified construction emissions and a qualitative analysis of consistency with statewide, regional, and local climate plans.

As noted in the Draft EIR, the Air District does not establish construction-related GHG thresholds, because construction emissions are temporary and non-recurring and constitute a very small portion of statewide emissions with off-road equipment accounting for only 0.6 percent of statewide GHG emissions. Construction emissions for the Project occur only during 2027–2034 and cease entirely thereafter. Even though the Project's peak construction emissions reach 5,000–6,000 $MTCO_2e$ per year, the analysis demonstrates that these temporary emissions do not impede achievement of statewide climate targets.

The Draft EIR's policy-consistency analysis relies on CARB's 2022 Scoping Plan, which shows that California can meet its SB 32 2030 targets and 2045 carbon-neutrality goal without deep reductions from construction equipment. The scoping plan relies on only a small portion of statewide GHG reductions from future electrification of construction equipment (e.g., 25 percent of construction energy demand met by electricity by 2030, increasing to 75 percent by 2045). Because the state's reduction trajectory is driven primarily by long-term emissions from operational sectors (transportation, buildings, and electricity), temporary construction emissions at the levels shown for this Project would not conflict with that trajectory.

The Project is unlike typical land-use development projects, where operational emissions dominate. Here, construction emissions are the primary source of GHG emissions, while operational emissions are minimal. Therefore, the Air District's operational thresholds are not the appropriate metric; a policy-consistency framework is the correct tool for determining significance under CEQA.

The Draft EIR demonstrates full consistency with all applicable statewide, regional, and local GHG-reduction plans—including CARB's 2022 Scoping Plan, the Air District's CEQA Guidelines and Justification Report, the 2017 Clean Air Plan, and local Climate Action Plans for East Palo Alto, Menlo Park, and Redwood City and concludes the Project would not conflict with any adopted GHG-reduction plan (Impact GHG-2). Under CEQA and *CBD v. DFW*, such consistency provides substantial evidence supporting the Draft EIR's less-than-significant determination for GHG emissions.

Comment CCCR-56

> "3. The DEIR should clarify whether long-term "blue carbon" benefits are presented solely as a qualitative co-benefit or are being relied upon to support the significance determination; if the latter, the EIR should address permanence and risk consistent with CEQA principles."

Response CCCR-56

The Draft EIR summarizes the potential increase in blue carbon storage as a co-benefit over the operational phase of the Project, noting aspects of the Project that would lead to the increase.

Comment CCCR-57

> "The DEIR states that mandatory use of electric construction equipment was not required due to uncertainty regarding availability and access. While this conclusion may be reasonable for purposes of GHG significance, construction equipment electrification should be addressed more directly in the Noise analysis as a feasible, performance-based mitigation where commercially available and feasible at the time of construction. Such measures would also provide co-benefits for GHG emissions."

Response CCCR-57

Please refer to **Response CCCR-53**.

Comment CCCR-58

> **"Impact C-GHG-1: Cumulative Greenhouse Gas Emissions**
>
> The cumulative GHG analysis should briefly explain why the Project's construction-related emissions would not be cumulatively considerable in the context of other reasonably foreseeable sea level rise infrastructure projects occurring within overlapping construction timeframes, consistent with CEQA's requirement to explain the basis for concluding that a project's incremental contribution to a cumulative impact is not cumulatively considerable."

Response CCCR-58

The comment requests for an explanation of why the Project's construction-related GHG emissions are not cumulatively considerable, even in the context of other foreseeable sea-level-rise infrastructure projects that may be constructed during overlapping timeframes.

The cumulative GHG analysis in the Draft EIR appropriately explains that GHG emissions and climate change are, by definition, exclusively cumulative impacts, consistent with the California Air Pollution Control Officers Association's guidance that no single project, regardless of size, can generate enough GHG emissions to measurably influence global climate conditions on its own. Because GHG impacts are global in scale and driven by the combined emissions of millions of individual sources worldwide, CEQA requires lead agencies to determine not whether a project adds emissions to the atmosphere, but whether its incremental contribution would be cumulatively considerable when viewed in the context of statewide and global reduction frameworks. As described in the Draft EIR, this framework is applied by evaluating whether the Project's construction-related emissions would interfere with California's ability to achieve adopted statutory and regulatory climate targets, including the SB 32 2030 target, the Assembly Bill 1279 carbon-neutrality goal for 2045, the CARB 2022 Scoping Plan, and the Air District's CEQA Guidelines. This is the CEQA-recognized method for determining cumulative GHG significance, and it forms the basis for concluding that the Project's emissions would not constitute a cumulatively considerable contribution to global climate change.

Comment CCCR-59

> "The SAFER project will be constructed along a shoreline with a long history of environmental contamination from historical and current industrial activities. Excavation along the shoreline has the potential to release contaminants into Bay wetlands and waters and to expose construction workers, nearby residents and workers, and wildlife to hazardous chemicals. Comprehensive health and safety and soil and groundwater management plans should be prepared and followed to minimize these impacts. The DEIR proposes to defer preparation of these plans to a future date, even for reaches evaluated at a project level of detail in the DEIR. Since the details of those plans are not available, the findings of LTS or LSM for impacts related to hazardous chemicals cannot be viewed with confidence, as the plans are critical to assessing the adequacy of mitigation measures."

Response CCCR-59

As indicated in Section 3.10, Hazards, Hazardous Materials, and Wildfire, and Section 3.11, Hydrology and Water Quality, a construction risk management plan (CRMP) was developed in 2020 for portions of the 1990 Bay Road Site, and an Area-Wide Risk Management Plan was developed in 2021 for the Sycamore Real Estate Sites that are adjacent to or overlap with Project components. For work within these areas, the SAFER Bay Project Team would implement the plans' measures and protocols to achieve performance standards that are in place to protect human health and the environment from potential impacts related to the exposure to hazardous materials.

In addition, for construction sites outside of adopted plan areas the Project Proponent will do the following:

- Before the start of ground-disturbing activities at a Project site, including grading, excavation, or demolition of structures, require that the construction contractor(s) retain a qualified professional to prepare a site-specific health and safety plan (HSP) in accordance with federal Occupational Safety and Health Administration regulations (Code of Federal Regulations title 29, section 1910.120) and California Occupational Safety and Health Administration regulations (California Code of Regulations title 8, section 5192) (consistent with Mitigation Measure HAZ-1).
- Within or adjacent to known contaminated sites, using existing data to the extent practicable, 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 (consistent with Mitigation Measure HAZ-2).

- Prepare a groundwater management plan that documents proposed discharge approach and submit it to the U.S. Environmental Protection Agency, Department of Substances Control, and regional water quality control board (RWQCB) for review (consistent with Mitigation Measure HYD-1b).

The preparation of health and safety plans and construction-phase risk management plans immediately prior to construction is standard practice for projects involving known or potential soil or groundwater contamination and consistent with CEQA requirements for mitigation measures.[34] Such plans are typically developed once the final construction methods, staging areas, and excavation limits are determined so that the plans can incorporate the most current site conditions, regulatory requirements, and construction details. Preparing these plans closer to the start of construction ensures that they are tailored to the final engineering design and site-specific conditions encountered during implementation.

The EIR appropriately relies on the requirement to implement these plans, rather than requiring that they be finalized during the environmental review phase. Mitigation Measures HAZ-1 and HAZ-2 require preparation and implementation of site-specific hazardous materials management procedures prior to construction, including worker protection measures, soil and groundwater handling protocols, monitoring requirements, and regulatory agency oversight. These measures establish clear performance standards—namely, that construction activities would be conducted in accordance with applicable federal, state, and local hazardous materials regulations and with approved risk management plans—to minimize the potential for exposure to hazardous materials during Project implementation.

Laws applicable to handling and transport of soil or groundwater include title 22 of the California Code of Regulations section 66261.20, et seq., which requires excavated soil and groundwater to be classified as a hazardous waste for offsite disposal purposes if either exhibits the characteristics of ignitability, corrosivity, reactivity, or toxicity. Title 22 of the California Code of Regulations, division 4.5, article 3, section 66261.24, also defines toxic waste as material containing certain substances at concentrations above thresholds specified in the code. The California Code of Regulations title 22, division 4.5, chapter 12, section 66262.11 (Hazardous Waste Determination), also requires the identification and management of hazardous soil and groundwater and identification of appropriate disposal methods. Implementation of a HSP and hazardous soil and groundwater management consistent with these requirements would reduce the risk of creating a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials or reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

In this case, the CRMP and the Sycamore Area-Wide Risk Management Plan are existing regulatory frameworks developed to address contamination at these sites, and the Project would be required to implement them during construction activities within those areas. Because the mitigation measures ensure that appropriate risk management procedures will be in place before ground disturbance occurs, the Draft EIR can reasonably conclude that impacts related to hazardous materials during construction would be reduced to a less-than-significant level.

[34] CEQA Guidelines section 15126.4.

Comment CCCR-60

"Findings of LTS or LSM for the following impacts discussed in Chapter 3.10 are not adequately supported or documented by the DEIR and require additional measures to ensure the safety of workers, the public, and the environment.

- *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.*
- *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.*
- IMPACT HAZ-2: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one quarter mile of an existing or proposed school.

Additionally, IMPACT AIR-3: Expose sensitive receptors to substantial pollutant concentrations— is related to IMPACTs HAZ-1, C-HAZ-1 and HAZ-2 — as it concerns exposures to the public from airborne contaminants generated by the project.

Impacts HAZ-1 and C-HAZ-1

The DEIR findings of LSM for IMPACTs HAZ-1 and C-HAZ-1 are based on mitigations to be detailed in three plans:

- MM HYD-1b: Groundwater Management Plan
- MM HAZ-1: Health and Safety Plan
- MM HAZ-2: Soil Management Plan

We request that the supplemental information and additional measures described below be included in the EIR and in these plans to support the LTS and LSM findings."

Response CCCR-60

Please refer to **Response CCCR-59** regarding the adequacy of Mitigation Measures HAZ-1, HAZ-2, and HYD-1b. Refer to **Response CCCR-61** through **CCCR-73** regarding the comments on which assertions presented in this comment are based.

Regarding how Impact AIR-3 (exposure of sensitive receptors to substantial pollutant concentrations) relates to Impacts HAZ-1, C-HAZ-1, and HAZ-2 with respect to potential public exposure to airborne contaminants, Impact AIR-3 evaluates potential exposure of nearby sensitive receptors to air pollutants generated by construction and operational activities, such as diesel particulate matter from equipment and fugitive dust. In contrast, Impacts HAZ-1, C-HAZ-1, and HAZ-2 evaluate the potential for construction activities to disturb contaminated soil or groundwater at known contaminated sites, which could result in exposure to hazardous substances through pathways including airborne dust or vapors. Thus, while both analyses consider potential airborne exposure, they address different sources: AIR-3 evaluates emissions generated by Project activities, whereas the hazards impacts address the potential release of existing contamination during construction. The mitigation measures identified in the EIR—including construction emissions controls and implementation of site-specific hazardous materials management and

risk management procedures—would reduce the potential for airborne exposures to nearby receptors. Accordingly, the analyses are complementary and together address potential public exposure to airborne contaminants associated with the Project.

Comment CCCR-61

"MM-HAZ-1: Health and Safety Plan

Where SAFER will be constructed in areas with approved construction risk management plans (i.e., sites in the South of Bay Road and North of Bay Road reaches), the DEIR proposes to use the approved soil cleanup levels and protocols for those sites (page 3.10-19). However, the approved plans may not include adequate mitigation measures for a SAFER Health and Safety Plan, as discussed below for the individual reaches. The EIR should provide additional details to support that the approved plans 1) cover the scope and magnitude of all activities planned for SAFER construction, 2) are based on a comprehensive human health and environmental risk assessment, and 3) use the most recent toxicity factors or cleanup criteria from state and federal sources. If any shortcomings are present in the existing plans, a reach-specific Health and Safety Plan should be required for these areas."

Response CCCR-61

The EIR addresses potential adverse effects from encountering contamination in Impacts HAZ-1 through HAZ-3 and HYD-1. The Draft EIR identifies the use of adopted plans where such plans apply and identifies mitigation (Mitigation Measures HAZ-1 and HAZ-2) to address construction in areas where such plans do not apply but where it is reasonable to expect that contamination could be encountered.

Although portions of the South of Bay Road Reach levee could include ground disturbance within the 1990 Bay Road property, other portions of the levee would be constructed in areas where contamination exists but outside the property line. To clarify the application of Mitigation Measures HAZ-1, HAZ-2, and HYD-1b along the South of Bay Road Reach, Draft EIR Impacts HAZ-3 and HYD-1 have been revised to explicitly explain the requirements for work within the 1990 Bay Road property and within areas outside the 1990 Bay Road property but within the mapped area of contamination associated with prior land uses at the property (refer to Chapter 4 of this document, *Draft EIR Revisions*).

As discussed in Draft EIR Section 3.10, Hazards and Hazardous Materials, (p. 3.10-22 et seq.) a CRMP was developed in 2020 for portions of the 1990 Bay Road Site, and an Area-Wide Risk Management Plan was developed in 2021 for the Sycamore Real Estate Sites.

As discussed in this and responses to other related comments (e.g., **Response CCCR-67**), the 2020 CRMP applies to ground disturbance solely within the property and is not intended to be applied for the management of risks within other areas in the site or other projects not otherwise explicitly identified in the CRMP.

Comment CCCR-62

"A particular contaminant of concern within several of the SAFER reaches is arsenic, as it is a major contributor to human health (cancer) risk. The arsenic soil cleanup level recommended by the Water Board for human health protection at sites with residential use is 11 milligrams per kilogram dry soil (mg/kg), based on the regional soil background from a 2011 study that analyzed soils throughout the

Bay Area(29). Because SAFER levee slopes will not be paved, the residential value should be used, to provide greater protection to the public."

[Comment Footnote:

(29) Duvergé, D. J. 2011. Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region]

Response CCCR-62

The "soil cleanup level" referenced in the comment is understood to mean the RWQCB's environmental screening levels. The environmental screening levels (ESLs) provide conservative screening levels for over 100 chemicals found at sites with contaminated soil and groundwater. They are intended to help expedite the identification and evaluation of potential environmental concerns at contaminated sites. ESLs address a range of media (soil, groundwater, soil gas, and indoor air) and a range of concerns (e.g., impacts on drinking water, vapor intrusion, and impacts on aquatic habitat). Exceedance of the ESLs does not necessarily indicate adverse effects on human health or the environment, but rather that additional evaluation is warranted. ESLs are not default cleanup goals.[35] Previous human health risk studies focused on arsenic exposure have been conducted in the South of Bay Road Reach (for the 1990 Bay Road site) and evaluated both residential and commercial/industrial use exposure scenarios.[36] Residential exposure considers soil ingestion, inhalation exposure, and plant ingestion (i.e., consumption of home-grown vegetables), over a period of 365 days per year (every day). In addition, as discussed on Draft EIR pages 3.11-33 and 3.11-34, with implementation of Mitigation Measure HYD-1a (Master QAPP for Imported Terrestrial Fill), imported levee material in all locations would be tested in accordance with the Master quality assurance project plan (Master QAPP) for the Refuge. Master QAPP criteria would be applied to all imported terrestrial fill used by the Project. The Master QAPP wetland surface screening criterion for arsenic is 15.3 microgram/kilogram (mg/kg) dry weight. The Master QAPP screening criteria are based in part on screening criteria for metals developed for the South San Francisco Bay Shoreline Project, which included unpaved levees.

Comment CCCR-63

"The DEIR requires that, on all reaches and all sites outside of adopted plan areas, a qualified professional must prepare a Health and Safety Plan (page 3.10-19). For areas "without approved plans and within or adjacent to known contamination sites," the DEIR proposes to identify soil and groundwater contamination by visual signs and odors and by using existing data to the extent practicable (page 3.10-20). This approach is not sufficient to ensure that impacts on construction workers, nearby residents, and wildlife will be less than significant. Most toxic chemicals have adverse health and environmental effects at concentrations below that at which odors or staining will occur, and many are not detectable at all by odor or visual inspection. Existing data may not include analyses of all chemicals of concern or may have used obsolete test methods. Sites may have been closed based on old criteria that are not considered protective at present. The EIR should require onsite soil and groundwater monitoring (i.e., field test kits, sensitive and specific chemical sensors) to be used during excavation in all reaches with past industrial use, requiring follow-up sampling and laboratory analysis when concentrations exceed screening levels."

35 San Francisco Bay RWQCB (San Francisco Bay Regional Water Quality Control Board), 2025. *User's Guide: Compilation and Application of Environmental Screening Levels (ESLs)*. Interim Final, 2025.

36 Geomatrix Consultants and S.S. Papadopulos & Associates, Inc., 2007, *Wetland Operable Unit Feasibility Study, 1990 Bay Road Site*. May 2007.

Response CCCR-63

Mitigation Measure HAZ-2 already requires soil testing as part of soil management plan development. To clarify the *approach* to soil testing required by Mitigation Measure HAZ-2, the measure has been refined, (refer to Chapter 4 of this document, *Draft EIR Revisions*).

Comment CCCR-64

"MM HAZ-2: Soil Management Plan

The DEIR (page 3.11-33) references a screening procedure to assess whether imported fill is sufficiently clean for use in levees, the *Master Quality Assurance Project Plan for Don Edwards San Francisco Bay National Wildlife Refuge (Master QAPP) (U.S. Fish and Wildlife Service and H.T. Harvey & Associates, Revised October 6, 2021)*. This reference should be updated to Version 3, revised December 10, 2024.[30]

The Master QAPP was developed by the USFWS, the Bay Conservation and Development Commission (BCDC), and the Water Board to screen soils for placement in areas that provide habitat for wildlife or are adjacent to wildlife habitat. However, unlike most levee projects within the Refuge, SAFER reaches are adjacent to residential areas, workplaces, schools, or parcels where future housing or schools could be built. For that reason, imported soils that will be used on levees should also be screened using the Water Board's most recent Tier 1 Environmental Screening Levels (ESLs) for soil.[31] The program and project soil screening levels for levee soil should be the lower of the screening levels in Table 5 of the Master QAPP and the Tier 1 ESLs. Both sets of screening levels should be included as a table in the EIR. It must be emphasized, however, that Water Board ESLs are not cleanup levels – they are concentrations that, if exceeded, may require further investigation and remediation."

[Comment Footnotes:

[30] *Master Quality Assurance Project Plan for Don Edwards San Francisco Bay National Wildlife Refuge (Master QAPP)*. U.S. Fish and Wildlife Service and H.T. Harvey & Associates, Revised December 10, 2024.

[31] *2025 Environmental Screening Level Summary Tables Revision 3. Tier 1 ESL Table*. https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/ESL/]

Response CCCR-64

As discussed more fully in **Response CCCR-62**, residential exposure screening levels consider soil ingestion, inhalation exposure, and plant ingestion (i.e., consumption of home-grown vegetables) over a period of 365 days per year (every day). Commercial/industrial exposure considers soil ingestion and inhalation exposure over a period of 250 days per year. Residential, commercial, or industrial uses are not proposed on the levees; consequently, no revisions to the Draft EIR are warranted to address the issue raised in this comment. However, as shown in Chapter 4 of this document, *Draft EIR Revisions*, the SAFER Bay Project Team has voluntarily included consideration of the ESLs in Mitigation Measure HAZ-2 (Soil Management Plan) as criteria for reusing soil excavated at the site. In addition, as discussed in **Response CCCR-66**, Mitigation Measure HAZ-2 also requires dust control and safe soil handling during project construction. EIR Mitigation Measure AIR-1 (Best Management Practices for Construction-Related Fugitive Dust Emissions) would also apply to all reaches and requires implementation of practices such as watering all exposed surfaces up to twice per day when winds are greater than 8-12 miles per hour, wet-power vacuum sweeping of all visible mud or dirt trackout on

adjacent roads, and complete covering of all haul truck loads transporting soil, sand, or other loose material.

As discussed in the Draft EIR and shown in the Habitat Restoration BOD (Figure 14), the landward side of the levee would be vegetated with grassland or grassland with non-tidal salt marsh. The species proposed for inclusion in the vegetation mix (such as *Festuca microstachys* and *Stipa pulchra*) were selected to stabilize topsoil, in addition to providing habitat. In addition, as described in Draft EIR Section 2.7.1, vegetation maintenance along the proposed shoreline protection would include irrigation, weed control, and plant replacement.

Draft EIR footnote 78 on page 3.11-33 has been updated to reference the most recent version of the Master QAPP (refer to Chapter 4 of this document, *Draft EIR Revisions)*.

Comment CCCR-65

"**Impact HAZ-2: Release hazardous materials within one quarter mile of a school**

One school is located within a quarter mile of the SAFER project. The Ravenswood School District's Aspire Charter School, in the South of Bay Road Reach, is within 200 feet of the levee location. High levels of arsenic and other toxic contaminants are present in soils and groundwater that will be excavated during nearby levee construction. No mitigations of slough sediments or marsh soils were required in this reach. Unless a human health risk assessment is performed that indicates cumulative health risk to children are within acceptable limits, and specific mitigations are identified that are tailored to the SAFER construction activities and risks, IMPACT HAZ-2 cannot be designated LTS."

Response CCCR-65

Draft EIR Impact HAZ-2 refers the reader to Impact HAZ-3 for a discussion of the potential to emit hazardous emissions during construction, and to Impact AIR-3 for a discussion of the potential for sensitive receptors to be exposed to pollutant concentrations and emissions during construction. To avoid duplicating analyses, Draft EIR Impact HAZ-2 focuses on the potential of the Project to use extremely or acutely hazardous materials within 0.25 mile of an existing or proposed school. Impact AIR-3 presents the results of a health risk assessment (HRA), prepared using technical information and HRA guidance and protocol from the Air District, CARB, and Office of Environmental Health Hazard Assessment, which concluded that health risk impacts related to diesel particulate matter and $PM_{2.5}$ emissions from Project construction would be less than significant.

Comment CCCR-66

"Impact AIR-3: Expose sensitive receptors to substantial pollutant concentrations

The DEIR found AIR-3 to be LTS. This conclusion was based on results of a human health risk assessment (HRA) that modeled the cancer and noncancer risks to sensitive receptors of particulate matter and other criteria air pollutants emitted during construction (page 3.3-19 and Appendix AIR). However, the HRA did not evaluate risks of exposure to noncriteria toxic air contaminants (e.g., arsenic, PAHs, VOCs) in vapor or dust released from soil or groundwater during excavation, soil handling, dewatering, and other construction activities. This omission is of concern for residents of neighborhoods adjacent to the SAFER project, particularly in reaches with extensive contamination of soil and groundwater.(32)

To justify the conclusion of LTS for AIR-3, the EIR should require the program and projects to evaluate, via source characterization, air transport modeling, and human health risk assessment, the cancer and noncancer risk to sensitive receptors from airborne transport of toxic chemicals such as metals, pesticides, and volatile and semivolatile organic compounds (VOCs and SVOCs) generated from construction activities within the project boundaries."

[Comment Footnote:

(32) https://www.sfpublicpress.org/bay-area-group-new-tool-reveals-worst-toxic-sites-refocusing-environmental-activism/]

Response CCCR-66

The commenter expresses concern that the HRA conducted as part of the Draft EIR's construction air quality analysis did not evaluate potential exposure to toxic air contaminants (TACs) including arsenic, polycyclic aromatic hydrocarbons (PAHs), and VOCs, that could be released during excavation and soil handling near contaminated properties.

As described in Section 3.2, Air Quality, the HRA evaluates diesel particulate matter and $PM_{2.5}$ consistent with Air District CEQA Guidelines, which identify these pollutants as the primary contributors to construction-related health risk. Site-specific non-criteria TACs such as arsenic, PAHs, and VOCs are not included in construction HRAs because there are no reliable, published emission factors or activity-based release rates that would allow for defensible modeling of airborne concentrations. Emissions of these contaminants during excavation depend on varying and site-specific conditions (e.g., depth of contamination, moisture, disturbance methods, and soil characteristics). CEQA practice therefore relies on regulatory controls and enforceable management plans, rather than air dispersion modeling, to reduce potential exposures to workers and sensitive receptors, including nearby residences and schools.

The Draft EIR discusses regulatory controls and the potential for impacts associated with work in or near contaminated sites under Impact HAZ-3, which evaluates whether construction near hazardous materials sites listed under Government Code section 65962.5 (Cortese List) would create a significant hazard to the public or the environment. Impact HAZ-3 identifies that several segments of the Project intersect or are immediately adjacent to sites with known contaminated soil and groundwater, including the 1990 Bay Road and Cooley Landing sites, both of which are located within the South of Bay Reach and are known to contain elevated levels of arsenic, petroleum hydrocarbons, polychlorinated biphenyls, and other contaminants. Because contaminated materials could be encountered during Project excavation, Impact HAZ-3 identifies potential impacts and requires implementation of Mitigation Measures HAZ-1 (Health and Safety Plan), HAZ-2 (Soil Management Plan), and HYD-1b (groundwater handling requirements), or other site-specific management requirements from existing approved plans (e.g., CRMP) that protect both onsite workers and offsite sensitive receptors, including schools, residences, and businesses. Together, these require dust control, safe soil handling, stop-work procedures, groundwater containment, and adherence to RWQCB-approved risk management plans.

Due to the presence of formal, agency-approved risk management plans and deed restrictions governing intrusive activities within contaminated properties; the requirements of Mitigation Measures HAZ-1, HAZ-2, and HYD-1b, which are specifically designed to prevent offsite migration of hazardous materials; and the engineered controls that will remain in place (including levees functioning as approved final caps), the Project will not create a significant hazard to the nearby communities or the general public.

With these enforceable measures and existing regulatory controls, construction near contaminated sites will not create a significant hazard to the school or surrounding community. Therefore, no additional site-specific HRA is required under CEQA.

Comment CCCR-67

"South of Bay Road Reach: IMPACTS HAZ-1, HAZ-2, AIR-3, and BIO-1

This reach borders the 1990 Bay Road sites, multiple parcels with extensive contamination of soil and groundwater with arsenic and selenium, metals and pesticides, as described in DEIR Table 3.10-1 and page 3.10-22. Contaminants remain in shallow and deep soils above health-protective limits.[33] An asphalt cap currently limits exposures to contaminated soils, but SAFER excavation and construction will disrupt the cap and generate dust. A sensitive population (elementary school children) and residences on Runnymede Street are located within 200 feet of the SAFER levee location.

On a portion of the 1990 Bay Road site proposed by Harvest Properties for a mixed-use development ("The Landing"), the DEIR (page 3.10-19) states that following applicable regulations and the protocols in the RWQCB-approved Construction Risk Management Plan (CRMP) for that project[34] will reduce potential HAZ-1 impacts to LSM. The Harvest Properties CRMP cannot be used as a substitute for SAFER project-specific protocols, for several reasons.

- The CRMP (page 1) states that it is for the intended use of "The Landing" project contractors and does not apply to "management of risks within other areas in the Site or other projects not otherwise explicitly identified in this RMP."
- The DEIR (page 3.10-31) states "*Implementation of the management measures are understood to protect human health, including onsite construction workers, nearby residents and workers, and the environment from potential impacts*." This statement is not supported by a close reading of the CRMP. Although the CRMP objectives include protecting the public and the environment, the only actual requirements are for contractors to conduct a human health risk assessment and prepare a site-specific Environmental Health and Safety Plan to protect construction workers (CRMP, page 21). There is no requirement to assess risks to other receptors.

To support a finding of LTS for HAZ-2 and LSM for HAZ-1, C-HAZ-1, and AIR-3, the final EIR should include a requirement to conduct a reach-specific, multi-pathway, human health risk assessment that considers potential exposures of construction workers and sensitive receptors to arsenic and other contaminants in dust generated by the SAFER construction. The results of that assessment should be incorporated into the reach-specific Health and Safety and Soil Management Plans."

[Comment Footnotes:

[33] RWQCB, 2016. Staff Summary Report (Mark Johnson), Meeting Date: July 13, 2016. *Starlink Logistics, Inc. (Formerly Rhone-Poulenc, Inc.), for 1990 Bay Road Site, East Palo Alto, San Mateo County - Adoption of Final Site Cleanup Requirements*.

[34] S.S. Papadopulos & Associates, INC. *Construction Risk Management Plan, Addendum to the Comprehensive Site Management Plan, 1990 Bay Road Site, East Palo Alto, California. December 19, 2020.*]

Response CCCR-67

Please refer to **Response CCCR-61**. CRMP Section 4.6, Dust Control Plan, states that site users and the public may be exposed to dust generated during construction activities and identifies protocols developed

for controlling fugitive dust. As stated in the CRMP, the dust control measures are intended to achieve a goal of no visible construction dust emissions that leave the property. The measures would be implemented during demolition of existing structures, grading, soil handling and stockpiling, vehicle loading, utility work, truck traffic, and construction of infrastructure.

As discussed in **Response CCCR-61**, in portions of the South of Bay Road Reach not within the 1990 Bay Road property boundary, Mitigation Measures HAZ-1 and HAZ-2 would apply. Mitigation Measure HAZ-2 requires soil testing and development of 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 prior to excavation in areas previously documented as having contaminated soil or groundwater.

Please also refer to **Response CCCR-66** regarding the HRA required for the Project.

Comment CCCR-68

> "The 20 mg/kg of arsenic that the CRMP allows to be left in place beneath an impermeable cap should not be applied to levee soils in the SAFER project. That value was approved in 1992 by the RWQCB based on a soil background value in use at the time, and only for soils beneath a durable cap that prevents exposure. Levee slopes will be vegetated but not paved, which will not stop rainwater or seawater from mobilizing contaminants into the residential areas or wetlands. Instead, the SAFER plans should use the currently recommended 11 mg/kg as a maximum concentration for levee soils."

Response CCCR-68

The Draft EIR specifies in Mitigation Measure HYD-1a (Master QAPP for Imported Terrestrial Fill) that imported soil used for the levee must meet the requirements of the Master QAPP for the Refuge, which allows fill to contain arsenic concentrations up to 15.3 mg/kg. The Master QAPP screening criteria are based on levels considered chemically suitable to come into contact with wetland flora and fauna (2024 Master QAPP p. 14). As discussed more fully in **Response CCCR-62**, residential exposure screening levels consider soil ingestion, inhalation exposure, and plant ingestion (i.e., consumption of home-grown vegetables), over a period of 365 days per year (every day). Commercial/industrial exposure considers soil ingestion and inhalation exposure over a period of 250 days per year. Residential, commercial, or industrial uses are not proposed on the levees; consequently, no revisions to the Draft EIR are warranted to address the issue raised in this comment. However, as shown in Chapter 4, *Draft EIR Revisions,* of this document, the SAFER Bay Project Team has voluntarily included consideration of the ESLs in Mitigation Measure HAZ-2 (Soil Management Plan) as criteria for reusing soil excavated at the site (refer to **Response CCCR-62**).

The 2020 CRMP specifies that existing site soil must be underneath a cap (Section 4.5.1, Reuse of Existing Soil). The plan states that the property will have final caps over soil with arsenic concentrations greater than 20 mg/kg and lists the levee as an appropriate final cap (as noted in Section 4.1.3), which implies that the levee itself must not contain existing site soil. Section 4.5.3 states that soil may be imported for use as a cap material (such as for levee construction) and that Category I Fill (clean material meeting import criteria for unrestricted use) will be used in landscaped areas. As discussed in **Response CCCR-61** and stated in Draft EIR Mitigation Measures HAZ-1 and HAZ-2, the CRMP criteria would be followed for work within the 1990 Bay Road property.

Comment CCCR-69

"East of 1175 Weeks Street, the levee footprint overlies part of a cement-bentonite subsurface barrier wall, intended to keep arsenic and other contaminants from entering the Bay (see Figure 6 of the CRMP). If excavation and construction of the levee will or could destroy any part of this barrier, the EIR should describe how the barrier and associated monitoring wells will be replaced and how the integrity of the barrier system will be evaluated after levee construction."

Response CCCR-69

The SAFER Bay Project Team and the Draft EIR acknowledge the presence of the cement-bentonite subsurface barrier wall located west of the levee alignment near 1175 Weeks Street. During preliminary engineering, the levee alignment and footprint in this area were intentionally designed to avoid both the barrier wall and the associated monitoring wells. Based on current design information, the levee construction in this reach would not require excavation within or immediately adjacent to the cement-bentonite cutoff wall, and it would not disturb the monitoring wells that support performance monitoring of the barrier system. Therefore, impacts on the barrier wall are not anticipated.

As noted in Draft EIR Table 3.10-1 (page 3.10-3), 1990 Bay Road, which includes the area east of 1175 Weeks Street, is a land-use restricted site. A "land use restricted site" is a property where the California Department of Toxic Substances Control (DTSC) has placed limits or requirements on future use of the property due to varying levels of cleanup possible, practical, or necessary at the site. DTSC maintains and makes publicly available a list of land use restricted sites. As stated in Draft EIR Table 3.10-1, at the 1990 Bay Road site, deed restrictions restrict land uses and prohibit intrusive work without the prior approval of the RWQCB, DTSC, StarLink Logistics, Inc., and property owners. These restrictions are intended to prevent exposure to arsenic-affected soil and groundwater.

DTSC has extensive authority to require cleanup of hazardous wastes or other corrective measures. Pursuant to California Health and Safety Code title 45 section 78000 et seq., when DTSC has determined that a release of hazardous materials has occurred, DTSC has the authority to undertake planning, legal, fiscal, economic, engineering, architectural, and other studies or investigations that are necessary or appropriate to plan and direct response actions to address the hazardous materials release. DTSC, or, if appropriate, the RWQCB, is the state agency with sole responsibility for ensuring that required action in response to a hazardous substance release or threatened release at a listed site is carried out in compliance with the procedures, standards, and other requirements identified in relevant sections of the Health and Safety Code, and shall, as appropriate, coordinate the involvement of interested or affected agencies in the response action. DTSC has specialized technical expertise and its authority and requirements are designed specifically to prevent the release of contaminants into the environment.

As the Project advances into final design, additional field verification and coordination with the responsible regulatory agencies (including DTSC and the RWQCB) would occur to confirm the precise location and depth of the cutoff wall and associated monitoring wells. The need for replacement or re-establishment of monitoring wells, if any, or evaluation of the barrier's post-construction integrity, would be addressed in coordination with the appropriate regulatory oversight agencies.

Comment CCCR-70

"The Final Cleanup Order for the Rhone-Poulenc (Starlink Logistics) Wetlands Operable Unit (OU) states that a 1.3 acre area of the Laumeister Tract exceeded target cleanup levels for protection of salt marsh harvest mouse and Ridgway's (Clapper) Rail from arsenic in the slough and shallow marsh soils.[35] A 2000 ecological risk assessment found higher levels of arsenic (up to 54 mg/kg dry weight) in sediments at depths of 4.5 to 5 feet at one location; however, the authors concluded (and the RWQCB concurred) that this deeper contamination was not associated with the 1990 Bay Road sites.[36], [37]

Figure 21 of DEIR Appendix BIO3 shows where the western channel of the Laumeister Tract will be impacted by levee construction, and where SAFER plans to excavate a replacement channel in the marsh. Both the SAFER levee and the replacement channel pass through several areas where slough sediments and shallow marsh soils were determined to contain arsenic (and zinc) in excess of target levels for ecological risk.[38]

The Final Cleanup Order did not require remediation of this OU; therefore, to justify the findings of LSM for IMPACT HYD-1b and BIO-1, the EIR should require any sediments or soils excavated from this reach to be tested for arsenic and other contaminants associated with 1990 Bay Road sites and the results used to determine the disposition of the materials. Additionally, where excavations for replacement channels expose deeper sediments or soils, a robust program of sampling and analysis should be implemented to ensure that the new channel floor and banks do not contain arsenic and other contaminants at levels posing an ecological risk to slough or marsh biota."

[Comment Footnotes:

[35] Johnson, RWQCB Staff Summary Report (n 5) 7
[36] Geomatrix Consultants, Inc. *Sediment Sampling Results, Tidal Wetland, 1990 Bay Road Site East Palo Alto, California*. June 9, 2000. Letter to Mark Johnson, RWQCB
[37] CA RWQCB. *Sediment Sampling – Wetland Operable Unit, 1990 Bay Road Site, East Palo Alto*. November 7,2000. Letter to Robert Ferguson, Rhone-Poulenc
[38] Basland, Bouk and Lee, Inc. *Memorandum: Final Risks to Endangered Species, 1990 Bay Road Site. East Palo Alto, California*. June 4, 2004.]

Response CCCR-70

The SAFER Project Team reviewed existing soil and groundwater contamination data from the 1990 Bay Road Wetlands Operable Unit when identifying the proposed levee alignment in the South of Bay Road Reach. The 2005 Final Cleanup Order presents information based on over 350 samples collected to characterize soil in the wetland. The 2005 Final Cleanup Order notes that the ecological assessment conducted in 2000 identified the highest arsenic concentrations in subsurface sediment at depths below 5 feet near the bend in the existing levee, and that the arsenic concentrations decreased rapidly with distance from the bend in the levee (p. 6). As shown on Draft EIR Figure 2-7, the proposed shoreline protection near 1990 Bay Road is shifted toward San Francisco Bay to avoid areas of high arsenic concentrations in soil while remaining as far inland as feasible.

As clarified in **Response CCCR-61**, while portions of the South of Bay Road Reach levee could include ground disturbance within the 1990 Bay Road property, other portions of the levee would be constructed in areas where contamination exists but outside the property line; the response and text revisions in Chapter 4 of this document clarify that Mitigation Measures HAZ-1 and HAZ-2 apply in the South of Bay Road Reach in areas outside of the 1990 Bay Road property boundary (including areas of the 1990 Bay

Road site in Laumeister Marsh). As clarified in **Response CCCR-63**, Mitigation Measure HAZ-2 requires soil testing and development of 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 prior to excavation in areas previously documented as having contaminated soil or groundwater.

The comment also states that, where replacement sloughs would be excavated in Laumeister Marsh, a robust program of sampling and analysis should be implemented to ensure that the new channel floor and banks do not contain arsenic and other contaminants at levels posing an ecological risk to slough or marsh biota, because remediation was not required in the Final Cleanup Order for the Rhone-Poulenc (Starlink Logistics) Wetlands Operable Unit. The northernmost section of the replacement slough channel in Laumeister Marsh is located at the border of the Wetlands Operable Unit, and all portions of the replacement channel south of that area are outside the Wetlands Operable Unit. The dry weight arsenic concentrations in wetlands sediment samples nearest the replacement channel (Sample B8-18) were below levels found to have no adverse effect on ecological receptors.

The ecological assessment also collected reference sediment samples from the "Ravenswood wetland" (north of the Dumbarton Bridge on the west side of San Francisco Bay) and the "Dumbarton wetland" on the east side of the bay just south of Dumbarton Bridge and concluded that the arsenic concentrations in sediment near the wetlands operable unit were not statistically significantly different than the reference locations. The ecological assessment also assessed the potential for direct exposure of small mammals and birds to contaminated sediments and surface water, and indirect exposure via the ingestion of contaminated native vegetation and invertebrates. Tissue samples of benthic invertebrates collected at Slough Station 2, where elevated arsenic concentrations were reported in sediment, indicated that contaminant concentrations were not significantly higher than those in benthic invertebrates at reference sites. In addition, tissues of plants, fish, and small mammals showed no indication of bioaccumulation of constituents and native populations of these species did not appear affected by localized arsenic concentrations in sediments. A field survey also indicated that the tidal wetland provided good habitat quality for the California clapper rail and a habitat equivalent to nearby reference sites for the salt marsh harvest mouse. The ecological assessment concluded that the tidal wetland is not generally affected by contaminants from the site.

As discussed in **Response CCCR-51**, the tidal marsh restoration design presented in the Habitat Restoration BOD and the Draft EIR includes breaches and channels sized using hydraulic geometry relationships, with selected design dimensions between the smaller, likely long-term dimensions based on marsh area and the larger dimensions that would correspond to the initial tidal prism immediately after breaching. The breach and channel dimensions will be refined in the detailed design phase based on the results of hydrodynamic modeling. The Habitat Restoration BOD also notes that new tidal channels would be similar width and depth as the filled channel to allow for similar hydraulic conveyance as the filled channel. Based on the location of the replacement channel in Laumeister Marsh, the ecological assessment sampling which indicated that the concentration of arsenic in sediment nearest the replacement channel does not exceed protective ecological target levels, and given that the new tidal channel would be similar depth as the filled channel, the replacement channel as shown in Figure 21 of the Habitat Restoration BOD is not anticipated to result in substantial increases in exposure of slough or marsh species to adverse arsenic concentrations.

Comment CCCR-71

"North of Bay Road Reach: IMPACTS HAZ-1, C-HAZ-1, AIR-3, HYD-1, and BIO-1

This reach borders the Romic Environmental Technologies/Bay Road Holdings sites, as described in DEIR Table 3.10-1 and page 3.10-22. The Romic hazardous waste processing site, adjacent to the planned levee location, stored solvents in unlined ponds on the property. The primary constituents of concern (COCs) are chlorinated and aromatic volatile organic compounds (CVOCs and AVOCs). The principal CVOC is trichloroethene (TCE). Residual dense non-aqueous phase liquid (DNAPL) has migrated downward from the ground surface into the underlying aquifer to depths of 80 feet. Light non-aqueous phase liquid (LNAPL) is present in the northern part of the site.[39].

The DEIR (page 3.10-19) states that following the protocols in Sycamore Real Estate's *Area-Wide Risk Management Plan for the Ravenswood Industrial Area*[40] will reduce potential HAZ-1 impacts to LSM. That plan, which was approved by the RWQCB and incorporated into the Land Use Covenant for the Sycamore properties[41], is intended to apply to future development activities. It does include procedures to be followed in the event of soil excavation, trenching, and dewatering, but not at the level of detail needed for the SAFER project. It defers to the contractors in future projects the requirement to conduct human health risk assessment and prepare a Health and Safety Plan if soils or groundwater exceed screening levels, critical requirements for meeting the mitigation requirements of HAZ-1, C-HAZ-1, and AIR-3. Although the Sycamore plan may be cited as procedures approved by regulators for other purposes, it cannot replace a reach-specific health risk assessment, Health and Safety Plan, and Soil Management Plan in satisfying the requirements of MM HAZ-1 and MM HAZ-2."

[Comment Footnotes:

[39] USEPA, 2023. *Bay Road Holdings, RCRA Site Climate Vulnerability Assessment Technical Memorandum*.
[40] Ninyo and Moore, 2021. Area-Wide Risk Management Plan, Identified Properties Within the Ravenswood Industrial Area. East Palo Alto, California. c/o Sycamore Real Estate Investments LLC.
[41] Johnson, M. 2022. Covenant and Environmental Restriction on Property, Sycamore Properties within the Ravenswood Industrial Area. RWQCB, May 12,2022.]

Response CCCR-71

The first part of this comment refers to the Romic Environmental Technologies/Bay Road Holdings site (also called 2081 Bay Road). The second part of the comment discusses the Area-Wide Risk Management Plan for the Ravenswood Industrial Area ("Sycamore plan"). The Area-Wide Risk Management Plan explicitly excludes the Romic Environmental Technologies/Bay Road Holdings site from plan coverage, as shown in Section 2 of the Area-Wide Risk Management Plan (which lists the properties to which the plan applies).

Draft EIR Impact HAZ-3 appropriately discusses these sites separately (refer to Draft EIR page 3.10-23). To clarify the application of Mitigation Measures HAZ-1 and HAZ-2, which apply to all reaches and where adopted plans are not in place, Draft EIR Impact HAZ-3 discussion of the Romic Environmental Technologies/Bay Road Holdings site has been revised (refer to Chapter 4 of this document, *Draft EIR Revisions*).

Comment CCCR-72

"Adjacent to 2081 Bay Road, the levee will border an area of ROMIC/Bay Road Holdings that contains a groundwater recirculation system, a biobarrier, injection wells, and LNAPL recovery from

a well at the northeastern area of the site, where the highest concentrations are present (DEIR page 3.10-33). These systems are used to promote natural attenuation of CVOCs and to prevent contaminated groundwater from entering the Bay. The DEIR states "dewatering could temporarily counteract the effectiveness of the injection wells located along the northeastern boundary of the site" but does not address longer-term impacts on site remediation if the systems are shut down for lengthy periods, damaged or destroyed. A USEPA Climate Vulnerability Assessment concluded that cessation of injection and resulting seawater intrusion may lead to changes in groundwater geochemistry, reducing natural attenuation and extending the duration of the remedy.[(42)] To justify the findings of LSM for HYD-1b and BIO-1, the EIR should provide more detail on the extent and duration of impacts on existing remediation systems, and how any increase in migration of contaminants to the Bay will be monitored and mitigated."

[Comment Footnote:

[(42)] See USEPA, 2023 above.]

Response CCCR-72

Construction or operation of the Project would not directly affect the remediation systems operating at the Romic Environmental Technologies/Bay Road Holdings site. As discussed in Draft EIR Impacts HAZ-3 and HYD-1, during Project construction the pumping of groundwater from excavated areas east of the Romic Environmental Technologies/Bay Road Holdings site could temporarily indirectly affect operation of remediation wells by redirecting groundwater flow toward dewatered areas. The Project would not permanently alter the existing ongoing remediation at Romic Environmental Technologies/Bay Road Holdings because it would not continue to dewater once construction is complete and would not directly remove, damage, or destroy remediation system equipment. Without additional explanation of an impact mechanism, it would be speculative to identify another foreseeable impact on the remediation system caused by the Project. As the commenter notes, the U.S. Environmental Protection Agency Climate Vulnerability Assessment concluded that seawater intrusion into the groundwater could reduce natural attenuation; however, as discussed in **Response BCDC-30**, the Project would not affect the rate of seawater intrusion at the Romic Environmental Technologies/Bay Road Holdings site.

Comment CCCR-73

"Infinity Auto Salvage: The DEIR (page 4-38) rejected an alignment of SAFER west of this property based on "potential soil and groundwater contamination concerns." However, the new alignment may also encounter contamination. In July 2024, a fire at the junkyard destroyed cars and auto parts, generating a large smoke plume that traveled eastward over the marsh (see image below). Auto junkyard fires generate heavy metals and products of incomplete combustion such as cyanide, polycyclic aromatic hydrocarbons (PAHs) and polychlorinated dibenzo-dioxins and -furans (PCDD/PCDFs). No follow-up sampling was performed. The sampling and analysis plans for this reach should require testing surface soils for these chemicals.

[Refer to photo on page 45 of this comment in Appendix RTC-1]"

Response CCCR-73

Please refer to **Response CCCR-63**. Mitigation Measure HAZ-2 requires soil testing and development of 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 prior to excavation in areas previously documented as having contaminated soil or groundwater.

Comment CCCR-74

"Water is central to this project, both as an approaching hazard from the rising Bay levels and increasingly extreme storms, and as a critical environmental resource at risk from pollution, toxic contaminants, and hydrologic disruption.

Regarding water quality, we ask that you read our comments on Chapter 3.10 (Hazards and Hazardous Materials) carefully. Significant content there has direct application to impact analysis in this section.

The Project proposes to construct approximately seven miles of levees, flood walls and nature-based infrastructure, along with associated trails and channel modifications. These actions have the potential both to reduce flood risk and to exacerbate hydrologic, water quality, and wetland impacts if not carefully designed and analyzed. The Project also proposes to build out in phases, near-term phases labelled "project" while future-term phases are labelled "program.""

Response CCCR-74

Please refer to **Responses CCCR-59** through **CCCR-73** for responses to comments in this submittal addressing hazards and hazardous materials. With respect to the designation of project- and program-level reaches, as indicated in the Draft EIR (e.g., page 1-3), those Project components for which 30-percent design is available are generally evaluated at a project level of detail and those Project components for which conceptual (generally 10-percent) design information is available are generally evaluated at a program level of detail.

Comment CCCR-75

"Hydrological modelling

In multiple locations, the Project proposes to dredge channels in open waters, fully tidal marshes, l and former salt ponds, to reconnect, replace and create new connecting channels. In all cases, these actions would alter the hydraulic characteristics within tidal prisms. However, the DEIR neither includes nor proposes hydrologic modeling to assess how altered channel geometry and alignments would affect tidal flows, circulation patterns, sediment transport, or adjacent wetlands.

We strongly recommend hydrological modelling to evaluate whether redirected flows could produce unanticipated impacts and to inform whether alternate alignments or channel design characteristics would better protect wetland function and water quality. This analysis is particularly important for the proposed replacement channels in Faber and Laumeister marshes, where tidal connectivity and internal flow patterns are critical to marsh health."

Response CCCR-75

Please refer to **Response CCCR-51**.

Comment CCCR-76

"We also have great concern about the Project's channel proposals North of Bay Road. In this reach, the levee is proposed to cross East Slough, the primary conduit supplying wetlands landward of the Ravenswood Open Space Preserve (ROSP) trail. North of Bay Road is identified as a future/program

phase for which the DEIR provides little detail, yet the DEIR proposes a relatively small replacement channel through the ROSP trail as mitigation. Absent hydrologic modeling, it is not possible to determine whether this proposed channel would adequately maintain tidal exchange or avoid adverse impacts to inland wetlands."

Response CCCR-76

Please refer to **Response to CCCR-51**.

Comment CCCR-77

"In the 2024 Ravenswood Business District and 4 Corners Specific Plan (RBDSP),[43] the City of East Palo Alto rezoned the privately-owned wetlands at 391 Demeter to Parks and Open Space, reserving them for restoration and touting that "over 16 acres of restored wetlands and natural open space would be protected and put under long-term management."[44] A stable and sufficient supply of tidal waters is essential to the success of that restoration. We strongly recommend that any actions planned for the North of Bay Road reach include robust hydrology studies, developed with guidance from an SFEI-prepared vision study for tidal resilience addressing all wetlands in this reach from the shoreline to the Open Bay."

[Comment Footnotes:

[43] East Palo Alto, 2024, Ravenswood Business District & 4 Corners Specific Plan 12/17/2024 (final, adopted): https://www.cityofepa.org/sites/default/files/fileattachments/planning/page/9021/ravenswood_business_district_4_corners_specific_plan_final.pdf

[44] Ibid., 80.]

Response CCCR-77

Please refer to **Response CCCR-51**.

Comment CCCR-78

- "**Faber-Laumeister Unit Management**: As noted earlier in this letter, several statements in Chapter 3.11 incorrectly describe land ownership and management authority. These errors could lead to inappropriate assumptions or actions. Please correct the statements identified on page 3.11-3 (2 statement errors) and pages 3.11-33 and 3.11-34, and review the chapter for any additional misstatements."

Response CCCR-78

Please refer to **Response CCCR-12**.

Comment CCCR-79

- "**Flood Slough Setting** The description of Flood Slough on page 3.11-5 is substantially inaccurate. We recommend revising the text to read as follows: "*Flood Slough, a tidal water body, is the receiving channel for Bayfront Canal and extends bayward between Bedwell Bayfront Park and the Cargill-owned salt ponds before connecting with Westpoint Slough. It forms a boundary between Menlo Park and Redwood City.*""

Response CCCR-79

The first paragraph under Flood Slough on Draft EIR page 3.11-5 has been revised, (refer to Chapter 4 of this document, *Draft EIR Revisions*). This revision does not alter the findings and conclusions presented in the EIR.

Comment CCCR-80

- "**Regulatory Setting** Discussions of local regulations relevant to East Palo Alto are limited to Vista and General Plan references. Notably absent is any substantive discussion of the 2024 RBDSP, which includes extensive shoreline policies and mitigation requirements applicable from approximately Weeks Street in the South of Bay Road reach through the entirety of the North of Bay Road reach. The RBDSP Mitigation & Monitoring Plan, compiled from the approved FEIR, includes shoreline-specific mitigation requirements, many of which pertain directly to biological resources and water quality, that need to be applied to Project actions. A footnote on page 3.11-27 states that the RBDSP is discussed in the Land Use section; however, that one paragraph discussion does not identify or apply RBDSP shoreline policies or mitigation measures. Please revise Chapter 3.11 to integrate applicable RBDSP shoreline policies and mitigation guidance to ensure Project actions comply with adopted City expectations."

Response CCCR-80

The Draft EIR contains general discussions of consistency with plans and policies pursuant to CEQA Guidelines subsection (d) of section 15125, Environmental Setting. Policy conflicts do not, in and of themselves, indicate a significant environmental effect within the context of CEQA environmental review, in that the intent of CEQA is to determine physical effects associated with a project. As indicated in the Draft EIR (p. 3.1-3):

> Land use plans typically contain numerous policies emphasizing differing legislative goals, and an interpretation of consistency requires a balanced understanding of relevant policies. The board, commission, or city council that adopted the plan determines the meaning of such policies and how individual projects satisfy those policies at the time it considers approval of a project. Whether the proposed Project is consistent with a plan would be determined at the time of Project approval by the agency charged with making that consistency determination. In each case, the approving or reviewing agency will consider any potential inconsistencies between the Project and adopted plans or policies in the context of applicable objectives and policies and will determine consistency based on a balancing of relevant policies as part of the approval process.

In this case, the City of East Palo Alto would determine consistency with city policies; here, the approved Specific Plan recognizes the SAFER Bay Project and emphasizes the importance of integrating the SAFER Bay Project with the Specific Plan. Similarly, the Draft EIR considers the Specific Plan in its list of past, present, and reasonably foreseeable future projects evaluated as part of the cumulative analysis.

Consistent with CEQA (sections 15125[a][1], 15126.2[a], et seq.), the SAFER Bay Project's impacts are determined by comparing with-Project conditions with the existing physical environment and mitigation measures are identified for significant impacts. Those mitigation measures will be assembled into a mitigation monitoring and reporting program prepared for the SAFER Bay Project. Consistency with City plans and policies will continue to be considered for the SAFER Bay Project during consideration of applicable City approval actions.

The SAFER Bay Project Team recognizes the importance of continued coordination and collaboration with agencies and stakeholders and will continue to endeavor to work collaboratively to ensure that implementation of the Project remains aligned with applicable plans and policies, with the goal of supporting integrated planning, shoreline protection, and long-term community and environmental resilience.

Comment CCCR-81

"Omitted Analysis of Trash Pollution

In 2015, the State of California adopted standards to regulate trash pollution. The Water Quality Control Plan, Chapter III - Water Quality Objectives provides that:: "Trash shall not be present in inland surface waters, enclosed bays, estuaries, and along shorelines or adjacent areas in amounts that adversely affect beneficial uses or cause nuisance."

The DEIR did not analyze trash pollution. It proposes that most of its approximately seven miles of shoreline protection will support elevated public trails, which will attract thousands of people bringing all sorts of materials with them that may be transported into adjoining wetlands by wind, stormwater or human carelessness and end up as trash pollution. Animal feces, primarily dog, will add bacterial pollution. While the Water Board recognizes that trash pollution can never be eliminated, it is expected that substantial effort be made to minimize its environmental impact.

The DEIR explained that stormwater from levee-top trails would drain toward the Bay as an uncontrolled pollutant source. We strongly recommend that the DEIR add impact analysis of trash pollution and include mitigation that would change levee trail design to direct stormwater drainage landward where pollutants could be captured in adjoining drainage channels with downstream filters to remove larger trash items before they enter the Bay."

Response CCCR-81

Under existing conditions, publicly accessible trails border the San Francisco Bay along most of the same alignment as the Project. As discussed in Draft EIR Section 3.14, Population and Housing, the Project would not induce substantial unplanned population growth, either directly or indirectly. Therefore, the Project is not expected to substantially increase the potential for trash pollution in San Francisco Bay. As discussed in Draft EIR Impact HYD-1, page 3.11-40, stormwater drainage of the Bay Trail would be designed consistent with BCDC's Bay Trail design guidelines and toolkit.

Comment CCCR-82

"Impact HYD-1: Water Quality Degradation

"Violates any water quality standards or waste discharge requirements or otherwise substantially degrades surface or groundwater quality."

1990 Bay Road Outfall in East Slough When describing the ROSP on p.3.11-3, the DEIR states: "A storm drain system within the 1990 Bay Road property discharges to an outfall located in a tidal channel (East Slough)." As discussed in the Hazards and Hazardous Materials Chapter, this property is known to have contaminants present, a fact prompting our concern that contaminants may have been transported to East Slough. The DEIR does not discuss the alignment of the drainage system on the 1990 Bay Road property, yet it could have significant implications for water quality conditions in the slough, fish, and adjacent marsh habitats. Please report what is known about this outfall connection and, if unknown, what actions will be taken to assess it."

Response CCCR-82

As discussed in Draft EIR Impact HAZ-3, contamination at the 1990 Bay Road site is currently capped and the site is managed to avoid the release of contaminated materials into the environment. An asphalt cap that varies in thickness from 6 to 9 inches covers the entire former plant area portion of the 1990 Bay Road property except where structures are located. A geosynthetic clay liner overlain by 1 foot of imported fill covers the former non-tidal marsh area of the property. To prevent additional water quality degradation, stormwater that falls on the cap is routed north to the outfall in East Slough north of Bay Road.[37] Drainage in East Palo Alto is discussed in Draft EIR Impact HYD-3.

Comment CCCR-83

> "**Construction Analysis** A major weakness of the DEIR is the failure to provide detailed information about construction methods, equipment, impacts beyond the levee footprint, control of contaminants (air particles, vehicle fluids, invasive plants) and placement and control of soil piles and more. That omission makes it impossible for a reader to reasonably assess construction-phase impacts or evaluate the adequacy of proposed mitigation. Beginning with the Project Description, and continuing throughout the DEIR, we recommend providing detailed construction information accompanied by appropriate impact analysis."

Response CCCR-83

Refer to **Response CCCR-11**. The Draft EIR's project description (Chapter 2) includes descriptions of construction phases and activities for the shoreline protection, recreation, and levee T-zones (Table 2-5) and the habitat improvements (Table 2-6). Draft EIR Figures 2-7 through 2-26 show the levee footprint and construction staging areas, and figures in Draft EIR Appendix CONST includes maps of the Project construction limits which extend beyond the levee footprint. Numerous impacts evaluated in the EIR address impacts beyond the Project's footprint (e.g., aesthetics, air quality, biological resources, hazards and hazardous materials, water quality, transportation, energy, greenhouse gas emissions). Draft EIR Impact AIR-2 (page 3.3-25 et seq.) discusses impacts of construction-phase exhaust emissions, particulate matter, and evaporative emissions of reactive organic gas from paving activity. Draft EIR Impact HYD-1 (page 3.11-30 et seq.) discusses construction-phase impacts on water quality. Draft EIR Impact BIO-2 (page 3.4-67 et seq.) evaluates impacts on wetland habitats and includes invasive plant control in Mitigation Measure BIO-26 (Habitat Restoration Monitoring Plan). No revisions to the EIR are required.

Comment CCCR-84

> "**In-Water Dredging** The DEIR discussion of in-water dredging excludes several locations where the Project proposes they will occur. Replacement channels described in Faber, Laumeister marshes and the proposed cut-through in the ROSP trail would all involve dredging in wetlands within fully tidal prisms. Most significantly, the DEIR omits analysis of the in-water dredging needed to construct a levee through the fully tidal East Slough, the principal tidal tributary serving the marshes north of Bay Road.
>
> All of these replacement channels, if built, would require significant mitigation to minimize damage to marsh integrity and to fish, marsh birds and mammals. The DEIR must describe dredging methods

[37] S.S. Papadopulos and Associates, Inc., 2020. *Construction Risk Management Plan Addendum to the Comprehensive Site Management Plan, 1990 Bay Road Site.* December 2020.

in detail for all of these locations and make the information available for public review. Given the scope and import of these omissions, revised analysis should be recirculated."

Response CCCR-84

As listed in Draft EIR Table 2-6, the Project would dredge the outboard slough channel in Ravenswood Slough at Pond R1. Unlike unconfined open water dredging, the type of excavation that would occur for the Project to construct replacement channels in Faber and Laumeister marshes and for other habitat improvements would be in shallow water, in areas where the work location could be isolated from circulating bay waters.

The potential effects of construction activities in the wetlands identified by the commenter, including impacts on fish, marsh birds, and mammals, are evaluated in Draft EIR Section 3.4, Biological Resources. For example, Impact BIO-1c (Special-Status Fish and Essential Fish Habitat; p. 3.4-33) discloses that construction activities could affect special-status fish species or essential fish habitat within the program area. Installation of sheet pile walls has the potential to result in fish stranding if fish are trapped in excavated areas or within coffer dams around work areas; rescue and relocation efforts for stranded fish may result in physiological stress, including injury or mortality for some individual fish; noise and vibration disturbance could occur during use of heavy equipment in or near aquatic habitats, potentially leading to injury or mortality to fish in the area; reduction in water quality in ponds, sloughs, and bay waters due to mobilization of sediments or contaminants (e.g., leaks from construction equipment) during construction may also result in injury or mortality to fish; and permanent loss of fish habitat would occur. The Draft EIR concluded that, with implementation of Mitigation Measures BIO-1, BIO-5, BIO-14, BIO-24, and BIO-25, these impacts would be less than significant.

Impact BIO-1e (Special-Status Marsh Birds; p. 3.4-43) discloses that construction activities could directly affect these special-status marsh birds and the habitats that they rely upon. Use of heavy equipment for site preparation/mobilization, demolition, and shoreline protection construction could result in injury or mortality of adults, eggs, and/or chicks. All construction activities could cause disruption of foraging behavior, and may also cause disturbance to breeding adults, potentially resulting in abandonment of active nests and/or chicks. Increased disturbance from construction activities may also attract predators, resulting in increased mortality of adults, eggs, and/or chicks. Disturbance of marsh habitats during construction could facilitate invasion by non-native plants, such as perennial pepperweed, which may exclude native vegetation and reduce vegetative cover and habitat quality for marsh birds. Following construction, marsh birds may face increased disturbance in habitats adjacent to public trails, possibly including off-trail trespass into the transition zone and high marsh, resulting in avoidance of these areas and functional loss of these habitats. The Draft EIR concluded that, with implementation of Mitigation Measures BIO-1, BIO-5, BIO-14, BIO-15, and BIO-16, these impacts would be less than significant.

Impact BIO-1j (Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew; p. 3.4-62) discloses that construction activities, including site preparation/mobilization, demolition, grading, drainage/water control, and shoreline protection construction, may cause both direct and indirect impacts on the salt marsh harvest mouse and salt marsh wandering shrew. Use of heavy equipment may result in injury or mortality to individuals present within suitable habitat. In addition, installation of sheet piles to dewater work areas and construction of flood control features could either temporarily or permanently alter hydrology in marshes and eliminate high-tide refugia needed to evade predation, reducing habitat quality

for these species and affecting their ability to survive. The Draft EIR concluded that, with implementation of Mitigation Measures BIO-1, BIO-5, BIO-14, BIO-24, and BIO-25, these impacts would be less than significant.

Overall, Draft EIR Section 3.4 includes 27 mitigation measures, of which 17 would protect fish, marsh birds, and mammals.

Regarding the last sentence in the comment, an implicit purpose of circulating a draft EIR for public review is to identify and mitigate impacts that were not identified in the Draft EIR. However, recirculation of an EIR is only required when significant new information, as defined in CEQA Guidelines section 15088.5, is added to the Draft EIR before certification. The addition of analysis or mitigation measures is not necessarily significant new information; for example, the addition of mitigation measures is not considered new information unless proposed mitigation measures cannot reduce a new impact to a less-than-significant level, or the proposed mitigation measures have significant and unavoidable impacts. The EIR does not need to be recirculated.

Comment CCCR-85

> "**Salinity and Metals, Pond R3, R5 and S5 (p.3.11-39)** The DEIR states that Project activities would not affect salinity in managed ponds because operations would not be altered. However, the DEIR elsewhere acknowledges that changes in channel depth and width can affect water quality. For Pond R3, page 3.11-38 notes that proposed borrow ditches would be wider and deeper, potentially increasing wind fetch and mixing. Please revise the discussion to reconcile these statements and clarify whether and how altered channel geometry could affect salinity and metals in Pond R3."

Response CCCR-85

Salt ponds increase salinity (salt concentration) to levels high enough for precipitation to occur through evaporation. Evaporation rates are driven by the area of the water surface, the temperature of the water and the air, the humidity, and the velocity of the air. Although a slight increase in velocity due to greater wind fetch, on the order of 30 feet, and greater size of water surface could increase evaporation from the ponded areas of Pond R3, the ponded area would also hold more water because it would be deeper. As noted on Draft EIR page 3.11-37, regarding former salt ponds during Project operations, ponds that remain seasonal would be actively managed to ensure that water levels and water quality are maintained to meet the biological requirements specified in Draft EIR Chapter 2, *Project Description*. Once the habitat improvements are completed, the SBSPRP team and the Refuge would adaptively manage the restoration in accordance with the SBSPRP's Adaptive Management Plan. As discussed in Draft EIR Impact HYD-1 (p. 3.11-39), under existing conditions, water quality monitoring for salinity is conducted from June through November on a weekly basis at the discharges from Ponds SF2 and R5/S5 in accordance with the SBSPRP's Adaptive Management Plan. The SBSPRP's Adaptive Management Plan requires implementation of adaptive management actions should salinity levels exceed thresholds protective of water quality. Application of the SBSPRP's Adaptive Management Plan to Ponds R3 and SF2 would reduce or avoid water quality impacts related to salinity and metals.

Comment CCCR-86

"Methylmercury (p. 3.11-40)

As described in the DEIR, the occurrence of methylmercury in wetland habitats is not only an indicator of mercury contamination but in a form that leads to transfer to the food chain and serious consequences for wildlife.

The DEIR discusses exposure for lands adjoining the project, focusing on Refuge land. We are concerned that no assessment was made regarding the wetlands of the ROSP nor marshes landward of the Preserve. Exposure of that wetland habitat would also pose a significant threat to wildlife. Please extend the methylmercury analysis to include the Preserve and adjacent marshes.

Mitigation Measure HYD-1a: Master QAPP for Imported Terrestrial Fill

We are aware that the USFWS takes great care to protect the soil quality of Refuge habitats and the health of wildlife that use it. The Master QAPP was revised in 2024, but the DEIR references an earlier version. Please request it from the Refuge and update the DEIR as needed to reflect the current QAPP and revise Footnote 78 accordingly."

Response CCCR-86

As shown in Chapter 4, *Draft EIR Revisions*, of this document, footnote 78 has been updated to reference the most recent Master QAPP.

As noted in the Draft EIR (p. 3.11-40), as part of the evaluation of Phase 2 of the SBSPRP, the RWQCB indicated that due to the regional setting of the Ravenswood ponds (the Project area), the risk that introduction of bay ambient sediments could increase bioaccumulation of mercury in the area was not considered substantial. The Ravenswood Open Space Preserve wetlands are in the same regional setting as the SBSPRP Ravenswood ponds. In addition, as noted in the Draft EIR, the data and studies available suggest tidal restoration may reduce methylmercury production but can potentially increase overall methylmercury supply because of greater hydrologic exchange. The Project would not increase hydrologic exchange in the Ravenswood Open Space Preserve or adjacent marshes, both of which are already exposed to tidal action (the latter via East Slough). As discussed in **Response CCCR-76**, the Project includes channel realignment to allow continued tidal connectivity to the marshes west of Ravenswood Open Space Preserve. Therefore, the Project is not anticipated to substantially increase mercury bioaccumulation or methylmercury production, including due to channel realignment near Ravenswood Open Space Preserve.

Comment CCCR-87

"**Unknown Sites of Contaminants** On p. 3.11-12, the DEIR acknowledges that "[d]redging of bay material can uncover and remobilize sediment-bound contaminants…" Given the local history of buried contaminants and fill along the shoreline, it is reasonable to expect that previously undetected contaminants could be encountered during dredging or levee construction. During the Alviso levee project, for example, while dredging to remove the existing levee, the USACE exposed a large, dense area contaminated with hydrogen sulfide. Apparently the [H_2S**]** was generated as buried marsh decayed, sealed within the old levee. These soils had to be removed and degassed.(45) We recommend that the Project establish a BMP as mitigation requiring protocols for responding to unanticipated contaminant events."

[Comment Footnote:

(45) Personal email, 1/18/26, to E.McLaughlin from D. Halsing, Executive Manager, South Bay Salt Pond Restoration Project.]

Response CCCR-87

As discussed in Draft EIR Impact HYD-1 (page 3.11-32), the Project would be subject to the interagency Dredged Material Management Office requirements for dredging and dredged materials. Prior to dredging, a sampling and analysis plan (or quality assurance project plan) specific to the sediment to be dredged would be prepared. Sediment characterization would occur according to the sampling plan prior to dredging. In addition, Draft EIR Mitigation Measure HAZ-1 requires preparation and implementation of a HSP, which must include procedures to follow if evidence of potential soil or groundwater contamination is encountered. Draft EIR Mitigation Measure HAZ-2 would require implementation of a soil management plan for areas within or adjacent to known contaminated sites along the shoreline, including training for workers to identify potential soil contamination.

Comment CCCR-88

"Runnymede Pump Stations, Stormwater Systems

We are aware and the DEIR explains that an effective inboard drainage system is required to meet National Flood Insurance Program requirements. That issue is relevant as it recognizes that the shoreline flood infrastructure introduces new risks of stormwater flooding inboard. New or improved inboard stormwater drainage is required to mitigate the risk. For this Project we believe those actions pertain to the existing O'Connor/Runnymede drainage canal that will be improved as part of the Project.

That brings us to the Runnymede Pump Station. This Pump Station is an element in the City 2014 Stormwater Master Plan. The Utility Plan of the RBDSP assumed it would be built. Presumably it and all the new stormwater conveyance is a City responsibility.

How then did the design of a Runnymeded Pump Station become part of this Project and be presented as mitigation in MM HYD-2a? More than that, proposed as design only, not build. What can it actually mitigate?

We recommend that the DEIR clarify and add substantive detail regarding the separation of Project and Municipal stormwater actions. Please identify responsible parties. Unless somehow clarified as Project responsibility and converted to provide actual mitigation, we also recommend removal of the existing MM HYD-2a. HYD-2a does not propose construction of such a system and therefore does not function as mitigation under CEQA."

Response CCCR-88

The commenter states that the existing O'Connor/Runnymede drainage canal will be improved as part of the Project. This is not correct. As stated in Draft EIR Chapter 2, *Project Description*, a portion of the Runnymede Drainage Ditch near the middle of the South of Bay Road Reach would be relocated west of the proposed levee where the levee toe would overlap the existing ditch. The relocated stormwater drainage ditch would continue to function as under current conditions and drain to Bayshore Pond. The O'Connor Pump Station would not be altered by the Project.

The commenter states that the Runnymede Pump Station is part of the 2014 Storm Drainage Master Plan. This also is not correct. The Runnymede Pump Station was identified in the 2024 Utility Impact Study for the Ravenswood Business District Specific Plan.

The commenter asks how the design of the Runnymede Pump Station became part of the Project and included in Mitigation Measure HYD-2a, and states that Mitigation Measure HYD-2a does not propose construction of a pump station. The latter is not correct. As shown on Draft EIR page 3.11-48, Mitigation Measure HYD-2a requires that a conveyance or other facility be included in the Project to ensure that discharge from Runnymede Street is conveyed to San Francisco Bay. As discussed in Draft EIR Impact HYD-3, if the Project is built after Runnymede Pump Station is completed, the Project would block discharge from Runnymede Pump Station from flowing to San Francisco Bay as currently planned for Runnymede Pump Station. If the Runnymede Pump Station has not been constructed by the time the Project is under construction, the measure requires incorporating a pump station, stormwater detention storage, or other conveyance into the Project because the Project would eliminate the eastern gravity outfalls that require installation of the Runnymede Pump Station. To clarify the purpose of Mitigation Measure HYD-2a, the measure text on Draft EIR page 3.11-48 has been revised (refer to Chapter 4 of this document, *Draft EIR Revisions*), including by renaming the measure to "Runnymede Street Stormwater Management." This change does not affect the conclusions in the EIR.

Comment CCCR-89

> "The Land Use section appropriately summarizes high-level policy frameworks for surrounding jurisdictions. This information is helpful as a basis for conclusions that the Project will not be in conflict with those major policies. However, it does not identify action-level mitigation requirements contained within those same policy documents that should guide Project design and implementation.
>
> The 2024 Ravenswood Business District/4 Corners Specific Plan is such a document.(46) The DEIR discusses the RBDSP several times in brief under Land Use, concluding the Project does not conflict. However, it does not analyze or apply the RBDSP's shoreline-specific mitigation measures, many of which are directly relevant to Project actions. There is no DEIR guidance given to look into documents like this one, especially as it is of recent vintage, for mitigations that may apply, and which the Project must use to satisfy the City. These measures are contained in the RBDSP Mitigation and Monitoring Plan, compiled from the RBDSP FEIR, and apply continuously from just north of Runnymede Street in the South of Bay Road Reach through the North of Bay Road reachuntil, approximately, the railroad tracks that formerly provided a Bay crossing. To ensure consistency with City expectations and avoid future conflicts, the DEIR should incorporate applicable RBDSP mitigation requirements (as well as similar local constraints in other jurisdictions) into its analysis and mitigation."
>
> [Comment Footnote:
>
> (46) Ravenswood Business District/4 Corners Specific Plan, Final Adopted 12/17/2024: https://www.cityofepa.org/sites/default/files/fileattachments/planning/page/9021/ravenswood_business_district_4_corners_specific_plan_final.pdf]

Response CCCR-89

Refer to Response **CCCR-80.**

Comment CCCR-90

"The DEIR concludes that construction noise impacts would be significant and unavoidable despite implementation of standard mitigation measures. We agree that construction noise presents a substantial concern given the Project's scale, duration, and proximity to sensitive receptors. However, the DEIR does not adequately consider the use of electric or zero-emission construction equipment as a feasible noise-reduction measure.

The DEIR acknowledges that electric construction equipment can reduce noise but dismisses its use based on uncertainty regarding current availability and access. Given the Project's extended, phased construction timeline, this conclusion should be reconsidered. Availability of electric construction equipment is expected to increase over time, and CEQA allows mitigation measures to be framed in conditional, feasibility-based terms.

The Final EIR should include a mitigation measure requiring the use of electric or zero-emission construction equipment, where commercially available and feasible at the time of construction, particularly in areas adjacent to sensitive receptors. This measure would directly reduce construction noise and vibration impacts and is consistent with evolving industry practices and state policy direction.

Incorporating this requirement would also provide co-benefits by reducing construction-related air pollutant and GHG emissions, and would strengthen the basis for the DEIR's conclusions regarding construction-period impacts."

Response CCCR-90

The commenter correctly indicates that the Draft EIR concludes construction noise impacts would be significant and unavoidable even with the implementation of Mitigation Measure NOI-1; however, the commenter incorrectly asserts that the Draft EIR does not adequately consider the use of electric or zero-emission construction equipment. The Draft EIR states (p. 4-11), "less noisy equipment can be used for the installation of sheet piles … ." This statement is not a direct reference to electric construction equipment, but rather a reference to potentially quieter means and methods of pile driving specifically. Regarding pile-driving equipment, Draft EIR p. 3.13-20 explains "feasible alternative locations and/or methods for the driving of sheet piles necessary for the Project are not available." Regarding other construction equipment, Mitigation Measure NOI-1 (Draft EIR pp. 3.13-29 and 3.13-30) specifically requires the preparation of a noise control plan that describes measures for reducing construction noise levels, such as, but not limited to, the use of equipment that has the best available noise control technique and the use of hydraulic or electrically-powered impact equipment. Thus, the Draft EIR already includes provisions that allow for the use of electric equipment to reduce and avoid potential construction noise impacts which, if implemented, would also reduce construction-related emissions. The Draft EIR estimates Mitigation Measure NOI-1 could reduce noise levels by up to 10 A-weighted decibels, which would reduce, but not avoid non-pile-driving impacts in the South of Bay Road and Marsh Road reaches.

Notwithstanding the above, as described in Section 1.4 of this document, the SAFER Bay Project Team is proposing an environmental commitment toward utilization of electric or zero-emissions construction equipment. Refer also to **Response CCCR-53** for detailed information regarding the availability of electric or zero emission construction equipment.

Comment CCCR-91

"The SAFER Bay DEIR proposes adding, improving, relocating, and decommissioning several miles of trails across the eight different reaches. These trails would be wider and placed on or adjacent to new levees and other flood protection features installed across the shoreline. We generally support well-planned public access where it can be achieved without compromising flood protection, water quality, and biological resource objectives. However, we have several concerns regarding trail usage induced by the Project that could result in greater impacts and pressure on mixed users and the surrounding sensitive ecosystem. Please include standards, as described below, to minimize likely impacts."

Response CCCR-91

Section 2.4 (beginning on Draft EIR page 2-4) describes recreation improvements proposed as part of the Project. As indicated on Draft EIR page 2-14, "Where the Bay Trail would be replaced or extended, the segments would incorporate design standards adopted for the Bay Trail…. The reconstructed portions of the Bay Trail along the new levee tops would be paved; would include signage, viewing points, benches, and access points … and would be designed in compliance with the Americans with Disabilities Act (ADA)." Regarding trail usage, refer to **Response CCCR-92**. Refer to EIR Chapter 2, *Project Description*, which identifies design features (e.g., seasonal closure of trail segments) and EIR Section 3.4, Biological Resources, which identifies numerous mitigation measures (e.g., BIO-12 through BIO-18) related to protection of nearby sensitive ecosystems.

Comment CCCR-92

"**Trail Standards** We have several concerns related to the 20-foot width standard that has been set for the trails placed on top of the levees. The DEIR uses the Bay Trail Design and Toolkit Guide 2.0 as the basis for all recreational trails in the Project. The 20-foot trail width in the document correlates to trails with anticipated high volume, highly used recreational trails and dense areas. While the Project is expected to have some impact on recreational usage, it is unlikely to increase it to levels that would warrant using a 20-foot trail span. As it states in the *Population and Housing* section, there is no expected population growth as a result of this project, and the trails would remain to be used more locally. Therefore, it should be feasible and consistent with the Project's goals to reduce the width of the trails to the lowest distance possible that still meets safety, maintenance, and access needs.

As mentioned in the Biological Resources section of this comment letter, this project should minimize the amount of wetland habitat it converts into shoreline protection infrastructure. If the project were to set the trail width on top of the levees to the lowest feasible amount, it could help avoid any unnecessary destruction of shoreline habitat. By narrowing the trail on top, the size of the levee base could be reduced, disturbing less wetland. Understanding current trail usage could help determine and set an appropriate width that is able to accommodate habitat, levee function, and maintenance.

In addition to the Bay Trail standard, there are several other complementary documents that could be useful tools for the recreational components of the project. Looking at resources such as ConnectMenlo and the Ravenswood Business District/4 Corners Specific Plan can offer important foundational policies to consider for the SAFER Bay project in regards to lighting, trash, trail usage, and other relevant topics."

Response CCCR-92

BCDC trail standards were one of several factors considered in the proposed levee design. Additional design considerations used in establishing the levee crest width included the California Department of Water Resources *Urban Levee Design Criteria*, Title 23, Division 1 of the California Code of Regulations (January 22, 2010), and the U.S. Army Corps of Engineers *Geotechnical Levee Practice SOP* (April 11, 2008). Collectively, these guidelines recommend a minimum 20-foot levee crest within urban settings to support flood protection, operation and maintenance, and public safety needs. Consequently, the Draft EIR describes and evaluates the impacts of constructing the levees as described in Draft EIR Chapter 2, *Project Description*. The Draft EIR also includes an alternative that reduces impacts on biological resources while meeting applicable design standards.

Wider trail sections up to 20 feet are appropriate for locations where multiple user groups are present, where maintenance and emergency access are required, and where regional trail continuity and resilience are priorities. A wider trail promotes safety and multi-modal conflict resolution and is consistent with the updated regional standards that incorporate new policies including Complete Streets, Vision Zero, and equity-based access planning. These frameworks support wider trail designs where public access is a key Project component. Moving forward, Project designers will utilize the San Francisco Bay Trail Design Guidelines and Toolkit 2.0, published July 2025 by the Metropolitan Transportation Commission and Association of Bay Area Governments. According to the Metropolitan Transportation Commission, design guidelines focus on developing a Bay Trail that "is responsive and tailored to local contexts, provides equitable access for communities who haven't historically benefitted from the Bay Trail, maximizes access to and use by the broadest possible spectrum of people, and is resilient to climate change and sea-level rise." As suggested, future trail design will also consider relevant information from ConnectMenlo and the Ravenswood Business District/4 Corners Specific Plan.

Levee and Bay Trail designs will undergo review by BCDC's advisory boards, among other regulators. The Design Review Board evaluates the appearance and public access components of shoreline projects, including trail alignment and user experience. BCDC's Engineering Criteria Review Board (ECRB) may require a review of the SAFER Bay project's engineering, geotechnical, seismic, and safety aspects of its proposed Bay fill structures such as levees to ensure compliance with the McAteer Petris Act and Bay Plan safety of fill policies. BCDC recognizes that there may be reasons for narrower trails in certain locations. Should BCDC and other agencies with jurisdiction over the levee design and operation and maintenance approve a narrower trail, then the SAFER Bay Project Team could consider that option at that time.

Comment CCCR-93

> "**Dog Waste** The mitigation measure *BIO-14: General Wildlife Impact Minimization Measures* in the Biological Resources section reads "… all dogs must be on leashes and must remain on established trails, and signage indicating these requirements will be placed in key locations." We appreciate the inclusion of on-leash requirements and ask that immediate dog waste removal be included as well on Bay Trails within the project area. Any dog waste left on the trail and in surrounding areas has the potential to become runoff, making its way into the Bay and adjacent habitat. Pet waste runoff is a significant source of pollution and could contaminate the water in the Bay, with negative side effects on wildlife and aquatic species.

Local parks and preserves can face issues with unbagged and left behind dog waste, so incorporating rules and requirements for trail users could help mitigate these effects. By putting into place guidelines the project could decrease the amount of waste left on the trail, and as result reduce the amount of waste entering the Bay."

Response CCCR-93

Refer to **Response CCCR-92** regarding future trail use. The SFCJPA acknowledges that pet waste is a source of pollution to the bay. Both the City of East Palo Alto and Menlo Park already have ordinances that require dog waste be bagged and immediately placed in a trash receptacle.

Comment CCCR-94

"**Trash** As more people use the trails more trash is likely to make it into the Bay and surrounding facilities. As noted in the *Hydrology and Water Quality* of this letter, common trash like plastic bottles, bags, and wrappers can be harmful to local wildlife and can enter ponds, marshes and open waters. The project should actively implement campaigns such as the "Leave No Trace" campaign or other similar efforts to address the potential increase in trash associated with increased recreational usage."

Response CCCR-94

Refer to **Response CCCR-92** regarding future trail use. Because both the Cities of Menlo Park and East Palo Alto have waste management ordinances related to "Leave No Trace," this campaign can be considered as the Project moves to maintenance.

Comment CCCR-95

"**Lighting** There should be minimal need for any light on the levees once construction is completed. Permanent lighting on shoreline trails should be avoided to the maximum extent feasible. Where lighting is shown to be necessary for safety or operational purposes, the DEIR should require, not merely encourage, compliance with Dark Sky-consistent standards (fully shielded fixtures, minimal lumen levels, directional lighting, curfews/timers where feasible) to minimize impact on wildlife."

Response CCCR-95

Pursuant to Mitigation Measure BIO-14, no permanent night lighting will be installed for operations. Each of the entities owning sensitive areas, including Don Edwards National Wildlife Preserve, Midpeninsula Open Space District (Ravenswood Preserve), and the City of Palo Alto (Baylands Preserve) have policies that restrict lighting to protect sensitive habitat and species, including birds and marshlands. Note that the City of Palo Alto has adopted a dark sky ordinance for the Baylands Preserve, which includes the South of Bay Road Reach.

Comment CCCR-96

"**Plantings** Where landscaping is proposed, the DEIR should prioritize native species beneficial to wildlife, especially birds, butterflies, and insects, and avoid plantings that increase invasive species risk or require intensive long-term irrigation and maintenance."

Response CCCR-96

Refer to Appendix BIO3, Section 7 for proposed native plant revegetation throughout the Project area.

Comment CCCR-97

"The DEIR should also evaluate whether trees, light fixtures and other fixtures could become perches for raptors, including bench backs. Perching opportunities increase predation pressure in sensitive habitat areas, negatively affecting birds, fish, and other wildlife."

Response CCCR-97

Pursuant to Mitigation Measure BIO-14, no permanent lighting will be installed by the Project, and any benches installed will be backless unless a qualified biologist determines that the bench occurs in an area that would not provide predatory birds with increased hunting opportunities. On page 65 of Appendix BIO3, *SAFER Bay Habitat Restoration Basis of Design*, the Project-wide levee slope revegetation goals are outlined. The range of target habitats include Salt Marsh-Upland Transition Zone, Grassland with Salt Marsh (Tidal), Grassland with Salt Marsh (Non-Tidal), Grassland, and Short Stature, Moderate Density Grassland. All these habitats are designed to be herbaceous and short-statured so as not to provide perches. Pursuant Mitigation Measure BIO-27, only ecologically appropriate trees will be replanted; therefore, the Project will not plant trees in ecologically inappropriate areas, such as adjacent to tidal salt marsh or managed ponds, where they would provide perches for raptors or corvids.

Comment CCCR-98

"**Identifying temporary trail connections for disrupted access** Construction is going to disrupt several trail access points and recreational facilities such as the Faber-Laumeister Trail and Cooley Landing Park and Education Center. The DEIR assumes that no detour routing will be established to offset any closed trail segments, and leaves such decisions to the discretion of the governing agency in each Reach. This assumption creates a substantial gap in analysis, ignoring potential impacts associated with rerouted trails, making the "less than significant" determination to IMPACT Rec-1 incomplete.

Temporarily rerouting access points and trails could expose unidentified areas of the shoreline to increased recreational usage in addition to the construction from surrounding project work. This could contribute to the physical deterioration of facilities and increased disturbance in sensitive areas. Identifying potential detours, even at a conceptual level, would allow the DEIR to evaluate impacts such as increased vehicle traffic in new neighborhoods, increased habitat exposure in new sensitive areas, and potential increased use of surrounding facilities.

In order to accurately assess this impact and assign a correct level of significance, the DEIR needs to take into consideration the potential worst-case impacts of temporary trail routes that may be established during construction."

Response CCCR-98

As indicated in Chapter 2, *Project Description*, no detour routing has been *proposed* at this time. It is not unusual for projects at this stage in development to lack transportation detour plans, which require a higher level of detail than what is currently available for the SAFER Bay Project (e.g., more precise implementation schedules for phases and reach segments, identification of all staging areas and vehicle routes, evaluation of detour options, trail closure mechanisms, and signage). Consequently, most EIRs require the development of traffic control plans—including for pedestrian and bicycle facilities—as a mitigation measure, and the SAFER Bay EIR follows this approach.

As described below, the EIR evaluates impacts on trails primarily under Impact TRA-1 in Section 3.16, Transportation, and Impact REC-1 in Section 3.16, Recreation.

Impact TRA-1 (beginning on page 3.15-7) evaluates the potential for the Project to conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Mitigation Measure TRA-1 (Draft EIR page 3.16-2) requires the SAFER Bay Project Team to develop traffic control plans that include (among other things) identification of full and partial closures of trails and bicycle and pedestrian detour plans where applicable. The SFCJPA disagrees with the assertion in the comment that the EIR "needs to take into consideration the potential worst-case impacts of temporary trail routes that may be established during construction" because doing so would involve speculating as to where such routes would be located. Any detour plans that are developed by the SAFER Bay Project Team would be required to meet requirements set forth in Mitigation Measure TRA-1. Traffic control plans developed pursuant to Mitigation Measure TRA-1 must be developed in coordination with the BCDC, the City of Redwood City (for reaches within that city), Midpeninsula Regional Open Space District (Midpen, for the North of Bay Road Reach), the California Department of Transportation, emergency service providers, and any other contractors constructing Project components (to ensure coordination across construction sites in the event there are multiple sites under construction concurrently).

Impact REC-1 (beginning on page 3.15-7) evaluates the potential for the Project to increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. This significance threshold is verbatim from Appendix G of the CEQA Guidelines. The determination of less than significant is based on the information presented in the section, including the duration of trail segment closures anticipated in the Project schedule, Project phasing, and the extent of existing recreational facilities serving the area, among other factors. No changes to the Draft EIR are warranted.

Comment CCCR-99

"While reviewing Chapter 3.17, we found a number of factual errors and omissions that, when corrected, will improve the reference value of its discussion. We provide corrected information and recommend the DEIR be changed to include it.

Page 3.17-2 Sanitary Services re West Bay Sanitary District The DEIR correctly describes the wastewater services that are provided by the WBSD. However, and important for planning purposes for the Project, the WBSD also provides recycled water services, currently at the Sharon Heights Golf Course and has an approved project in progress to build a Recycled Water Facility at its property adjoining Bedwell Bayfront Park. It has Marsh Road Reach easements for access and for buried pipelines (current and approved/planned). It also owns the parcel of land that includes the SVCW facility pump house. WBSD was not been mentioned among agencies having jurisdiction in the Marsh Road Reach footprint but should be.

Page 3-17-3 re the East Palo Alto Sanitary District Effective 10/1/24 and per a decision of San Mateo County LAFCO, the EPASD became a subsidiary district of the City of East Palo Alto. The East Palo Alto City Council serves as the governing board.

Page 3.17-6: Police Services re Palo Alto Police Department As we have discussed previously in this letter, the Faber-Laumeister Unit is managed and operated by the USFWS/Refuge by Cooperative

Agreement with the City of Palo Alto. For emergency police service, the Refuge maintains a relationship with the East Palo Alto Police Department. Similarly it has a relationship with the Menlo Park Fire Protection Services.

Page 3.17-7 re Parks and Recreational Facilities The discussion in this section states: ""The City of Palo Alto owns and operates the Baylands Nature Preserve, which includes the Laumeister and Faber marshes in East Palo Alto." As discussed previously in our letter, the Don Edwards San Francisco Bay National Wildlife Refuge, by Cooperative Agreement with Palo Alto, operates the Faber-Laumeister Unit under its Federal Comprehensive Conservation Plan. (See Joint Letter Exhibit D.)

Page 3.17-8 re Regulatory/Federal The discussion states: "No federal laws or requirements for utilities, service systems, and public services are applicable to the Project." Noting the comment just above Federal law and authority apply to any activity in the Faber-Laumeister Unit inclusive of any use of the land as utility infrastructure. Should the Project need access to the land, it will need to apply to the Refuge for a USFWS Compatibility Use Permit."

Response CCCR-99

Text on Draft EIR pages 3.17-2, 3.17-3, 3.17-6, 3.17-7, and 3.17-8 have been revised to address Comment CCCR-99. Refer to Chapter 4 of this document, *Draft EIR Revisions*. This comment does not address the adequacy of the environmental analysis, and it does not identify or raise any significant environmental issues related to the Draft EIR under CEQA (CEQA Guidelines section 15088). The Draft EIR (e.g., Table 2-11 in Chapter 2, *Project Description*) acknowledges that Project implementation requires authorizations from the U.S. Fish and Wildlife Service.

Comment CCCR-100

"**Aesthetic Resources Impact AES-1** (Substantially degrade the existing visual character or quality of public view of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality) appropriately states that impacts are *Significant and Unavoidable Despite Mitigation.* The impacts are due to the height of the levee/floodwall blocking the beautiful views of the Bay and marshes from neighborhoods and motorists. The proposed mitigation includes native plantings on the upland side of the levee and surface treatments on the steel and concrete walls; the DEIR appropriately acknowledges that these measures will not fully mitigate the impacts.

a. A mitigation measure that appears not to have been considered is a phased approach to building the hybrid floodwall levees: construct the earthen levee up to the FEMA height initially and at a later date, raise the levee an additional 3.5 feet (by installing the steel floodwall and concrete cap for example). The BCDC RSAP[48] (p. 37) states that it is appropriate to "develop adaptation strategies in phases" and it "may not be appropriate to build adaptation strategies for the longest-term sea level projections today". This DEIR (p 4-35 for one) recognizes that the steel sheet piles have a limited lifespan due to corrosion. Steel sheet piles in a marine environment can have a typical lifespan on the order of 60-70 years, so the steel installed in 2030 may be corroded by 2100 (when it will finally be utilized due to sea level rise) and could require replacement. If the steel sheet pile wall is not delayed, it may be in poor condition at the time it is finally needed, wasting project dollars. Consider this phased/adaptive approach in the EIR to reduce the aesthetic impacts of such a high levee/wall."

[Comment Footnote:

(48) Regional Shoreline Adaptation Plan: One Bay Vision, Strategic Regional Priorities, and Subregional Shoreline Adaptation Plan Guidelines]

Response CCCR-100

Public viewing opportunities toward Faber Marsh and the East Bay Hills (e.g., from Beech, Cypress, and Garden streets in East Palo Alto, South of Bay Road Reach) and toward Ponds R1, R2, R3, SF2, and Ravenswood Slough (Dumbarton Approach, Substation and Marsh Restoration, Tech Campus, and Bayfront Expressway reaches) would be interrupted by proposed shoreline protection and recreational features (refer to Draft EIR Figures 3.2-5 and 3.2-6 in Section 3.2). Implementation of Mitigation Measure AES-1 would reduce visual contrast for the affected views but would not eliminate view obstruction; consequently, this impact would be significant and unavoidable. During alternatives screening, the strategy of reducing the height of the levee to avoid or reduce aesthetic impacts was considered (Draft EIR page 4-10):

> "Regarding significant and unavoidable aesthetic impacts, the interruption of public views of the bay and the East Bay Hills (e.g., looking east at the end of Cypress Street in East Palo Alto) is associated with construction of shoreline protection and recreational features. As indicated in Chapter 2, *Project Description*, 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. Reducing the height of shoreline protection would be counter to the purpose of the Project and its objective to reduce the risk of flooding from San Francisco Bay waters, including consideration of up to 3.5 feet of future sea level rise, and the communities' objective to be removed from the Federal Emergency Management Agency (FEMA) floodplain. Consequently, the strategy of reducing the height of shoreline protection was eliminated from further consideration."

Constructing earthen levees up to the current FEMA coastal flood protection requirements (i.e., the existing 100-year flood event with required freeboard for FEMA accreditation) initially and later raising the levee an additional 3.5 feet would incrementally lessen the severity of visual impacts in the near term but would not eliminate the significant and unavoidable impact in the long term. The levee/floodwall hybrid approach proposed for three of the reaches associated with the significant and unavoidable impacts to aesthetic resources is not designed for subsequent augmentation, nor do Project engineers consider retrofitting levees with steel floodwalls after initial construction (as suggested in the comment) to be feasible. While earthen levees, with proper annual maintenance and augmented with additional material as needed, are more adaptive to climate change and can persist without need of wholesale replacement, the levee/floodwall hybrid approach is proposed in specific locations to reduce impacts to sensitive marsh habitat.

Regarding the Regional Shoreline Adaptation Plan (RSAP), as described in **Response CCCR-123**, the Project is consistent with the RSAP framework's emphasis on alignment of elevation, sequencing, and timing across jurisdictions to avoid fragmented actions that can create discontinuous protection and shift flood risk to neighboring areas.

Regarding the design life of the proposed sheet piles, they will be installed below grade and remain embedded in subsurface soils characterized by low oxygen availability (anaerobic conditions). Under

these conditions, the rate of steel corrosion is substantially reduced compared to environments where oxygen is readily available. Steel corrosion is primarily driven by oxidation, which requires the presence of oxygen. Once sheet piles are installed below the groundwater table and surrounded by saturated soils, oxygen diffusion is minimal, substantially slowing the electrochemical corrosion process. As a result, sheet piles placed in anaerobic subsurface environments typically exhibit very low corrosion rates, allowing the structural elements to perform as intended for extended periods, often exceeding the design life of the Project. In addition, sheet pile sections are designed with conservative thickness allowances that account for potential long-term material loss. This design approach further ensures that structural performance and stability are maintained over time, even under worst-case assumptions. Based on the below-grade placement, anaerobic soil conditions, and conservative engineering design, the proposed sheet piles are anticipated to have a long service life. Nonetheless, earthen levees are inherently more adaptive to climate change.

Comment CCCR-101

"**Biological Resources Impact BIO-2** says the project will have a less than significant impact on federally protected wetlands with a mitigation of a Habitat Restoration Monitoring Plan. The discussion of wetland impacts in Section 3.4 describes the permanent impacts to the wetlands from the flood control infrastructure and states that those are offset by the uplift to the former salt pond restorations. Table 3.4-5 presents acreage of impacts to wetlands for project elements. Impacts to wetlands appear significant, particularly considering that feasible alternatives exist with fewer wetland impacts and that former salt marshes are being impounded behind levees.

a. Calculations of impacts from flood infrastructure for the Substation Reach in Table BIO4-5 show 20.63 acres of permanent impacts from fill over wetlands. This only accounts for the footprint of the levee, and does not account for the wetland areas that will be impounded behind the levee. I estimate 11 acres of potential tidal wetland habitat upland of the new levee that will be lost.
    i. For all calculations of impacts to wetlands, account for all former salt pond areas that will be impounded upland of levees and permanently lose the potential for restoration into salt marshes."

Response CCCR-101

The referenced 11 acres of potential tidal wetland habitat landward of the new levee were not counted as permanent impacts because this area is currently detached from tidal action and will remain diked wetland habitat. Consistent with CEQA (sections 15125[a][1], 15126.2[a], et seq.), the Project's impacts, including impacts on waters of the United States and state (e.g., San Francisco Bay) are determined by comparing with-Project conditions to the existing physical environment. Therefore, loss of potential future restoration to salt marsh habitat were not quantified. Regarding consideration of alternatives to reduce impacts on wetlands, refer to Draft EIR Chapter 4, *Alternatives.*

Although it is infeasible to construct the levee closer to the PG&E Ravenswood Substation due to the proximity of numerous transmission towers (shown on Draft EIR Figure 2-17) as well as power supply equipment near the perimeter of the PG&E property and the height of the transmission lines between the towers and the substation, as discussed in Section 1.4 of this document, the SAFER Bay Project Team is proposing to adopt select features of the Modified Footprint Alternative, including a floodwall along the southern boundary of the PG&E Ravenswood Substation.

Comment CCCR-102

"b. Alternatives to a large earthen levee with a trail on top should be considered in areas with many acres of wetlands impacts such as the Substation Reach. One example is a steel sheet pile wall with a lower trail on the Bay side. This design is being used on a portion of the proposed sea wall at the San Francisco Airport (SFO). At the Substation Reach, different wall types could be used in different areas. On the east and west sides of the site where wave energy is lower and there are numerous electrical towers, steel sheet pile walls could be placed on the edge of the PG&E property with an earthen wall on the north side.
   i. Consider additional alignments that minimize impacts to wetlands.
   ii. Negotiate easements on the edges of PG&E property for the flood wall or levee. PG&E's benefits from the project could be contingent on them contributing easements."

Response CCCR-102

As part of the Project, the levee/floodwall hybrid design was incorporated into the current design for areas with many acres of impacts on wetlands to reduce impacts, including South of Bay Road, North of Bay Road, and parts of the Substation and Marsh Restoration Reach. Floodwalls along the edge of high-value habitats, particularly tidal marsh, were considered undesirable because they provide no transition zone habitat.

Several different alternatives with modified designs that reduce impacts on wetlands and associated special-status species were considered, as described in Draft EIR Chapter 4. The candidate alternatives considered modifying the levee footprint, more extensive use of floodwalls, and shifting the levee landward to reduce impacts on wetlands and special-status species. Although the Substation and Marsh Restoration Reach deliberately includes a broader, 10:1 sloped transition zone to provide upland refugia based on discussions with the South Bay Salt Ponds Restoration Project, the Modified Footprint Alternative incorporates a 3:1 transition zone for that reach specifically to reduce adverse impacts on wetlands and special-status species.

Regarding the apparent request to place shoreline protection on PG&E property, some of the levee is already on PG&E property. However, the presence of transmission lines between the transmission towers and the substation, as well as power supply equipment near the perimeter of the PG&E property, constrain proximity of shoreline protection to the substation.

Comment CCCR-103

"c. Based on Figure 2-20, it appears the alignment of the Tech Campus Reach hybrid levee could be moved upland, preventing impacts to existing wetlands, however the EIR states (p. 4-39) that "This alternative was eliminated from further consideration due to the inability of the SFCJPA to reasonably acquire, control, or have access to the site." Has SFCJPA attempted to negotiate easements with Meta in exchange for the flood control benefits of the project? The OneShoreline Millbrae-Burlingame Project has gone through many alternatives and ended up with Alternatives A and B which minimize Bay fill and are on the shoreline on private property, so having a similar alignment should be feasible for SAFER as well.
   i. Negotiate easements on Meta property for the levee to minimize impacts to wetland habitat and other impacts to public lands.
   ii. A salt marsh pond on the east side of the property, approximately 6 acres in size, would be impounded by the levee and require the construction of a pump station for a

stormwater outfall. Consider realigning the floodwall around the pond and along the highway, so it can stay a salt marsh and potentially no pump station would be required.

iii. If a new pump station is unavoidable, provide details on the layout and impacts of this station."

Response CCCR-103

As discussed on Draft EIR page 4-39, the extent to which the levee could be moved into the Meta Headquarters while protecting existing structures is limited and the Modified Footprint Alternative would more clearly reduce habitat impacts compared to this candidate alternative. Refer to **Response CCCR-36** for additional discussion of reducing impacts on marsh in Ravenswood Slough. Items ii and iii in this comment are addressed in **Response CCCR-39.** The alignment reflects discussions between the SAFER Bay Project Team and Meta.

Regarding the commenter's recommendation that the shoreline protection be realigned around Ravenswood Slough between SR 84 and the Meta property, the SAFER Bay Project Team is proposing to adopt select features of the Modified Footprint Alternative including the floodwall in between SR 84 and the Meta property (refer to Section 1.4 of this document).

Comment CCCR-104

"d. The habitat benefits of the levee transition zones may be overstated since they assume the marshes will accrete (rise up) with sea level rise. If the marshes do not accrete naturally, they will turn into open water with sea level rise and the investment in an earthen levee, with the associated destruction of habitat under the levee, will be for naught. If sediment addition is planned, then a shoreline transition zone may not be needed at this time (and could be created by the sediment addition). A recent study by the USGS[(49)] modeled the sea level rise vulnerability of 8 South Bay marshes and estimated that around 2040 the marshes may start transitioning from pickleweed to cordgrass with some marshes dropping below mean sea level (MSL) around 2080.

i. Discuss the sea level rise vulnerability of the marshes fronting the levees in the project, estimate the year when marshes will transition to open Bay and use this to discuss the limits on the functionality of the levee transition zone. For sheet pile/earthen hybrid levees, consider reducing the height (and width) of the levee on the Bay side of the sheet pile to reflect this analysis."

[Comment Footnote:

[(49)] Modeling sea-level rise vulnerability for tidal wetlands of south San Francisco Bay]

Response CCCR-104

Modeling predicts that up to 480 acres of tidal marsh may establish in the restored Pond R1 and R2 and that this amount of marsh will be sustained through 2100. Plausible scenarios within the spectrum of existing sea level rise projections, suspended sediment supply, and marsh response result in differing results in the model prepared for the Project versus the U.S. Geological Survey modeling cited in the comment. These differences in model predictions are far enough in the future so as to not affect the design of the Project, as both predict that at least several decades of tidal marsh are likely. Appendix A of the SAFER Bay Habitat Restoration Basis of Design Report, included as Draft EIR Appendix BIO3, includes this analysis of sea level rise vulnerability of the marshes within the Project area, as well as the

marshes proposed for restoration in Pond R1 and Pond R2. The Habitat BOD was included in the Draft EIR, but Appendix A of the BOD was inadvertently omitted. The entire Habitat BOD is included in this document as Appendix BIO3-REV.

Additionally, we note that the only portion of the Project area where a wider levee has been incorporated for the purposes of accommodating salt marsh-upland transition zone is within Pond R2, where no existing tidal marsh habitat is present. Hence, the land that would be covered by the transition zone fill is low-quality mudflat within a former salt production pond. Even if accretion does not enable long-term sustainability of the marsh, the elevations of the planned levee transition zone will allow for larger band of tidal marsh establishment along the outboard side of the transition zone's 10:1 slope than if a traditional, steeper-faced levee was built. The transition zone also provides higher elevations for tidal marsh to transgress landward with sea level rise, enabling a portion of the ponds to sustain tidal marsh even if the lower elevations in the pond interiors cannot support marsh for as long.

The remainder of the Project was designed to minimize impacts on existing tidal marsh habitat.

Comment CCCR-105

"e. Note that the SF Bay Plan's Tidal Marshes and Tidal Flats policies 1 and 2 state that:
   i. Tidal marshes and tidal flats should be conserved to the fullest possible extent. Filling, diking, and dredging projects that would substantially harm tidal marshes or tidal flats should be allowed only for purposes that provide substantial public benefits and only if there is **no feasible alternative**.
   ii. Any proposed filling, diking, or dredging project should be thoroughly evaluated to determine the effect of the project on tidal marshes and tidal flats, and **designed to minimize, and if feasible, avoid any harmful effects**."

Response CCCR-105

This comment has been acknowledged. Refer to **Response BCDC-2**.

Comment CCCR-106

"**Biological Resources Impact BIO-4** says the project will have a less than significant impact on fish. Existing and proposed infrastructure for moving Bay water into and out of the Pond SF2 for WSP habitat is described starting on page 2-10. There are existing culverts and weirs owned by USFWS and a new pump station proposed between cells U1 and U2 to manage water in the new western snowy plover (WSP) habitat. This water management infrastructure and any other proposed for the project could have impacts to fish, particularly longfin smelt and white surgeon who prefer the cool, less brackish shorelines of the Bay. If Bay water is proposed to be pumped into ponds, the impacts are not discussed in the DEIR.

a. Conduct a study of each piece of individual new and repurposed water management infrastructure (including those listed in Table 3.11-6) for potential impacts to special status aquatic life and provide mitigation, such as fish screens, if appropriate. Fish screens should be required for any intakes of Bay water due the potential adverse impacts to longfin smelt and white sturgeon."

Response CCCR-106

As indicated on Draft EIR page 3.4-33, "operation and maintenance activities, including operation of pumps, flood gates, and interior drainage systems could result in incidental intake of fish into pumps or stranding in ponds when water levels have been drawn down." A pump will be required to manage water levels in reconfigured Pond SF2. The pump station will be located at the southeast corner of Pond SF2 on the levee between the remnant cell U4 and reconfigured area of cell U4 (Figure 11, Appendix BIO3). Mitigation Measure BIO-11 (Draft EIR page 3.4-37) requires that a fish screen be installed on pumps to prevent fish from being pumped into managed ponds during operations intended to support targeted water level management. Although design of the pump station is not yet complete, the Project will require approvals from USFWS and National Oceanic and Atmospheric Administration, National Marine Fisheries Service (Draft EIR Table 2-11). The National Marine Fisheries Service publishes fish screening criteria for protected species and would instruct Project design engineers regarding the appropriate screen design through consultation pursuant to Section 7 of the federal Endangered Species Act. Changes to the EIR are not necessary.

Comment CCCR-107

> "**Hydrology and Water Quality Impact HYD-3** Table S-2 says the project will have a less than significant impact on the existing drainage patterns of the site or area with mitigation, and one mitigation is provided for East Palo Alto: a new Runnymede Pump Station. **Utilities, Service Systems, and Public Services, Impact USP-1** says the project would have less than significant impact. However, the EIR does state that (without additional development) the project would add runoff to the existing storm drain system, potentially making flooding worse (p. 3-11.47) and therefore this is a potentially significant impact on drainage utilities. The DEIR states that the project will not cause shallower groundwater levels (page 3.11-49) however, no quantitative analysis is provided to substantiate this claim."

Response CCCR-107

Draft EIR Section 3.17, Utilities, Service Systems, and Public Services, lists the significance criteria applied related to utilities on page 3.17-13. As stated there, among other criteria, the Project could have a significant impact if it were to require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. The commenter correctly states that the Project would add runoff to the existing storm drain system, potentially worsening flooding. Impacts related to flooding are addressed in Draft EIR Section 3.11, Hydrology and Water Quality, as noted by the commenter. The potential impacts of constructing the Project or constructing additional utility infrastructure required as mitigation for Project impacts are discussed in the relevant topics of the Draft EIR (for example, Mitigation Measure HYD-2a requires installation of a pump station, stormwater detention storage, or other conveyance, which could have environmental impacts as discussed on Draft EIR page 3.11-48).

Regarding effects on shallow groundwater levels please refer to **Response BCDC-30**.

Comment CCCR-108

> "a. Section 3.11 (p. 3-11-42) and Table 3.11-6 state that the project will eliminate 4 stormwater outfalls north of Bay Road and add drainage area to the East Palo Alto storm drainage system

and the O'Connor Pump Station, the main storm water pump station in East Palo Alto. The O'Connor Pump station is in the south end of the City, where groundwater levels are shallowest (per Figure 3.11-2). The Runnymede outfall on the north side of East Palo Alto is being replaced in the project with a new storm water pump station. Why is an upgraded O'Connor Pump station not included in the project when the impacts are primarily in that part of town? It appears no mitigation is provided for these impacts since the project proponent stated any other mitigations were already described in the 2014 City of East Palo Alto Stormwater Master Plan and so they are "planned" projects. However, the 2014 Stormwater Master Plan did not anticipate this levee project and the drainage impacts from this project could be substantial, particularly if the proposed Runnymede pump station doesn't adequately replace the carrying capacity of the 4 eliminated outfalls.

i. Provide a quantitative analysis of the proposed project on the drainage system to quantify the contribution of the project to the drainage impacts, so the project can contribute a proportional amount to the O'Connor Pump station Upgrade project.
ii. Provide quantitative analysis showing the Runnymede and O'Connor pump stations will adequately address drainage in East Palo Alto with the project in place."

Response CCCR-108

Comment CCCR-108 asks why an upgraded O'Connor Pump Station is not included in the Project and requests a quantitative analysis of the Project effects on the drainage system. The commenter also requests a quantitative analysis showing the Runnymede and O'Connor pump stations would adequately address drainage in East Palo Alto with the Project in place.

As discussed in Draft EIR Impact HYD-3, in 2024, East Palo Alto completed the 2024 Utility Impact Study[38] which included a quantitative analysis of development that would eliminate the four eastern gravity outfalls north of Bay Road, which is functionally equivalent to the effects of the Project north of Bay Road. The results of the 2024 quantitative analysis are reported on Draft EIR page 3.11-47, and state that combined with eliminating the outfalls, directing runoff from areas west of the proposed shoreline protection alignment to the existing stormwater drainage system effectively adds approximately 133 acres to the drainage area of the Runnymede Street outfall and the O'Connor Pump Station. The Draft EIR analysis states on page 3.11-47 that the existing stormwater drainage system does not have capacity to convey runoff from the 10-year storm, or larger storm events. Therefore, assuming no other development occurs north of Bay Road prior to levee construction,[39] the Project would eliminate the outfalls and therefore generate runoff that would exceed the capacity of the existing stormwater drainage system and could worsen flooding. The waterfront development scenario modeled in the 2024 Utility Impact Study shows that water levels increase by more than 0.5 foot along Bay Road, Runnymede Street, and areas south along the Runnymede-O'Connor drainage channel. As discussed in Draft EIR Impact HYD-3, the Runnymede Pump Station is included in the specific plan for the Ravenswood Business District to address the elimination of the eastern gravity outfalls north of Bay Road. The 2024 Utility Impact Study identified additional changes to the stormwater drainage system that would be needed to avoid worsening

[38] Schaaf & Wheeler Consulting Civil Engineers, Ravenswood Business District Specific Plan Update Utility Impact Study, prepared for Raimi & Associates and City of East Palo Alto, revised June 20, 2024. The Ravenswood Business District/4 Corners Specific Plan was adopted on December 17, 2024.

[39] The East Palo Alto Waterfront Project, a mixed-use development in the Ravenswood Business District, is proposed north of Bay Road and could be completed prior to construction of the Project. However, the Draft EIR impact analysis conservatively considers the potential impacts of the proposed levee if it proceeds prior to other development north of Bay Road.

flooding, consisting of either upsizing infrastructure built in Bay Road/Pulgas Avenue in 2018 or adding a new pump station at the eastern end of Runnymede Street. However, the 2024 Utility Impact Study states that adding a pump station at the end of Runnymede Street, discharging to San Francisco Bay, is more effective at avoiding flooding than relying on O'Connor Pump Station for drainage, and that a new Runnymede Pump Station could eliminate the need for other capital improvements. The 2024 Utility Impact Study also notes that a new Runnymede Pump Station could provide some redundancy should O'Connor Pump Station fail or require maintenance. The Specific Plan includes a new Runnymede Pump Station among the required storm drainage capital improvements for the plan area.

The 2024 Utility Impact Study notes that a new Runnymede Pump Station reduces flooding throughout the East Palo Alto storm drain system and "can mitigate for any developments connecting to systems draining to Runnymede and O'Connor."[40] In order to conclude that Project impacts would be less than significant with mitigation, the Draft EIR must demonstrate that Mitigation Measure HYD-2a avoids impacts caused by the Project. This standard differs from the commenter's request that the Draft EIR demonstrate that "the Runnymede and O'Connor pump stations will adequately address drainage in East Palo Alto with the Project in place." Based on the 2024 Utility Impact Study conclusions, the Draft EIR concluded that Mitigation Measure HYD-2a would be effective in reducing the Project's impacts on flooding to be less than significant with mitigation.

Comment CCCR-109

"b. Although the South of Bay Road Reach is analyzed at the project level in this DEIR, there are no drawings of a possible Runnymede Stormwater pump station, what new pipelines would be required, or where the outfall would be located, and no analysis of the impacts of these details. Mitigation Measure HYD-2a states that the pump station would be located "in the South of Bay Road Reach levee" however this is not a realistic location as it would compromise the levee stability and be at a distance from the stormwater system.
   i. Provide drawings of the likely layout of the Runnymede Pump station and all associated infrastructure."

Response CCCR-109

As indicated in the Draft EIR (e.g., page 2-4, page 3.1-3), the *Project Description* (Draft EIR Chapter 2) reflects the design detail currently available for stormwater improvements and provides the basis for the evaluations presented in Draft EIR Chapter 3, Environmental Setting, Impacts, and Mitigation Measures. Comment CCCR-109 requests drawings of the likely layout of the Runnymede Pump Station and all associated infrastructure. The comment states that a pump station in the South of Bay Road Reach levee would compromise levee stability and would be at a distance from the stormwater system. As shown in Mitigation Measure HYD-2a (revised as shown in Chapter 4 of this document), incorporating a pump station in the levee design is one option outlined in the mitigation measure. Mitigation Measure HYD-2a also identifies an option to add facilities to temporarily store stormwater and/or convey the discharge from the pump station over the levee. In either case, the Draft EIR evaluates the impacts of Mitigation Measure HYD-2a on Draft EIR page 3.11-48.

[40] 2024 Utility Impact Study page 6-5.

As discussed in greater detail in **Response Nuestra Casa-10**, CEQA requires an EIR to describe feasible measures that could minimize significant adverse impacts of the project. CEQA Guidelines section 15126.4(a)(1)(B) explains that the specific details of a mitigation measure may be developed after project approval when it is impractical or infeasible to specify those details during the EIR review process, provided the lead agency commits to implement the mitigation, adopts specific performance standards the mitigation will achieve, and identifies the types of actions that may be implemented to achieve compliance with the performance standard. Mitigation Measure HYD-2a complies with these guidelines.

Comment CCCR-110

> "c. There is known shallow groundwater contamination in East Palo Alto. The addition of pumping systems to lower groundwater tables and improve stormwater drainage could bring contaminated groundwater into the stormwater system through leaky pipes, to a greater extent than gravity discharge would. If the new pump station discharge is to the Bay, provide storm water quality data and/or groundwater data confirming it will be clean enough to discharge over the levee. Otherwise provide provisions to treat the water prior to discharge. SFO has acknowledged[(50)] their storm drain system draws in shallow groundwater (and is helpful in lowering shallow groundwater levels) and contaminants and consequently they treat their contaminated stormwater onsite."

[Comment Footnote:

[(50)] From BCDC Engineering Criteria Review Board meetings on the SFO-Shoreline Protection Project in 2024.]

Response CCCR-110

The Project includes infrastructure upgrades listed in Draft EIR Chapter 2, *Project Description*, and Appendix INFRA, which would be included to avoid worsening flooding inland of the levee. Unlike the ongoing groundwater pumping operations as part of groundwater remediation at multiple adjacent sites (discussed in the Draft EIR Section 3.10, Hazards and Hazardous Materials, and 3.11, Hydrology and Water Quality), which occurs regardless of weather conditions, Project pump stations would primarily operate during and after flood events. The rate at which groundwater would flow into existing stormwater pipelines is substantially smaller than the conveyance capacity of the existing pump stations or stormwater pipelines.

Comments CCCR-110 and Nuestra Casa-8 recommend the EIR include information demonstrating that discharges via modified or new drainage infrastructure would be clean enough to discharge to San Francisco Bay. As discussed in Draft EIR Section 3.11, Hydrology and Water Quality, (p. 3.11-19) the San Francisco Bay Region MRP requires permittees, including San Mateo County, Santa Clara County, and cities within these counties, to effectively prohibit the discharge of non-stormwater to storm drain systems and watercourses. MRP Section C.2.d applies to stormwater pump stations operated by permittees to eliminate non-stormwater discharges containing pollutants, and to reduce pollutant loads in stormwater discharges to comply with water quality standards in the Basin Plan. MRP Section C.2.d.ii(2) requires the investigation and abatement of illicit discharges from stormwater pump stations. New and existing pump stations included in the Project would be required to comply with the MRP.

Comment CCCR-110 states that the San Francisco International Airport's storm drain system draws in shallow groundwater and that San Francisco International Airport treats contaminated stormwater onsite.

Unlike the Project and adjacent contaminated sites, the airport is a large connected impervious area, and operation of the airport includes ongoing storage and use of large volumes of water quality contaminants such as jet fuel, de-icing fluid metals and per- and polyfluoroalkyl substances. The airport is an industrial facility that has its own treatment plant that operates under a NPDES permit with three separate collections systems for sanitary, industrial, and stormwater discharges. Shallow groundwater enters the industrial treatment system during first flush stormwater via infiltration, during dewatering operations for construction projects and, most recently, to meet recycled water use goals for non-potable uses. The plant does not exist to treat contaminated groundwater beneath the facility.

There are both closed and active remediation sites within the SAFER Bay Project area. Active sites must be cleaned up by the site owners and must incorporate sea level rise into remediation plans. For closed or capped contaminated sites, the DTSC and the RWQCBs are addressing the risks posed by sea level rise by prioritizing sites, requiring vulnerability assessments, and leveraging "five-year reviews" to ensure ongoing safety.

Comment CCCR-111

> "d. The project will construct a deep steel sheet pile wall a little over 1 mile long on the east side of East Palo Alto along the South of Bay Road Reach. Recent studies(51) as well as the BCDC RSAP (page 32) highlight the potential for subsurface barriers, such as the sheet pile walls, to create groundwater emergence hazards. Groundwater emergence is a hazard due to the inundation of storm drains by groundwater, reducing or eliminating storm drain capacity and causing flooding during storms. Groundwater is currently within 3 feet of the ground surface in shoreline areas of East Palo Alto (p. 3.11-49) and groundwater emergence in East Palo Alto is expected to worsen with time due to sea level rise. In East Palo Alto, where there are currently groundwater emergence hazards in the form of stormy weather flooding in low-lying areas(52), the deep sheet pile walls could make the winter/high tide flooding even worse. The DEIR describes the shallow groundwater as being unconfined and flowing to the east towards SF Bay. Shallow groundwater quality is poor and there is reportedly substantial groundwater contamination in East Palo Alto. The stormwater pump stations' performance could also be enhanced by the steel sheet pile wall, but their radius of influence is unassessed."

[Comment Footnotes:

(51) Su, X., Befus, K.M. & Hummel, M.A. Shoreline barriers may amplify coastal groundwater hazards with sea-level rise. Sci Rep 14, 15559 (2024). https://doi.org/10.1038/s41598-024-66273-w

(52) SPUR, Nuestra Casa, and Pathways Climate Institute, "Look Out Below: Groundwater Rise Impacts on East Palo Alto - A Case Study for Equitable Adaptation", May 2024. SPUR_Look_Out_Below.pdf]

Response CCCR-111

Please refer to **Responses BCDC-30** and **CCCR-110**. The commenter states that groundwater emergence hazards are present in East Palo Alto in the form of stormy weather flooding in low-lying areas. If groundwater emergence occurs and causes flooding during the dry season, such flooding could be a groundwater emergence hazard; however, stormy weather flooding is most likely caused by increased

precipitation and inadequacies in existing the existing storm drain system,[41] and not due to groundwater emergence.

Comment CCCR-112

"i. Provide a hydrologic analysis of the potential for the steel sheet pile walls to exacerbate groundwater emergence hazards, in the present and in the future with additional sea level rise for the life of the project (out to 2100). Provide mitigation for any flooding hazards made worse by the confining effect of the subsurface barrier created by the sheet pile walls or revise the design to remove the subsurface barrier."

Response CCCR-112

Please refer to **Response BCDC-30**.

Comment CCCR-113

"ii. Assess if any increased risk of groundwater emergence caused by the sheet pile walls could mobilize contaminants into the local drainage systems or to the surface."

Response CCCR-113

Comments CCCR-113 and Nuestra Casa-3 request that the EIR assess if any increased risk of groundwater emergence caused by the sheet pile walls could mobilize contaminants into the local drainage systems or to the surface. As discussed in Response BCDC-30, the sheet pile walls are present along approximately 35 percent of the levee alignment (South of Bay Road, Dumbarton Approach, and Tech Campus reaches) and are not expected to substantially increase the risk of groundwater emergence. Refer also to **Responses BCDC-30** and **CCCR-110**.

Comment CCCR-114

"iii. Consider a long term groundwater monitoring program to better understand this potential effect."

Response CCCR-114

Comments CCCR-114 and Nuestra Casa-3 recommend consideration of a long-term groundwater monitoring program to assess the potential for groundwater emergence caused by the Project's shoreline protection. For the reasons discussed in **Response BCDC-30**, the Project is not expected to substantially alter groundwater flow. In addition, as discussed in Draft EIR Impacts HYD-1 and HAZ-3, contaminated sites in the Project vicinity are already undergoing long-term groundwater monitoring until the contamination reaches the specified cleanup levels for each site. Nonetheless, the SAFER Bay Project Team may review existing groundwater monitoring networks in San Mateo County and consider supplementing that network (to be determined in the future). Refer also to Responses **BCDC-30** and **CCCR-110**.

[41] Page 1-3 et seq. in Schaaf & Wheeler, *Storm Drain Master Plan*, January 2014.

Comment CCCR-115

"e. Provide a hydrologic study examining the capacity of East Palo Alto's O'Connor storm water pump station to handle the additional drainage from the closing of the 4 gravity outfalls (coincident with impacts from the subsurface barriers). Mitigate any additional demands on the O'Connor pump station."

Response CCCR-115

Please refer to **Response CCCR-108**. Draft EIR Impact HYD-3 uses information from the 2024 Utility Impact Study for the Ravenswood Business District Specific Plan to describe the drainage area added to the Runnymede-O'Connor drainage basin and identifies mitigation (Mitigation Measure HYD-2a) to avoid increasing flooding in East Palo Alto.

Comment CCCR-116

"f. Analyze the need for and include anticipated interior drainage as required by FEMA. FEMA accreditation of floodwalls requires addressing interior drainage[53], typically done through the installation of french drains with pumps on the upland side of the wall that discharge over the wall to the Bay. If FEMA is going to require these drainage systems, include their design and potential impacts in this EIR, otherwise the CEQA compliance is "piecemealing"."

[Comment Footnote:

[53] FEMA, FEMA Fact Sheet: Meeting the Criteria for Accrediting Levee Systems on Flood Insurance Rate Maps, May 2021.]

Response CCCR-116

The Draft EIR includes drainage improvements that are proposed as part of the Project and evaluates the potential impacts of the drainage improvements. The commenter is referred to Draft EIR Chapter 2, *Project Description*, and Appendix INFRA. Draft EIR Impact HYD-3 identifies additional drainage improvements that would be required to avoid worsening flooding and includes an impact evaluation of the additional drainage improvements.

Comment CCCR-117

"**Impact LU-1** states that the project will have a less than significant impact due to a conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The SF Bay Plan[54], which sets the policies of the SF BCDC, includes the Water Surface Area and Volume Policy 1, which states: "The surface area of the Bay and the total volume of water should be kept as large as possible in order to maximize active oxygen interchange, vigorous circulation, and effective tidal action. Filling and diking that reduce surface area and water volume should therefore be allowed only for purposes providing substantial public benefits and only if there is no reasonable alternative." Ponds U2 and U3 of SF2 and the undeveloped land just to the south (approximately 280 acres); the mitigation lands bounded by University Ave, Bayfront Expwy and Willow Rd (approximately 77 acres); and ponds R5 and S5 (approximately 67 acres) are all parcels that without the project, would be expected to become an extension of the Bay with sea level rise. Portions of these areas are currently part of the Bay. The alignment of the levees in the project will prevent these areas from becoming inundated and as a result will decrease the potential surface area and volume of the Bay, in violation of the Bay Plan. Alternatives are clearly feasible. A potential impact of not complying with this policy includes accelerating sea level rise throughout the South

Bay. In their 2025 publication[55], Nederhoff et al demonstrated the dampening effect on tides with the presence of tidal marshes fronting levees, particularly in the South Bay. In addition, locating coastal levees as far inland as possible will minimize the rate of tidal rise in the South Bay, as demonstrated by Hummel and Stacy.[56] Although the impact of tidal amplification from the project isolating 424 acres of potential tidal marsh behind a coastal levee may be small, on the order of centimeters or inches across the whole South Bay, it could equate to additional years when South Bay tidal marshes are not inundated. Note also that there will come a time when the Bay water level is so high that it will not be practicable to pump the water out of Ponds U2 and U3 for the WSP due to Bay water infiltrating into the ponds through and under the earthen levees."

[Comment Footnotes:

[54] San Francisco Bay Plan, March 2025.

[55] Nederhoff, K.; Saleh, R; Barnard, P. and M Stacy, "Mitigating Flood Risks in Urban Estuaries: Tidal Dynamics, Shoreline Hardening, Nature-Based Solutions, and Floodgates in San Francisco Bay" ASCE Journal of Waterway, Port, Coastal, and Ocean Engineering, Vol. 151, Issue 6, September 5, 2025. Mitigating Flood Risks in Urban Estuaries: Tidal Dynamics, Shoreline Hardening, Nature-Based Solutions, and Floodgates in San Francisco Bay | Journal of Waterway, Port, Coastal, and Ocean Engineering | Vol 151, No 6

[56] Hummel, M. A., & Stacey, M. T. (2021). Assessing the influence of shoreline adaptation on tidal hydrodynamics: The role of shoreline typologies. *Journal of Geophysical Research: Oceans*, *126*, e2020JC016705. https://doi.org/10.1029/2020JC016705]

Response CCCR-117

The comment asserts that without the Project and with sea level rise Ponds U2 and U3, the undeveloped land to the south, the lands bounded by University Avenue, Bayfront Expressway, and Willow Road and Ponds R5 and S5 would become an extension of the Bay, and that the Project would prevent these areas from becoming inundated in the future and thus decrease the potential surface area and volume of the Bay, in purported violation of a San Francisco Bay Plan policy.

The comment is correct that, if the Project were not built, daily tidal inundation with sea level rise (SLR) could eventually inundate the subject area depending upon the actual rate of SLR and the degree of maintenance of existing managed pond berms conducted by the Refuge. However, under current conditions the subject area is not part of the Bay. The commenter is proposing that impacts should be evaluated based on a future baseline. Consistent with CEQA (sections 15125(a)(1), 15126.2(a), et seq), the Project's impacts, including impacts to waters of the United States and state (e.g., San Francisco Bay) are determined by comparing with-Project conditions with the existing physical environment. As indicated in the comment, the areas identified in this comment are not part of the tidal habitats of the San Francisco Bay and therefore not part of the environmental baseline for impact evaluations to tidal habitats. The Draft EIR (beginning on page 3.4-67) identifies impacts to waters of the United States and state associated with implementation of the Project. The Draft EIR also includes an alternative (the Modified Footprint Alternative, described on Draft EIR p. 4-14) that addresses reducing impacts to waters of the United States and state. Lastly, inland alignment alternatives were also considered south of SR 84 and ultimately eliminated based on infeasibility, inability to meet most of the basic objectives of the Project, or inability to reduce the Project's significant impacts (refer to Draft EIR pages 4-4 through 4-11).

Regarding consistency with the policies of the San Francisco Bay Plan, the Draft EIR contains discussions of consistency with plans and policies, including the Bay Plan, pursuant to CEQA Guidelines

subsection (d) of section 15125, Environmental Setting. Policy conflicts do not, in and of themselves, indicate a significant environmental effect within the context of CEQA environmental review, in that the intent of CEQA is to determine physical effects associated with a project. As indicated in the Draft EIR (p. 3.1-3):

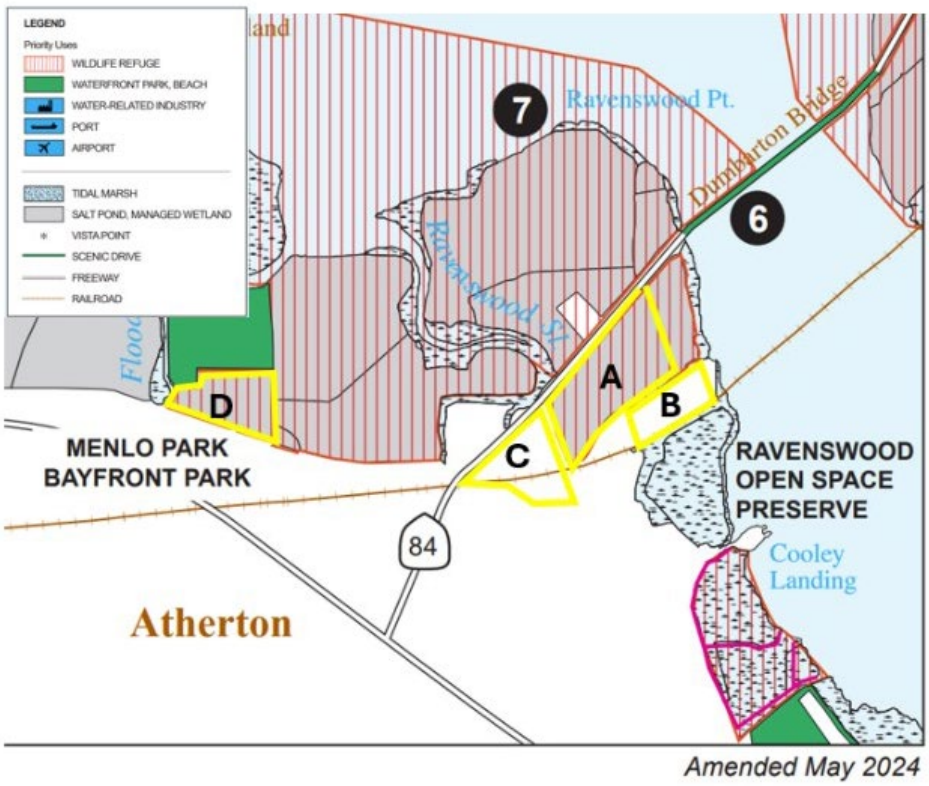
> "Land use plans typically contain numerous policies emphasizing differing legislative goals, and an interpretation of consistency requires a balanced understanding of relevant policies. The board, commission, or city council that adopted the plan determines the meaning of such policies and how individual projects satisfy those policies at the time it considers approval of a project. Whether the proposed Project is consistent with a plan would be determined at the time of Project approval by the agency charged with making that consistency determination. In each case, the approving or reviewing agency will consider any potential inconsistencies between the Project and adopted plans or policies in the context of applicable objectives and policies and will determine consistency based on a balancing of relevant policies as part of the approval process."

BCDC would determine consistency with Bay Plan policies. BCDC is a member of the BRRIT. As indicated in the Draft EIR (page 1-4), the SFCJPA has met with the BRRIT seven times beginning in March 2020, during which BCDC and other agencies have provided guidance for Project development regarding their respective authorities, jurisdictions, and planning documents.

The parcels mentioned in this comment are not currently considered part of the Bay according to BCDC Bay Plan[42] Map 7. In the figure below, these parcels have been delineated in yellow polygons on top of the Bay Plan Map 7 and labeled with black letters A, B, C, and D. Two of the areas, B, and C, are not within the bay or BCDC managed wetland jurisdiction. The other two areas, A and D, are mapped as jurisdictional managed wetlands. These two managed wetlands areas would remain managed wetlands with the proposed Project. There are existing public benefits provided within these areas that would be disrupted if the SAFER Bay alignment were shifted landward. For example, essential critical drinking water infrastructure and state highways located within areas B and C would be subject to increased flooding, and if area A were returned to bay inundation, approximately 180 acres of critical habitat would be unavailable for federally threatened western snowy plover.

The Project has goals of flood risk reduction, ecosystem restoration, and recreation. The SAFER Bay Project has worked with many stakeholders to come up with the best balance of these goals. For example, SAFER Bay's second objective is to "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…". The western snowy plover objective could not be achieved with a levee alignment located landward of Pond SF2, wherein western snowy plover critical habitat is designated.

[42] BCDC (San Francisco Bay Conservation and Development Commission), 2025. *San Francisco Bay Plan – 2025 Update*.



The comment also asserts that the Project could accelerate sea level rise because the Project isolates four parcels from the bay, citing a study by Nederhoff et al. The study cited by the comment found that bay-wide restoration would reduce water levels during flood events, although sea level rise would limit the reduction in flood water levels.[43] The Project is designed to consider the effects of sea level rise, and at least one of the parcels is used to detain stormwater during flood events. The Project would not clearly reduce the beneficial flood reduction effects of tidal restoration and attributing such effects to the Project would be speculative; further, consistent with CEQA requirements, the Draft EIR focuses on adverse physical environmental effects caused by the Project.

The comment also asserts that tidal amplification due to isolating the four parcels could be small but equate to additional years when South Bay tidal marshes are not inundated, citing a study by Hummel and

[43] Nederhoff, K.; Saleh, R; Barnard, P. and M Stacy, "Mitigating Flood Risks in Urban Estuaries: Tidal Dynamics, Shoreline Hardening, Nature-Based Solutions, and Floodgates in San Francisco Bay" ASCE Journal of Waterway, Port, Coastal, and Ocean Engineering, Vol. 151, Issue 6, September 5, 2025. Nederhoff et al. use hydrodynamic modeling to compare the potential effects of bay-wide restoration on bay water levels and found that bay-wide restoration was predicted to reduce water levels during the 10-year flood event by less than 15 centimeters (cm) in most of the bay and up to 23 cm in the far southern end of the bay. With sea level rise, the attenuating effect of the bay-wide restoration was reduced, with predicted reductions in water levels of less than 5 cm throughout the bay. The additional acreage that the comment asserts would be isolated from the bay due to the Project, 424 acres, is less than 2 percent of the restoration acreage modeled by Nederhoff et al. Therefore, the effect of the Project would likely be on the order of 2 percent of these modeled effects.

Stacy.[44] Tidal marsh habitat is governed by the typical tidal range. Hummel and Stacey predicted that the two shoreline segments that include the Project cause less than 2 cm in water level change. The fraction of this change attributed to the Project would be up to 75 percent of 2 cm, which equals 1.5 cm. This represents a very small proportion of the existing tidal range in the Project vicinity (8.6 feet between mean lower low water and mean higher high water as shown in Draft EIR Table 3.11-1). Furthermore, the Project proposes to restore approximately 576 acres of tidal marsh, which is substantially greater than the Project's permanent jurisdictional habitat impacts (approximately 57 acres of jurisdictional habitats including tidal marsh).

Comment CCCR-118

"a. Provide an alternative levee alignment that maximizes Bay area and volume. In particular, consider an interim levee between ponds U1 and U2, with the FEMA levee going along the upland side of U3. The Restore Hayward Marsh project has an interim levee between managed ponds, with a FEMA levee planned for the far inland edge of the marsh in the future."

Response CCCR-118

An alternative alignment along the upland side of U3 was considered as part of the Feasibility Report Low Cost Alternative and eliminated from further consideration for the reasons described on Draft EIR page 4-29. Refer to Draft EIR pages 4-1 and 4-2 regarding CEQA criteria used in screening EIR alternatives. The proposed approach was developed in consultation with staff from USFWS to advance the Project's objective to "enhance and protect habitat for WSP, consistent with the South Bay Salt Ponds Restoration Project." Failure to protect U2 and U3 in Pond SF2 would be inconsistent with the Project's objective to enhance and protect result in future impacts to western snowy plovers.

Comment CCCR-119

"b. Perform a hydrologic analysis comparing the risk of tidal amplification from locating the levee where it is (isolating future Baylands) with the alternative alignment where the levee is adjacent to development (as upland as possible). Mitigate any unavoidable isolation of future Bay area and volume."

Response CCCR-119

See **Response CCCR-117**, which provides interpretation of prior hydrodynamic modeling, indicating that the likely tidal amplification effects of the entire Project are on the order 1 centimeter, and the likely effects of the alternative alignment is on the order of 0.1 cm. As discussed in **Response CCCR-117**, the EIR appropriately uses current environmental conditions as the baseline for impacts and does not consider a future baseline.

[44] Hummel, M. A., & Stacey, M. T. (2021). Assessing the influence of shoreline adaptation on tidal hydrodynamics: The role of shoreline typologies. *Journal of Geophysical Research: Oceans*, *126*, e2020JC016705. https://doi.org/10.1029/2020JC016705. Hummel and Stacey used hydrodynamic modeling to assess the difference between protecting the shoreline at its current location as compared to allowing shoreline overtopping. The proposed Project falls within two of these segments: the Project north of the Dumbarton Bridge comprises about 30 percent of one shoreline segment, and the Project south of the Dumbarton Bridge comprises about 75 percent of the other shoreline segment.

Comment CCCR-120

"c. Based on the elevation that ponds U2 and U3 need to be drained to perform as WSP habitat, provide an estimate of when Bay level will be so high that pumping water out of ponds U2 and U3 will no longer be practicable. As an example, mean sea level (MSL), the average surface level of the South Bay, is currently about 3.4 feet NAVD88. Groundwater levels adjacent to the Bay generally match or exceed MSL. If the bottom of the ponds is around 5 feet NAVD88, once the local groundwater levels get to about 6 feet NAVD88 it will be difficult to draw down below that level without a large amount of pumping. MSL is estimated to reach 6 feet NAVD88 after 2.6 feet of sea level rise or by about 2090 (Intermediate level risk scenario, State of California Ocean Protection Council (OPC) 2024)."

Response CCCR-120

The comment hypothesizes that future groundwater flow rates into Cell U2 and Cell U3 could be high enough to make pumping impractical to manage this area as dry WSP habitat. As indicated by the Draft EIR (p. 3.11-49) and further described in this response, groundwater flow rates are low in this area, due to the low hydraulic conductivity of the underlying Young Bay Mud. Therefore, groundwater inflows to the WSP habitat are not anticipated to exceed reasonable pumping capacity even for the upper end of future sea level rise projections.

Groundwater flow rates into Cell U2 and Cell U3 landward of the proposed levee can be estimated by extending the assumptions in the comment and using Darcy's Law. Darcy's Law estimates groundwater flow rate (Q) as a function of hydraulic conductivity (K); aquifer cross-sectional flow area, as the product of the cross-section's length (L) and depth (D); and the hydraulic gradient, as the ratio of water level change (dh) divided by horizontal distance over which that water level change occurs (dx):

$$Q = K\,LD\,\frac{dh}{dx}$$

Approximate values for these parameters at Cells U2 and U3, as well as the sources for these values, are provided in the table below.

Parameter	Approximate Value	Source
K	0.0015 ft/d	Bay Mud hydraulic conductivity evaluation, from EKI (2018)[45]
L	5,000 ft	Linear feet of proposed SAFER levee along east and south side of Cell U2 and Cell U3
D	50 ft	Thickness of Young Bay Mud in the vicinity of Dumbarton Bridge, from Metzer (2002)[46]
dh	5 ft	Future mean sea level*: 10 ft NAVD minus Cell U2 & U3 pond bottom elevation: 5 ft NAVD
dx	150 ft	Width at the base of the Project levee around Cell U2 and U3

* Current mean sea level, 3.3 ft NAVD, plus 2100 High sea level rise projection (OPC 2024), 6.6 ft, equals 10 ft NAVD (rounded to nearest foot)

[45] EKI, 2018. *San Mateo Plain Groundwater Basin Assessment*. Prepared for County of San Mateo.

[46] Metzger, L.F., 2002. *Streamflow Gains and Losses along San Francisquito Creek and Characterization of Surface-Water and Ground-Water Quality, Southern San Mateo and Northern Santa Calar Counties, California 1996-97*. U.S. Geological Survey Water Resources Investigations Report 02-4078.

Entering these estimated values into the equation for Darcy's Law results in an estimated groundwater inflow to Cell U2 and U3 of 0.00014 cubic feet per second (cfs). This flow rate is several orders of magnitude lower than even a relatively small pump. For instance, a typical residential sump pump capacity is 50 gallons per minute, which is equivalent to 0.11 cfs, which is about one thousand times larger than the predicted groundwater flow rate into Cell U2 and Cell U3.

These calculations indicate that groundwater inflow rates are likely to be much smaller than pumping capacity, even for 6.6 feet of sea level rise.

Additionally, the comment addresses potential *effects of the environment* on *Project operations*, while the purpose of CEQA is to evaluate the *effects of a project on the environment*.

Comment CCCR-121

"6. **This is an important project for coastal flood protection of the South Bay**, so critical that it should not be rushed by assessing impacts too broadly or eliminating less impactful alternatives due to time constraints or a lack of easement negotiations."

Response CCCR-121

As described in the Draft EIR Summary Chapter S.5, the Draft EIR includes a CEQA alternatives analysis that evaluates a reasonable range of alternatives, including the No Project Alternative and a Modified Footprint Alternative, and explains alternatives considered but eliminated with supporting rationale (Chapter 4 of the Draft EIR, *Alternatives*). Additionally, as outlined in Summary Chapter S.6.2, the Draft EIR identifies Issues to Be Resolved and explains that as design advances, the SAFER Bay Project Team or its member agencies will conduct supplemental CEQA review pursuant to CEQA Guidelines sections 15162–15164, as warranted, to address Project refinements and ensure impacts are fully evaluated.

Comment CCCR-122

"7. **The location of FEMA levees is generally fixed once they are constructed**, and so careful deliberation and input from many stakeholders should precede and inform determination of the alignments. Best practice for minimizing Bay impacts is to build FEMA levees as upland as possible, along the edge of development. The further out in the marsh levees are built, the greater the instabilities and settlement related to the Bay muds beneath."

Response CCCR-122

The SAFER Bay Project has been in development since 2011 and has had scores of meetings with stakeholders. The Project has an advisory group that has been meeting since 2021 to help shape the Project. Table 1-1 (Draft EIR page1-5) listed over 20 public events just since 2020. As stated in the Draft EIR on page 2-4 of the *Project Description*, "SFCJPA has engaged with member agencies, regulators, and other interested parties in identifying the proposed SAFER Bay reach alignments. Factors considered in identifying the proposed reach alignments and shoreline protection design include, but are not limited to, the following:

- Spatial requirements and design guidelines and regulations for engineered shoreline protection features.
- Limiting impacts on salt marsh habitat.

- Limiting impacts on waters of the United States and waters of the state.
- Habitat improvements proposed as part of the Project.
- Property ownership.
- Presence of soil and groundwater contamination and remediation systems.
- Presence of existing utilities."

Regarding design standards related to geologic, seismic, and geotechnical design criteria including settlement, refer to **Response BCDC-22**.

Comment CCCR-123

"8. **An SSAP should precede this project due to its large size and impacts**. Local governments are required by law SB272 (2023) to develop Subregional Shoreline Adaptation Plans (SSAPs) for sea level rise. BCDC issued guidelines for preparing SSAPs in December 2024. The project proposes a coastal flood protection system that is about 7 miles long and is designed to protect 3 cities. This is a large subset of San Mateo County's Bay shoreline and spans organizational landscape unit (OLU) 24 plus a portion of OLU 25, an extent that would be appropriate to have its own SSAP. The cities of Belmont, San Carlos, Redwood City, Menlo Park, and East Palo Alto were awarded a $2M grant from the OPC in September 2025 to prepare a SSAP that complies with the BCDC RSAP guidelines. Moving forward with this project before the SSAP is in place bypasses important elements of the RSAP process, namely 1) implementing an equity strategy and performing equitable outreach and engagement, 2) assessing all coastal flood hazards including groundwater rise, 3) development of land use policies and codes that could distribute costs for coastal flood protection more equitably, and 4) consideration of alternatives to a very tall levee designed for 3.5 feet of SLR, such as gradual/phased adaptation and managed retreat (upland relocation of facilities). Although Table 1-1 shows that a very large number of public presentations on the project was given to community groups, and I understand the BRRIT has been reviewing this project for a long time, this outreach is different than the RSAP process, which asks the community what is important to them on their coast, and develops alternatives as an extension of those values and priorities.
    a. Aside from the South of Bay Road Reach portion of the project and the restoration elements of the project, it is recommended to wait to design the rest of the levees until a SSAP has been prepared, meeting the RSAP guidelines."

Response CCCR-123

In its comments on the Draft EIR (presented in Section 3.2.2 of this document), BCDC, the state agency with oversight responsibility for development of the Regional Shoreline Adaptation Plan (RSAP), did not express concerns that the Project may be bypassing elements of the Subregional Shoreline Adaptation Plan (SSAP). BCDC's comment letter "recognize[s] the importance and scope of this project," and the staff member who signed BCDC's letter has participated in review of the Project for more than 3 years as a member of BRRIT. Refer to Section 3.2.2 of this document for BCDC's comments. The SFCJPA Board formally adopted the Bay Adapt Joint Platform[47] for the SAFER Bay Project in 2021, which is a foundational element for the RSAP process. In fact, at BCDC's public workshop for RSAP on May 31, 2024, the SAFER Bay Project was featured as an example project.

[47] Bay Adapt, 2026. "Bay Adapt Joint Platform." Available online at https://www.bayadapt.org/jointplatform/.

As stated on page vii of the RSAP Guidelines,[48] development of an SSAP is intended to build on existing plans and is not intended to require all new analysis, decision-making, or project development; and the guidelines do not stipulate that an SSAP must be completed preceding the planning and implementation of shoreline adaptation projects. The guidelines for local governments are essentially written to meet cities and counties where they are with respect to planning, with the goal of providing multiple paths to compliance based on work that has been completed. As such, the guidelines include a section describing flexibility when cities have already completed vulnerability assessments or adaptation plans. The Project is being proposed by a joint powers authority that includes the local cities and county within the Project area. In addition, the Project is consistent with the RSAP framework's emphasis on alignment of elevation, sequencing, and timing across jurisdictions to avoid fragmented actions that can create discontinuous protection and shift flood risk to neighboring areas.

Because SB 272 does not require approvals of SSAPs until 2034, waiting for completion of such plans would unnecessarily delay progress toward implementing adaptation projects like the SAFER Bay Project.

Refer to Draft EIR Section 1.3 for a description of the SFCJPA's robust community outreach for the SAFER Bay Project.

Regarding the comment suggesting consideration of alternatives involving a gradual/phased adaptation and managed retreat, refer to **Response CCCR-9,** which addresses phased levee construction, and text on page 4-13 in Draft EIR Chapter 4, *Alternatives*, which states that "The cities of East Palo Alto and Menlo Park do not consider the concept of managed retreat—the planned, deliberate relocation of people and infrastructure away from areas vulnerable to sea level rise and coastal erosion—to be a viable response to managing flood hazards in these communities and thus would not pursue it."

Comment CCCR-124

"9. **The project should consider all sources of coastal flooding, groundwater rise in particular.** Pathways Climate Institute and SFEI's report on shallow groundwater response from sea level rise(57) in San Mateo County states "Low-lying inland areas could flood from below by emergent groundwater long before coastal floodwaters overtop the shoreline." SPUR and Casa Nuestra identified current flooding in East Palo Alto from emergent groundwater and made the following recommendation in their 2024 study (see earlier footnote): "Require all city plans and infrastructure projects to assess the risks of groundwater rise and compound flooding." This project doesn't comply with this and risks exacerbating the inequities experienced by the East Palo Alto community. The City of Alameda, who also currently experiences stormwater flooding from shallow groundwater(58), is including upgrades to stormwater infrastructure in their SLR adaptation planning projects (one example is the Northern Waterfront Area northern-waterfront r4.pdf). There are limited dollars available for sea level rise resilience and it makes sense to fund the highest priority projects first. In addition, city public works departments all around the Bay are severely underfunded and struggling to keep up with capital improvements and maintenance.

[48] BCDC (San Francisco Bay Conservation and Development Commission), 2024. *Regional Shoreline Adaptation Plan: One Bay Vision, Strategic Regional Priorities, and Subregional Shoreline Adaptation Plan Guidelines.*

Multibenefit projects such as this that can qualify for grants should include the necessary drainage upgrades related to sea level rise adaptation, even if similar projects exist in city's master plans.

a. Assess current and future impacts of SLR-induced groundwater rise in the project area and in East Palo Alto specifically, include solutions in the project to reduce these risks, and schedule the construction of infrastructure to address groundwater emergence flooding prior to levee construction in areas like East Palo Alto where it is an immediate hazard to the community."

[Comment Footnotes:

[57] Shallow Groundwater Response to Sea Level Rise | San Francisco Estuary Institute
[58] City of Alameda and Silvestrum Climate Associates, The Response of the Shallow Groundwater Layer and Contaminants to Sea Level Rise, November 2020 slr2020.pdf]

Response CCCR-124

For a response regarding the Project's effects on shallow groundwater, please refer to **Response BCDC-30**. As discussed in Response BCDC-30, the sheet pile walls would be present along approximately 35 percent of the levee alignment (South of Bay Road, Dumbarton Approach, and Tech Campus reaches) and are not expected to substantially increase the risk of groundwater emergence. Comment CCCR-124 requests that the EIR assess current and future impacts of sea level rise induced groundwater rise in the Project area. CEQA requires that, in evaluating the significance of the environmental effect of a project, the Lead Agency shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project (CEQA Guidelines section 15064[d]). CEQA Guidelines section 15126.2(a) states that an EIR shall identify and focus on the significant effects of the proposed project on the environment. The Draft EIR evaluates the Project's impacts against existing conditions, consistent with CEQA Guidelines section 15125. The Draft EIR is not required to evaluate the impacts of sea level rise induced groundwater rise on the Project area, and doing so would potentially undermine the use of the EIR as an informative document by incorrectly misattributing sea level rise effects to the Project. An EIR should also analyze any significant environmental effects the Project might cause or risk exacerbating by bringing development and people into the area affected (CEQA Guidelines section 15126.2[a]). In this case, the Project would not bring additional development or people into the affected area but instead protect an area that is already developed. Existing groundwater emergence and sea level rise induced groundwater rise are not caused by the Project.

Comment CCCR-125

"10. Transparency regarding funding sources for project construction and maintenance, particularly Substation and Tech Campus Reaches. PG&E and Meta are large for-profit companies. The Substation and Tech Campus reaches will provide huge flood protection benefits to these corporations, and design, permitting, construction and maintenance will potentially be funded by taxpayers. While these companies pay property taxes like all landowners in the County, and (in PG&E's case) provide a public benefit, they are different in that their use of the land is for the ultimate purpose of making profits. In 2024 Meta reported a net income of $62.4 billion and PG&E reported a profit of $2.47 billion. Although not required to, the DEIR doesn't explain where the funding will come from for this project. It is not equitable for taxpayer funds to benefit large, profitable private companies that are financially capable of funding their own flood protection. Many municipalities around the Bay (including Burlingame and Alameda) require private property owners on the shoreline to be responsible for SLR resilience on their properties.

a. Provide transparency and opportunities for public input regarding the financing of all phases and segments of this project.

b. As levees and other grey infrastructure in the project will fail without adequate maintenance, explain which entities will be responsible for levee maintenance and how that work will be funded."

Response CCCR-125

The SAFER Bay Project Team acknowledges that funding and operation and maintenance are vital components of any project, particularly for a large, complex multi-jurisdictional one. However, details about funding for construction and operation and maintenance are not fully defined and are beyond the scope and purpose of objectives for this environmental document. As described in Draft EIR Section 2.7 (beginning on page 2-63), member agencies (the cities of Menlo Park and East Palo Alto) would be responsible for conducting routine inspections and maintenance of the shoreline protection facilities and flood gates, managing interior drainage, and maintaining the Bay Trail. Existing landowners would be responsible for maintaining public trails on their property. The SBSPRP and/or Refuge would be responsible for monitoring and maintenance of proposed restoration areas.

3.3.4 Nuestra Casa

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

Comment Nuestra Casa-1

"We appreciate the opportunity to comment on the SAFER Bay Draft Environmental Impact Report. While we wholeheartedly support the SAFER Bay Project and appreciate the consideration of many community concerns, such as project-related traffic congestion issues and public access to the shoreline, we have identified several areas that we believe require further development in the Updated EIR in order to advance equitable and effective flood adaptation— particularly for the East Palo Alto and Belle Haven communities, where inland flooding is already being experienced during stormy King Tides events, such as in December 2025 (see photos in Appendix).

Impacted community members are deeply concerned about being protected from flooding both now and in the future, particularly given the high cost of recovery from flood damages (which many residents cannot shoulder), and the current cost burden of FEMA flood insurance requirements. Many residents hope the SAFER project will eliminate the need for mandatory flood insurance, but also want assurance that the SAFER project will deliver the promised level of protection, since a flood occurring after neighborhoods are removed from FEMA flood zones could have devastating consequences. Please keep in mind these concerns as you review our comments.

These recommendations were developed in partnership with Jenn Hyman, the Citizens to Complete the Refuge, and the Sierra Club, as well as community leaders and residents."

Response Nuestra Casa-1

As stated in the Draft EIR on page 2-3 of the Project Description: "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 reducing "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."

Regarding the level of flood protection provided by the Project, as stated in the Draft EIR (page 2-5):

> 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 an additional 3.5 feet of elevation to account for anticipated sea level rise by 2100 as well as other applicable FEMA design criteria (e.g., for the evaluation of settlement and structural stability). 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 June 2023 Planning Policy Guidance*.

Regarding the reference to an updated EIR, this Responses to Comments document together with the Draft EIR constitutes the Final EIR for the Project consistent with CEQA requirements. Updates to Draft EIR are included in Chapter 4 of this document, *Draft EIR Revisions*. Please refer to the **Global Response on Level of Detail: Project and Program Analysis** for information regarding future evaluation of the Project under the California Environmental Quality Act (CEQA).

Comment Nuestra Casa-2

"1. The Updated EIR should comprehensively evaluate all sources of impacted coastal flooding, including sea level rise–induced groundwater rise.

Research by the Pathways Climate Institute and the San Francisco Estuary Institute demonstrates that low-lying inland areas may flood from emergent groundwater well before shoreline overtopping occurs. East Palo Alto already experiences flooding from shallow groundwater, a condition documented by the Look Out Below report by SPUR and Nuestra Casa in 2024.

Despite this evidence, the DEIR does not adequately assess current or future groundwater rise impacts, nor does it incorporate solutions to mitigate these risks. This omission risks exacerbating existing inequities in East Palo Alto. The Updated EIR should:

- Quantitatively assess current and future groundwater rise and compound flooding impacts in the project area.
- Identify and incorporate project-level measures to reduce groundwater emergence risks. Sequence construction so that interior drainage infrastructure is implemented before levee construction in areas where groundwater flooding is already an immediate hazard."

Response Nuestra Casa-2

The potential for sheet pile walls to adversely affect groundwater levels was also raised in comments BCDC-30 and Palo Alto-10 and is addressed comprehensively in **Response BCDC-30**. In summary, the sheet pile walls would not substantially change the absolute groundwater flow rates through the bay mud layer because the existing hydraulic conductivity in much of the soil that the sheet piles would penetrate is already very low. Sheet pile walls are proposed in approximately 35 percent of the levee alignment. In addition, the sheet pile wall would extend less than halfway through the sediment layers with higher hydraulic conductivity below the bay mud. See also revisions to the text in Section 4.2.3 made in

response to Comment BCDC-30. **Response CCCR-120** includes a quantitative assessment of the groundwater inflow rates to Cells U2 and U3 and shows that the groundwater inflow rate is several orders of magnitude lower than the pumping capacity even with sea level rise. As discussed in greater detail in **Response CCCR-124**, existing groundwater emergence and sea level rise-induced groundwater rise are not caused by the Project. As documented in **Responses BCDC-30** and **CCCR-120**, and consistent with the conclusions of the Draft EIR, the Project would not exacerbate groundwater rise.

Comment Nuestra Casa-3

"1a. Groundwater Emergence Hazards & the Steel Sheet Pile Wall. The proposed mile-long deep steel sheet pile wall along the South of Bay Road Reach presents a significant risk of exacerbating groundwater emergence hazards. Subsurface barriers can impede groundwater flow, inundate storm drains, and reduce drainage capacity—conditions already present and expected to worsen in East Palo Alto with sea level rise.

The Updated EIR should:

- Provide a hydrologic analysis of the sheet pile wall's potential to exacerbate groundwater emergence hazards under current and future sea level rise conditions through the project's life (out to 2100).
- Assess whether altered groundwater flow could mobilize contaminants into surface or drainage systems.
- Consider a long-term groundwater monitoring program to track and manage these risks.
- Identify mitigation measures or design alternatives to reduce subsurface barrier effects.

Given limited funding for sea level rise adaptation, multibenefit projects such as this should include necessary drainage upgrades, even if similar improvements appear in city master plans (like East Palo Alto's 2014 Stormwater Master Plan)."

Response Nuestra Casa-3

As noted in Response Nuestra Casa-2, refer to **Responses BCDC-30** regarding potential for groundwater emergence. The potential for groundwater flow to mobilize contaminants is addressed comprehensively in **Response CCCR-110**. In summary, for the reasons discussed in BCDC-30, the Project is unlikely to substantially affect groundwater flow. In addition, as discussed in Response CCCR-110, the Project's pump stations would primarily operate during and after flood events, and the rate at which groundwater would flow into existing stormwater pipelines is substantially smaller than the conveyance capacity of the existing pump stations or stormwater pipelines. Nonetheless, the SAFER Bay Project Team may review existing groundwater monitoring well networks in San Mateo County and consider supplementing that network (to be determined in the future). As discussed in Draft EIR Impact HYD-3, the Project with mitigation includes drainage infrastructure that would reduce the Project's potential to worsen flooding.

Comment Nuestra Casa-4

"1b. Hazardous Materials Management. The SAFER project will be constructed along a shoreline with a long history of environmental contamination from historical and current industrial activities. Shoreline excavation has the potential to mobilize contaminants into Bay wetlands and waters and to

expose construction workers, nearby residents, sensitive populations, and wildlife to hazardous substances. We have a number of concerns regarding proposals in the DEIR.

- SAFER Health and Safety Plan: Where SAFER will be constructed in areas with approved construction risk management plans (i.e., sites in the South of Bay Road and North of Bay Road reaches), the DEIR proposes to use the approved soil cleanup levels and protocols for those sites (page 3.10-19). However, the approved plans may not include adequate mitigation measures for a SAFER Health and Safety Plan.
    - Require monitoring to ensure health & safety: Existing site data may be incomplete, outdated, or based on criteria that are no longer considered protective. The EIR should require onsite soil and groundwater monitoring (i.e., field test kits, sensitive and specific chemical sensors) to be used during excavation in all reaches with past industrial use, requiring follow-up sampling laboratory analysis when concentrations exceed screening levels."

Response Nuestra Casa-4

As noted in **Response CCCR-63**, soil testing is required by Mitigation Measure HAZ-2, and the approach to soil testing has been clarified as shown in mitigation measure refinements in Section 4.2.4 (refer to Chapter 4 of this document, *Draft EIR Revisions*).

Comment Nuestra Casa-5

- "Provide further protection from arsenic: Several SAFER reaches contain elevated levels of arsenic, a major contributor to human health and cancer risk. Because levee slopes will not be paved and may be accessible to the public, the Updated DEIR should use of the Water Board's residential soil cleanup level of 11 mg/kg for arsenic, rather than less protective standards."

Response Nuestra Casa-5

As discussed in greater detail in **Response CCCR-62**, residential, commercial, or industrial uses are not proposed on the levees; however, as shown in Chapter 4 of this document, *Draft EIR Revisions*, the SAFER Bay Project Team has voluntarily included consideration of the Environmental Screening Levels (ESLs) in Mitigation Measure HAZ-2 (Soil Management Plan) as criteria for reusing soil excavated at the site.

Comment Nuestra Casa-6

- "Clean imported soil: We are concerned about the potential for imported soil/fill for levees to bring additional toxins into the community. Imported soils used for levels should also be screened more rigorously. While the Master QAPP focuses on protecting wildlife habitat, SAFER levees are often adjacent to residences, workplaces, schools, or parcels planned for future housing or schools. Therefore, levee soils should meet the more protective of the Master QAPP screening levels or the Water Board's current Tier 1Environmental Screening Levels, with both sets of thresholds clearly presented in the EIR. It should also be clearly stated that ESLs are screening tools, not cleanup levels."

Response Nuestra Casa-6

As discussed in greater detail in **Response CCCR-62**, residential, commercial, or industrial uses are not proposed on the levees; however, as shown in Chapter 4 of this document, *Draft EIR Revisions*, the SAFER Bay Project Team has voluntarily included consideration of the ESLs in Mitigation Measure HAZ-2 (Soil Management Plan) as criteria for reusing soil excavated at the site.

Comment Nuestra Casa-7

- "Address potential excavation impacts on air quality: We are concerned that the DEIR's air quality analysis concludes construction impacts will be less than significant without evaluating exposure to noncriteria toxic air contaminants, such as arsenic, PAHs, and VOCs, that may be released during excavation and soil handling. This omission is especially troubling for communities adjacent to contaminated sites. For reaches such as the South of Bay Road Reach, where contaminated soils are capped (such as at 1990Bay Road), additional reach-specific mitigation measures should be required."

Response Nuestra Casa-7

The commenter expresses concern that the Draft EIR's construction air quality analysis did not evaluate potential exposure to toxic air contaminants (TACs) such as arsenic, polycyclic aromatic hydrocarbons (PAHs), and volatile organic compounds (VOCs), that could be released during excavation and soil handling, particularly in reaches with known contamination such as the South of Bay Road Reach. The commenter also requests additional reach-specific mitigation for areas with known contamination.

As described in Draft EIR Section 3.2, Air Quality, the Health Risk Assessment conducted for the Project evaluates diesel particulate matter and $PM_{2.5}$ (particulate matter less than or equal to 2.5 microns in diameter) consistent with the Bay Area Air District's CEQA guidelines, which identify these pollutants as the primary drivers of construction-related cancer risk and chronic health impacts. Evaluation of site-specific non-criteria TACs is typically not included in construction Health Risk Assessments because these emissions cannot be reliably estimated and are more appropriately addressed through hazardous materials regulations and site-specific management measures that govern the management, handling, and disposal of contaminated media to reduce exposure to workers as well as sensitive receptors in the vicinity including residences and schools.

Quantitative air dispersion modeling of non-criteria TACs such as arsenic, PAHs, or VOCs is not feasible at this point because the emission rates necessary for modeling are unknown and cannot be reasonably predicted. Emissions of these contaminants during excavation depend on factors such as the exact concentration and distribution of contaminants in soil, the soil matrix, moisture content, excavation method, equipment type, and real-time handling practices. As a result, there are no published construction emission factors or activity-based release rates that would allow for defensible modeling of airborne concentrations or associated health risks. CEQA practice therefore relies on regulatory controls and management plans and not dispersion modeling to address these hazards.

For this Project, potential releases of non-criteria TACs are instead comprehensively managed through regulatory compliance and through Mitigation Measures HAZ-1 (Health and Safety Plan), HAZ-2 (Soil Management Plan), and HYD-1b, along with implementation of existing regulatory plans, such as the 2020 Contingency Remedial Management Plan (CRMP) for the 1990 Bay Road Site and the 2021

Area-Wide Risk Management Plan for the Sycamore Real Estate Site. These plans, administered by the regional water quality control board (RWQCB), include specific protocols for identification, handling, containment, and disposal of contaminated soils and groundwater.

Mitigation Measure HAZ-1 requires preparation and implementation of a site-specific Health and Safety Plan pursuant to federal Occupational Safety and Health Administration and California Occupational Safety and Health Administration hazardous waste operations regulations. The Health and Safety Plan must do the following:

- Identify all known and reasonably foreseeable hazardous materials.
- Specify worker exposure limits and appropriate personal protective equipment.
- Require work stoppage and investigation if evidence of unknown contamination is encountered.
- Document implementation of safety measures throughout construction.

These requirements ensure that any potential exposure of workers or the public to non-criteria TACs during excavation is addressed directly at the source.

Mitigation Measure HAZ-2 requires a Soil Management Plan for all construction areas within or adjacent to known contaminated sites. The Soil Management Plan establishes procedures for worker training, soil testing, stockpile management, transport, and disposal of contaminated soil. Where an RWQCB-approved plan is already in place (e.g., the CRMP for the 1990 Bay Road Site), the Project must implement that adopted plan.

Through (1) compliance with existing hazardous materials regulations; (2) adherence to RWQCB-approved site-specific management plans; and (3) implementation of Mitigation Measures HAZ-1, HAZ-2, and HYD-1b, the Project would ensure that any potential exposure to hazardous substances, including non-criteria TACs, during soil-disturbing activities is reduced to a less-than-significant level. Because these measures provide a comprehensive and enforceable framework for managing contaminated materials, additional reach-specific mitigation is not required.

Comment Nuestra Casa-8

> "1c. Contaminant Mobilization & Groundwater Pumping. East Palo Alto has known shallow groundwater contamination. The introduction of new pumping systems could draw contaminated groundwater into stormwater infrastructure or discharge it to San Francisco Bay. The Updated EIR should:
>
> - Provide stormwater and groundwater quality data demonstrating that pumped discharges would meet water quality standards, or
> - Include treatment measures before discharge if contamination risks are present. Comparable facilities, such as San Francisco International Airport, acknowledge and treat contaminated stormwater drawn from shallow groundwater; similar considerations are warranted here, or
> - Require accelerated groundwater cleanups by the responsible parties of local contaminated sites."

Response Nuestra Casa-8

Refer to **Response CCCR-110** regarding the first two bullets of this comment. The third bullet of this comment recommends the Draft EIR require accelerated groundwater cleanup by the responsible parties of local contaminated sites. Although, as discussed in Responses BCDC-30 and CCCR-110, the likelihood of Project operations to cause increased release of contaminants to the San Francisco Bay is low, even if the Project were to result in degradation of stormwater quality, requiring responsible parties of local contaminated sites to accelerate remediation would not be feasible mitigation pursuant to CEQA. As noted in CEQA Guidelines section 15040(b), CEQA does not expand the powers granted to public agencies granted by other laws. The latter is outside of the authority of the lead agency (SFCJPA) and therefore is not feasible mitigation pursuant to CEQA.

Comment Nuestra Casa-9

> "FEMA accreditation of floodwalls requires adequate interior drainage, typically through French drains and pump systems discharging over the wall. If such systems are anticipated, their design, impacts, and mitigation measures must be analyzed in the Updated EIR. See next section for more information."

Response Nuestra Casa-9

The Draft EIR includes drainage improvements that are proposed as part of the Project and evaluates the potential impacts of the drainage improvements. The commenter is referred to Draft EIR Chapter 2, *Project Description*, and Appendix INFRA. Draft EIR Impact HYD-3 includes an evaluation of the additional drainage improvements and identifies additional drainage improvements that would be required to avoid worsening flooding.

Comment Nuestra Casa-10

> **"2. The Updated EIR should revisit conclusions regarding hydrology and drainage impacts.**
>
> While the DEIR characterizes impacts to drainage patterns and utilities as less than significant with mitigation, it also acknowledges that the project would add runoff to East Palo Alto's storm drain system and could worsen flooding conditions without additional development.
>
> Key issues requiring further analysis include:
>
> - The elimination of four gravity outfalls north of Bay Road and the resulting increased reliance on East Palo Alto's storm drainage system and the O'Connor Pump Station, which is located where groundwater levels are shallowest.
> - The absence of quantitative analysis means that it is unclear if the proposed Runnymede Pump Station and existing O'Connor Pump Station can adequately handle post-project drainage demands.
> - The lack of proportional mitigation for impacts to the O'Connor Pump Station, despite evidence that project-related drainage impacts may be substantial and were not anticipated in East Palo Alto's 2014 Stormwater Master Plan.
> - The Updated EIR should:
> - Provide quantitative modeling of project-related drainage impacts and require proportional contributions to necessary pump station upgrades.

- Demonstrate, through analysis, that the Runnymede and O'Connor pump stations can adequately manage drainage with the project in place.
- Include conceptual drawings and analysis of the proposed Runnymede Pump Station, associated pipelines, and outfall locations, as well as their environmental impacts."

Response Nuestra Casa-10

As discussed in **Response CCCR-108**, modeling conducted as part of the 2024 Utility Impact Study for the Ravenswood Business District Specific Plan includes scenarios that are functionally equivalent to the effects of the Project north of Bay Road. The East Palo Alto Waterfront Project, a mixed-use development in the Ravenswood Business District, is proposed north of Bay Road and could be completed prior to construction of the SAFER Bay Project. However, the Draft EIR impact analysis conservatively considers the potential impacts of the proposed levee if it proceeds prior to other development north of Bay Road. The Draft EIR analysis states on page 3.11-47 that the existing stormwater drainage system does not have capacity to convey runoff from the 10-year storm, or larger storm events. Therefore, assuming no other development occurs north of Bay Road prior to levee construction, the Project would contribute runoff (by eliminating eastern gravity outfalls north of Bay Road), which would exceed the capacity of the existing stormwater drainage system and could worsen flooding. The 2024 Utility Impact Study identifies improvements to the stormwater drainage system that would avoid increased flood depths throughout the city caused by the combination of eliminating the eastern gravity outfalls and adding drainage area to the stormwater drainage system. The 2024 Utility Impact Study notes that a new Runnymede Pump Station reduces flooding throughout the East Palo Alto storm drain system and "can mitigate for any developments connecting to systems draining to Runnymede and O'Connor."[49]

To conclude Project impacts are less than significant with mitigation, the Draft EIR must demonstrate that Mitigation Measure HYD-2a avoids impacts caused by the Project. This standard differs from the commenter's request that the Draft EIR demonstrate "that the Runnymede and O'Connor pump stations can adequately manage drainage with the Project in place." Based on the 2024 Utility Impact Study conclusions, the Draft EIR concluded that Mitigation Measure HYD-2a would be effective in reducing the Project's impacts on flooding to be less than significant with mitigation.

CEQA requires an EIR to describe feasible measures that could reduce the significant adverse impacts of a project. CEQA Guidelines section 15126.4(a)(1)(B) explains that the specific details of a mitigation measure may be developed after project approval when it is impractical or infeasible to specify those details during the EIR review process, provided the lead agency commits to implementing the mitigation, adopts performance standards the mitigation will achieve, and identifies the types of actions that may be implemented to achieve compliance with the performance standard. Mitigation Measure HYD-2a complies with these guidelines despite not including conceptual drawings of the pump station, pipelines, and outfall locations.

The Draft EIR evaluates the potential impacts of Mitigation Measure HYD-2a starting on page 3.11-48. A greater level of detail for the Project description is not necessary for the lead agency, decision-makers, or the public to reasonably consider and understand the environmental impacts of the Project. Any future refinements to the Project as Project design progresses would be compared to what was proposed and

[49] 2024 Utility Impact Study page 6-5.

analyzed in the EIR. If final Project designs are not consistent with the Project analyzed in the EIR and have the potential for additional impacts, subsequent CEQA screening consistent with the CEQA Guidelines (section 15162 et seq.) could be required. CEQA's subsequent review requirements exist precisely because a project's design may change as more detailed field studies (such as geotechnical evaluations) and design become available after project approval.

Refer also to **Global Response on Level of Detail: Project and Program Analysis** regarding Project implementation and the level of detail adequate for the EIR.

Comment Nuestra Casa-11

> **"3. The Updated EIR should evaluate an additional mitigation strategy –a phased levee construction approach– to consider aesthetic impacts as well as lifespan and long-term maintenance concerns.**
>
> The DEIR appropriately concludes that Aesthetic Resources Impact AES-1 would be significant and unavoidable due to the height of the proposed levee and floodwall obstructing views of the Bay and marshlands. However, the Updated EIR should evaluate an additional mitigation strategy: a phased or adaptive construction approach, similar to an approach proposed by the Port of San Francisco in their recent Waterfront Coastal Flood Study (see Reach 3 Initial and Subsequent Actions, page 158-161). Specifically, the project should consider initially constructing earthen levees to FEMA-required heights, with additional elevation (e.g., steel floodwalls or concrete caps) added only when future sea level rise necessitates it. This approach aligns with the Bay Conservation and Development Commission's Regional Shoreline Adaptation Plan (RSAP), which emphasizes phased adaptation and cautions against building for the longest-term sea level projections prematurely. This approach could reduce near-term aesthetic impacts and avoid the risk of installing steel sheet piles decades before they are needed—particularly given their limited lifespan in marine environments and the potential for corrosion before they provide functional benefit."

Response Nuestra Casa-11

As described in Impact AES-1 in Draft EIR Section 3.2, Aesthetic Resources, in some locations (e.g., from the eastern end of Cypress Street in East Palo Alto), the levee and floodwall would block views of most of the East Bay Hills. Views of the East Bay Hills would be available from the trails proposed as part of the Project. The EIR concludes that even with mitigation (Mitigation Measure AES-1: Floodwall Design and Landscaping Treatments**) the impact is still considered significant.** As indicated on Draft EIR page 4-10:

> Regarding significant and unavoidable aesthetic impacts, the interruption of public views of the bay and the East Bay Hills (e.g., looking east at the end of Cypress Street in East Palo Alto) is associated with construction of shoreline protection and recreational features. As indicated in Chapter 2, *Project Description*, 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. Reducing the height of shoreline protection would be counter to the purpose of the Project and its objective to reduce the risk of flooding from San Francisco Bay waters, including consideration of up to 3.5 feet of future sea level rise, and the communities' objective to be removed from the Federal Emergency Management Agency (FEMA) floodplain. Consequently, the strategy of reducing the height of shoreline protection was eliminated from further consideration."

As discussed in greater detail in Response CCCR-9, a phased approach to levee construction that includes staged elevation increases would not clearly reduce impacts and could undermine the ability to meet Project objectives. Any alternative that does not clearly reduce impacts and does not meet the Project's purpose and key objective related to flood protection does not meet CEQA criteria for inclusion in the EIR as an alternative.

As discussed in greater detail in **Response CCCR-123**, the RSAP guidelines discuss adaptation strategies and pathways and recommend that local governments who have already identified adaptation strategies or projects that follow different state and federal guidelines (such as the Project) consult with Bay Conservation and Development Commission (BCDC) staff to develop a satisfactory approach to meeting RSAP requirements. The Project follows relevant state and federal guidelines. The Project selected up to 3.5 feet of sea level rise as a basis for levee design by considering the State of California 2024 updated guidance[50], which "provided a science-based methodology for state and local governments to analyze and assess the risks associated with sea level rise and reflects substantial advancements in scientific understanding and ability to project future sea level rise" (Draft EIR pages 3.11-10–3.11-11). For critical infrastructure projects such as levee systems, the state guidance recommends consideration of a range of future scenarios, which range in projected 2100 sea level rise from 3.1 to 6.6 feet (Draft EIR, Table 3.11-2). The Project's design criteria of 3.5 feet of sea level rise is near the lower end of this range. Although 3.5 feet of sea level rise by 2100 is considered the most likely scenario, higher rates of sea level rise could cause 3.5 feet of rise by about 2075.[51] The Project's proposed crest elevation is also consistent with planning guidance[52] from OneShoreline, the San Mateo County agency tasked with addressing sea level rise flood hazards. Further, the climate change policy of the BCDC (Draft EIR page 3.11-26) states that projects should consider the estimated 100-year flood elevation, which corresponds to the event used to determine Federal Emergency Management Agency (FEMA) floodplains.

Comment **Nuestra Casa-1 states: "**Impacted community members are deeply concerned about being protected from flooding both now and in the future, particularly given the high cost of recovery from flood damages (which many residents cannot shoulder), and the current cost burden of FEMA flood insurance requirements." Project implementation as proposed would support providing flood protection within a reasonable timeframe for current community members; the staged elevation increases as identified in this comment would not.

Comment Nuestra Casa-12

> "How will the SAFER project effectively integrate with the Bay Conservation and Development Commission's Regional Shoreline Adaptation Plan (RSAP) priorities and process? Although we are grateful to see this project moving forward, the community would like to understand how RSAP priorities will be incorporated."

[50] California Ocean Protection Council, 2024. *DRAFT: State of California Sea Level Rise Guidance: 2024 Science and Policy Update.* California Sea Level Rise Science Task Force, California Ocean Protection Council, California Ocean Science Trust. January 2024. Available online at opc.ca.gov/wp-content/uploads/2024/01/SLR-Guidance-DRAFT-Jan-2024-508.pdf.

[51] California Ocean Protection Council, 2024. *Draft State of California Sea Level Rise Guidance: 2024 Science and Policy Update*. January 2024.

[52] OneShoreline. 2023. *Planning Policy Guidance to Protect and Enhance Bay Shoreline Areas of San Mateo County*.

Response Nuestra Casa-12

OneShoreline is a member of the SFCJPA. OneShoreline's plan includes both Menlo Park and East Palo Alto; thus, by extension includes the SAFER Bay Project in its planning process. The foundation developed by the Community Based Organizations will continue to shape the Project through construction in each city as the SAFER Bay Advisory Groups continue to meet to guide the Project forward. Also see the **Global Response on Future Project Development** in Section 3.1 of this document and **Response CCCR-123**.

Comment Nuestra Casa-13

> "How will this project be funded? This is an ambitious and expensive project, and the community would like to understand how it will be funded and what, if any, costs there may be on residents through taxes or other strategies. Furthermore, how will the impacted cities fund the ongoing maintenance of the levee after completion? Poorly maintained levees that fail could lead to property damages and residential displacement."

Response Nuestra Casa-13

The SAFER Bay Project Team acknowledges that funding and maintenance are vital components of any project, particularly for a large, complex multi-jurisdictional project. Details about funding for construction and maintenance are not fully defined and are outside the scope of this environmental document.

Comment Nuestra Casa-14

> "We urge the San Francisquito JPA to address these issues comprehensively in the Updated EIR to ensure that the project delivers effective, equitable, and durable flood protection without creating new or exacerbated flooding and water quality risks for East Palo Alto, Menlo Park, and Redwood City."

Response Nuestra Casa-14

This is a summary comment based on assertions made in comments Nuestra Casa-2 through 13. For reasons described in the responses to these comments, the issues raised in these comments have been appropriately addressed in the EIR. Refer to Section 3.1.1, **Global Response on Level of Detail: Project and Program Analysis**, for summary discussions of future CEQA review as Project development progresses. For updates to the Draft EIR, refer to Chapter 4 of this document, *Draft EIR Revisions*. The SAFER Bay Project Team will continue to engage the SAFER Bay Advisory Groups as the Project moves forward.

3.3.5 Bay Road Holdings

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

Comment BRH-1

"I am writing on behalf of Bay Road Holdings, LLC, the owners of a 17.5 acer parcel of land at the end of bay road with the general address of 2081 Bay Road. First, thank you for all you have done to move forward the project of protecting the bay from sea level rise. Rather than have a long legal brief, I thought I would lay out areas of concern and suggest we collaborate to find a successful, low-cost solution."

Response BRH-1

This comment has been acknowledged. The SAFER Bay Project Team will continue to collaborate with Bay Road Holdings, LLC regarding status of remediation at the former Romic Site and plans for redevelopment.

Comment BRH-2

"Our areas of concern are:

1. The exact path in the area of the property (further away from the property line to minimize disturbance of dirt in our area)"

Response BRH-2

As part of preliminary engineering, the levee alignment and grading extents have been deliberately sited to avoid all parcels with known contamination or existing regulatory oversight. If additional information is available, please share it with the SAFER Bay design team.

Comment BRH-3

"2. Levy design (we think sheet piles are a better solution in our area rather than earth)"

Response BRH-3

Sheetpiles were evaluated and deemed to be the less preferable alternative in this location. The Modified Footprint Alternative evaluated implementation of the levee/floodwall hybrid with sheetpiles in two segments of the North of Bay Road Reach (see Figure 4-1 in the Draft EIR Chapter 4). Because installation of sheetpiles requires pile driving and given the proximity of residents to the proposed alignment, noise impacts from implementing the levee/floodwall hybrid in the North of Bay Road Reach would result in significant and unavoidable noise impacts (see Draft EIR page 4-23).

Comment BRH-4

"3. Drainage to the bay from our properties (we think your solution will block it)"

Response BRH-4

Draft EIR Impact HYD-3 discusses the elimination of the eastern gravity outfalls north of Bay Road, which would be eliminated by the Project. The Draft EIR includes Mitigation Measure HYD-2a to address the potential effects of the Project on stormwater drainage due to the elimination of gravity outfalls north of Bay Road. If additional information is available regarding drainage from your property, please share it with the SAFER Bay design team.

Comment BRH-5

"4. Timing/order of construction"

Response BRH-5

Refer to Section 2.5 in Chapter 2, *Project Description*, for a description of Project phasing and schedule, and Table 2-4 (Draft EIR page 2-58) for the estimated Project implementation schedule.

Comment BRH-6

"5. Design around cooly landing"

Response BRH-6

The meaning of this comment is unclear. Refer to Draft EIR Figure 2-1 (page 2-2) for the proposed levee alignments for the whole Project and Figures 2-7 and 2-10 (pages 2-22 and 2-25, respectively) for the levee alignments in the South of Bay Road and North of Bay Road reaches near Cooley Landing. Although there is no levee proposed around Cooley Landing, as described in Draft EIR Section 2.4.2 under *South of Bay Road*, at the northern end of the South of Bay Road Reach/southern end of the North of Bay Road Reach, a flood gate across Bay Road would be installed. This flood gate would lay flat, embedded in the roadway, to allow access to the Cooley Landing Education Center most of the time. When bay floodwaters rise to the height of Bay Road at the gate's location, the gate would automatically rise to provide contiguous flood protection from the South of Bay Road Reach to the North of Bay Road Reach.

3.3.6 Cargill

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

Comment Cargill-1

"1. Clarification of Terms

a. The Draft EIR refers EIR should clearly distinguish between:

i. *Brine Channel* (a brine conveyance ditch used for transferring brines throughout salt ponds on the Redwood City site that runs along the south edge of Cargill's property), and

ii. *Cargill RWC Return Line*; a 16-inch underground pipeline that transfers brines between Cargill's Redwood City plant and its Newark plant)."

Response Cargill-1

Draft EIR pages 2-47, 2-51, and 3.11-14 have been revised to distinguish between the brine channel and return line. Refer to Chapter 4 of this document, *Draft EIR Revisions*.

Comment Cargill-2

"b. Figure 3.4.2a – page 285. The EIR should distinguish Cargill's pond as a separate category from a "Managed Pond." Cargill's pond on the maps in the appendices should be labeled "Industrial/Operational Pond.""

Response Cargill-2

Figures 3.4-2a, 3.4-2t, 3.4-2u, 3.4-2v, 3.4-3a, and 3.4-4i have been revised to classify Cargill's maintenance pond as "Industrial/Operational Pond" instead of Managed Pond. Refer to Chapter 4 of this document, *Draft EIR Revisions*.

Comment Cargill-3

"2. Clarification of Proposed Impacts

The EIR should specify the proposed impacts to the *Brine Channel* versus the *Cargill RWC Return Line*. The current project description does not adequately differentiate these impacts.

a. The "Existing Conditions" section for the Marsh Road Reach section (Page 2-55) should include a reference to *Cargill's RWC Return Line*. Additionally, "the canal north of the proposed levee" should be revised to say, "the *Brine Channel* north of the proposed levee.""

Response Cargill-3

Chapter 2 has been revised in several places to differentiate between Cargill's brine channel and return line. Refer to Chapter 4 of this document, *Draft EIR Revisions*. Regarding impacts on the brine channel and return line, while the EIR notes that the brine conveyance facilities may need to be replaced or relocated in places to accommodate levee construction, shoreline protection features in these areas are evaluated at a programmatic level of detail in the EIR, and specific impacts related to relocation of this infrastructure (e.g., where the channel and return line would be relocated) are not yet known. Appendix INFRA identifies whether infrastructure and other encroachments at and near the Project site would be protected in place or would require changes, and whether such changes are evaluated at a project or program level of detail. Although Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*, addresses impacts related to utility construction and relocation as part of the Project to the extent possible. The need for supplemental CEQA documentation would be evaluated once additional design details are developed as discussed in greater detail in Section 1.2.5, Program–Project EIR and Supplemental CEQA.

Comment Cargill-4

"b. Cargill must maintain access to, and operation of the *Cargill RWC Return Line* throughout the project. If relocation of the *Cargill RWC Return Line* becomes necessary, the DEIR should describe the proposed process for relocation and include measures to minimize operational disruptions. Additionally, the EIR should specify how Cargill will be compensated for any unavoidable disruption related to relocating the *Cargill RWC Return Line*.

c. The *Brine Channel* is also essential for Cargill's operations, as it facilitates the movement of brine across the facility's various ponds. The DEIR proposes acquiring portions of the *Brine Channel* to a construct a levee. Consequently, the project must include plans to replace any sections of the *Brine Channel* that are acquired, and a description of these plans must be described in the EIR.

> d. There is an existing water line that runs from the road on the south side of the PG&E Ravenswood substation to the donut on the western edge of Pond R2. If relocation of this water line is required, the EIR should outline the proposed process for relocation, including measures to minimize disruption to operations. [Water line from "C" on Figure 2-17 to R2 Donut]"

Response Cargill-4

This comment has been acknowledged. The Draft EIR evaluates physical environmental impacts related to utilities and public services in Section 3.17. Actions related to Cargill's RWC Return line, Brine Channel and existing water line will be coordinated with Cargill, OneShoreline, and the cities.

We have located the referenced Cargill facilities on design plans and would appreciate further coordination with Cargill to verify their infrastructure locations, operation, and maintenance requirements, and what will be necessary to protect in place or relocate through design. Details requested by Cargill regarding treatment of the Return Line, Brine Channel, and water line would be resolved prior to Project implementation. As discussed in Draft EIR Section 1.2.5, Project design changes may occur as design progresses based on factors such as funding and land acquisition. Once the characteristics of future actions for the disposition of the facilities is known, the SAFER Bay Project Team will determine whether supplemental CEQA is required pursuant to CEQA Guidelines sections 15162 through 15164. Please also refer to the **Global Response on Future Project Development** in Section 3.1.2 of this document.

Comment Cargill-5

> "e. The *Cargill RWC Return Line* should be shown in the project maps (Cargill has enclosed of map with these comments)."

Response Cargill-5

Figures 2-13, 2-17, 2-20, 2-22, 2-24, and 2-25 have been revised to show Cargill's Redwood City Return Line (refer to Chapter 4 of this document, *Draft EIR Revisions)*.

Comment Cargill-6

> **"3. Proposed Process for Acquiring Cargill Property for the Project**
>
> The EIR should outline the process for acquiring any property required for the project and provide details on how Cargill will be compensated for such land acquisitions. In addition, the EIR should specify any necessary investments or replacements for Cargill's infrastructure that may be affected or disrupted by the project."

Response Cargill-6

The Draft EIR evaluates the environmental effects of the SAFER Bay Project, including the location and design of proposed levees and shoreline protection features (see Chapter 2, *Project Description*). The EIR does not impose property dedications, determine compensation, or resolve property acquisition mechanisms. To the extent this comment raises constitutional property-rights claims, those are legal matters to be resolved outside the EIR process, as they are outside the scope of CEQA. The EIR does not adjudicate property rights or impose dedication requirements. Any property interests necessary for Project implementation will be addressed through separate negotiations, agreements, or other lawful acquisition

processes. This comment does not identify a deficiency in the environmental analysis, and no changes to impact conclusions are required.

Comment Cargill-7

"4. Clarification of Ownership of Cargill Property

The DEIR incorrectly refers to Cargill as the "Cargill Corporation" on pages S-2, 2-3, 3.11-4, 3.11-5, and 3.11-14. This should be revised in the EIR to "Cargill, Incorporated."

Response Cargill-7

The EIR has been revised to correct "Cargill Corporation" to "Cargill, Incorporated." Refer to Chapter 4 of this document, *Draft EIR Revisions*.

3.3.7 Ravenswood Shores Business District (RSBD)

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

Comment RSBD-1

"The Ravenswood Shores Business District ("RSBD") is a California limited liability company comprised of the majority of the landowners and businesses located in the 100-acre Ravenswood Business District ("RBD") area of East Palo Alto. Membership includes about seventeen corporate and non-profit property owners and was established to speak with one voice for the benefit of our membership. In additions to small businesses and local not for profits, our members also include some of the major landowners in the RBD whose properties will be impacted by the implementation of the SAFER Bay project in both the south of Bay Road and north of Bay Road reaches.

The RSBD appreciates the years of effort that have gone into crafting the SAFER Bay project. Planning for current flooding issues and sea level rise is critically important and the SAFER Bay project is an excellent blueprint to begin to address this challenge. However, the devil is always in the details, and we have some concerns that we hope can be addressed. Specifically, these include."

Response RSBD-1

Your overall support of the SAFER Bay Project has been acknowledged.

Comment RSBD-2

"South of Bay Road - Section S-2 - Proposed major development Projects south of Bay Road include fill of these sites to elevations of approximately 16 feet to 17 feet (NAV88). It is not clear how the JPA proposes that these sites will then merge with the new levee.

North of Bay Road - Section P-1 - Proposed major development Projects north of Bay Road also include fill these sites to elevations of approximately 16 feet to 17 feet (NAV88). It is not clear how the JPA proposes that these sites will then merge with the new levee."

Response RSBD-2

Any proposed development that includes placement of fill adjacent to, or in direct contact with, the proposed levee would be required to undergo review and approval by the local jurisdiction, the City of East Palo Alto, through its established development and permitting processes, including completion of review under CEQA. This review ensures that any private site-raising or grading plans are evaluated for compatibility with the levee's design, structural integrity, and Federal Emergency Management Agency flood-protection requirements. As part of this process, Project applicants will be responsible for demonstrating that their proposed finished grades, transitions, and grading interfaces do not compromise the levee system and that all tie-ins provide continuous flood protection. Coordination between the City of East Palo Alto and private developers will occur during final design and permitting to ensure that any adjacent fill is constructed in a manner that is consistent with public safety standards and does not adversely affect the function or stability of the proposed levee.

Comment RSBD-3

> "South of Bay Road - Section S-2 - The proposed levee section includes excavation of "degrade to 2 feet below adjacent grade". - It is unclear from the site plans where the levee is located in relationship to property lines of these south of Bay properties and if this grading may impact contaminated soil on property currently under an approved.
>
> North of Bay Road - Section P-1 - Again, the proposed levee section includes excavation of "degrade to 2 feet below adjacent grade" and also includes what appears to be an excavation "wedge" down an additional 8 to 10 feet- It is unclear from the site plans where the levee is located in relationship to property lines of these north of Bay properties and if this grading may impact areas of contaminated soil. Clearly any levee development needs to avoid, to the degree reasonably practical, areas of contamination."

Response RSBD-3

As part of preliminary engineering, the levee alignment and grading extents have been deliberately sited to avoid all parcels with known contamination or existing regulatory oversight. Based on currently available environmental data, the proposed levee footprint and excavation limits do not encroach on the identified contaminated areas. The Project also recognizes that unknown or previously uncharacterized contamination may exist in areas adjacent to the regulated parcels, particularly where historic fill or undocumented past land uses may have occurred. Because of this, further site-specific geotechnical and environmental investigation will be conducted during the final design phase to verify actual subsurface conditions within the planned excavation and foundation improvement zones. However, the Draft EIR analysis conservatively assumes that work in any reach could encounter contaminated material and consequently identifies the need for Mitigation Measures HAZ-1 (Health and Safety Plan), HAZ-2 (Soil Management Plan), and HYD-1b (Groundwater Handling Requirements). With implementation of the identified mitigation measures, the Draft EIR concluded that impacts associated with encountering contaminated soil or groundwater would be less than significant with mitigation.

Comment RSBD-4

> "North of Bay Road - Much of the area north of Bay Road relies on a storm drainage system which drains directly to the Bay. This storm drainage will become ineffective with the construction of the

levee. The development and implementation of a storm drainage master plan for the area north of Bay Road, must be an element of the project development and mitigation measure"

Response RSBD-4

Draft EIR Impact HYD-3 discusses the elimination of the eastern gravity outfalls north of Bay Road, which would be eliminated by the Project. The Draft EIR includes Mitigation Measure HYD-2a to address the potential effects of the Project on stormwater drainage due to the elimination of gravity outfalls north of Bay Road.

Comment RSBD-5

"North of Bay Road - Project Alternatives - The RSBD has suggested as an alternative the current placement of levee, an alignment which follows the Bay Trail. This alternative has been rejected noting a concern regarding the encroachment and impacts on existing wetlands. However, it appears that the current proposed alignment equally impacts these wetland and critical habitat. As such, we would suggest this alternative needs to continue to be considered."

Response RSBD-5

The comment incorrectly asserts that the proposed alignment would equally impact wetlands and critical habitat as the referenced alignment following the existing Bay Trail (refer to Figures 3.4-2c and 3.4-2d in Section 3.4 of Draft EIR Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*). The referenced alignment following the Bay Trail was analyzed and found to have more impacts on tidal salt marsh than the proposed alignment. Moreover, placing the levee on the existing Bay Trail would disconnect tidal action from the current area of tidal marsh located landward of the Bay Trail, thereby affecting the ecological functions, including impacts on suitable habitat for the federal and state-listed as endangered California Ridgway's rail.

3.3.8 Sycamore Real Estate Investment LLC (Sycamore)

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

Comment Sycamore-1

"Sycamore is the owner of approximately 52 acres in the City of East Palo Alto ("City") situated along the Bay. Sycamore has a heightened interest in the SAFER Bay Project as the proposed shoreline protection alignment crosses a significant portion of its property.

As a Bayfront property owner with a longstanding commitment to the City of East Palo Alto, Sycamore is well aware of the need to address sea level rise and flood risk and has undertaken evaluation of site-specific shoreline protection designs for future development on its site. While Sycamore's specific design varies from what is described in the DEIR, Sycamore is aligned with the project objectives and supports including protection on portions of its property, although with modifications that reflect site-specific conditions and engineering considerations. We recognize that the Draft EIR has been prepared at a program level, which is appropriate at this stage of planning and

affords the flexibility contemplated by CEQA for further refinement as individual shoreline projects are proposed."

Response Sycamore-1

This comment has been acknowledged. As described throughout the Draft EIR (e.g., Section 2.4.1) those Project components for which 30-percent design is available are generally evaluated at a project level of detail; those Project components for which conceptual (10-percent) design information is available are generally evaluated at a program level of detail.

Comment Sycamore-2

"Sycamore's other primary comment relates to the potential takings implications of requiring the dedication of its land for a structure that is, largely, for the benefit of the general public. As described below, the proposed earthen levee is not needed for Sycamore's proposed EPA Waterfront Project since the project is "self-mitigating" by raising the grade and including other shoreline protection that meets the objectives of the SAFER Bay Project. Further, large portions of the levee proposed on Sycamore's property only provide protection for neighboring communities and do not relate to an impact of development. We request that the Draft EIR clarify any dedication requirements and acknowledge that a takings would occur if there is no "nexus" to a development project.

We appreciate the substantial effort undertaken by the San Francisquito Creek Joint Powers Authority ("JPA"), the City, and their consultants in preparing the Draft EIR, and offers the following comments to support implementation of the SAFER Bay Project DEIR as a programmatic framework."

Response Sycamore-2

The Draft EIR evaluates the environmental effects of the SAFER Bay Project, including the location and design of proposed levees and shoreline protection features (see Chapter 2, *Project Description*). The EIR does not impose property dedications, determine compensation, or resolve property acquisition mechanisms. To the extent this comment raises constitutional property-rights claims, those are legal matters to be resolved outside the EIR process, as they are outside the scope of CEQA. The EIR analyzes the environmental effects of the Project as proposed and does not adjudicate property rights or impose dedication requirements. Any property interests necessary for Project implementation will be addressed through separate negotiations, agreements, or other lawful acquisition processes. This comment does not identify a deficiency in the environmental analysis, and no changes to impact conclusions are required.

Comment Sycamore-3

"We appreciate that the Draft EIR conducted a "program" level analysis for portions of the SAFER Bay Project, including for the North of Bay Road reach that includes Sycamore's property. We agree that a program level of review is appropriate as it reflects the fact that the SAFER Bay Project remains in the early stages of design and that it crosses over private property and through multiple jurisdictions, so it may require further refinements and changes.

As described in the Draft EIR, the SAFER Bay Project consists of a series of structures and engineered and natural features that will extend through several jurisdictions and require approvals by multiple agencies, depending on the specific reach. We understand that while the JPA will be certifying the EIR, each city, including the City of East Palo Alto, will be primarily responsible for approving the shoreline protection through their jurisdiction. The CEQA Guidelines encourage the

preparation of a program EIR when there are a series of actions that can be characterized as one large project and are related due to factors like geography or logical parts of contemplated actions. (CEQA Guidelines § 15168(a).) One advantage of a programmatic approach is that it better allows consideration of broad policies and mitigation measures early on at a point when there is greater flexibility. (CEQA Guidelines § 15168(b).) That is, program EIRs are useful for analyzing connected actions at an early stage, before design details are known. Subsequently, when a specific project is proposed for a portion of the broader program, the program EIR can be used to approve the specific design, if the project is "within the scope" of the program EIR. If the subsequent project is not "within the scope," additional environmental review may be needed, but it is focused only on new effects not previously considered. (CEQA Guidelines § 15168(d).)(1)

We support the JPA's use of this type of CEQA document as it will allow flexibility as specific shoreline projects are proposed for approval. We encourage the JPA to clarify how this program EIR may be used to support the subsequent approval of portions of this broader program, including the concept of whether a project is "within the scope" of this EIR, and if not, how additional environmental review would be conducted. The SAFER Bay Project is critical to the future of the region, and we appreciate the JPA's recognition that the current 10% level of design is not sufficient for a "project" level review and that further refinement will be needed.

Against this backdrop, Sycamore has advanced the design of site-specific shoreline protection in the application that it has submitted for the EPA Waterfront Project. This incorporates robust shoreline protection measures, including both raising the grade of the entire project site and utilizing deep soil mixing, or DSM, along the perimeter. The approach has sought to minimize impacts on the wetlands and to achieve all the objectives of the SAFER Bay Project. We look forward to continuing to work collaboratively with the JPA and the City to implement its project in a way that can achieve Sycamore's goals for the EPA Waterfront Project and the objectives for the SAFER Bay Project identified in the DEIR."

[Comment Footnote:

(1) We note that even when there is project level review, CEQA does not constrain future changes, but rather it requires updated analysis of any changes, which is often accomplished through an Addendum.]

Response Sycamore-3

The comment requests that the SFCJPA clarify how the SAFER Bay EIR may be used to support future approval actions for the Project. Draft EIR Section 1.2, Introduction, indicates that the document includes both project-level and program-level analyses and "in part serves as a program EIR pursuant to CEQA Guidelines Section 15168," with future, reach-specific refinements evaluated under CEQA Guidelines section 15162–15164. CEQA Guidelines section 15168(c)(2) sets forth guidance for determining whether a later activity is within the scope of a program EIR, indicating that this "is a factual question that the lead agency determines based on substantial evidence in the record," and identifying factors that an agency may consider (e.g., consistency of the later activity with the type of allowable land use). The mitigation measures adopted for the broader EIR apply to later activities in the program. The City of East Palo Alto, as a member of the SAFER Bay Project Team, can determine whether a later activity is within the scope of the SAFER Bay EIR and the appropriate supplemental CEQA document required pursuant to CEQA requirements (i.e., whether an EIR Addendum is sufficient or whether a Supplemental or Subsequent EIR is required if there are new significant effects or a substantial increase in the severity of a previously identified significant impact). Please also refer to the **Global Response on Project and Program Analysis** Section 3.1.1 of this document for additional information.

Comment Sycamore-4

"The Draft EIR suggests that, where the SAFER Bay Project levee is proposed on private land, landowners will be required to dedicate land and provide easements. However, constitutional takings law requires that there is a "nexus" and "rough proportionality" between the impact of a project and the dedication being required. If such constitutional tests are not met, any dedication requirement would be a regulatory taking and just compensation must be paid. For reasons described below, we do not believe these standards can be met if dedication of land for an earthen levee is required for the EPA Waterfront Project, rather than the approach proposed as part of the EPA Waterfront Project (raising of the grade with a DSM structure and berms along the perimeter). There is also no nexus where the levee is proposed on portions of Sycamore's property along the neighboring property line, as there is no connection to a development project.

The SAFER Bay Project proposes a levee that would bisect much of Sycamore's property. The levee structure itself would take up approximately 5 acres of land. But the levee has a greater impact since areas within 50 feet of the levee are not developable. With that buffer included, the area directly impacted by the levee increases to nearly 8 acres. Further, the proposed alignment of the levee will effectively turn land on the Bay side into tidal marshes initially, and then eventually into the Bay itself. Including the land to the east of the levee increases the total area directly impacted to approximately 19.5 acres."

Response Sycamore-4

The purpose of CEQA is to compel lead agencies like the SFCJPA in considering the environmental consequences of their actions prior to approving a project. Accordingly, the Draft EIR evaluates the impacts of implementing the Project on the physical environment. The EIR does not impose dedication requirements, determine compensation, or resolve property acquisition mechanisms. To the extent this comment raises constitutional property-rights claims, those are legal matters to be resolved outside the EIR process, as they are outside the scope of CEQA. Any property interests necessary for Project implementation will be addressed through separate negotiations, agreements, or other lawful acquisition processes. This comment does not identify a deficiency in the environmental analysis, and no changes to the environmental analysis are required.

Comment Sycamore-5

"We note that the Notice of Preparation suggested an alternative alignment along the existing levee where the Bay Trail is located, which would be entirely off Sycamore's property. As described in the alternatives analysis, the only reason that was rejected (and not actually studied) is that it would not meet the habitat enhancement objective. That is, the levee alignment is proposed on Sycamore's property not because it is necessary to protect the project or the broader community from sea level rise impacts, but rather to enhance habitat. Habitat enhancement is a laudable goal, but it is unrelated to impacts of the development project."

Response Sycamore-5

The commenter owns property along the North of Bay Road Reach (#6 on Draft EIR Figure 3.1-1). Chapter 4 of the Draft EIR explains the alternatives screening process and the reasons certain alignments were not advanced for detailed study. As described on Draft EIR page 4-38, the alignment suggested in this comment was rejected "because it would worsen impacts to sensitive biological resources and would be inconsistent with the Project's objective related to restoration (refer to Table 4-4)." The proposed levee

alignment was selected based on multiple Project objectives, including flood risk reduction, sea level rise adaptation, habitat restoration, constructability, and long-term resilience. The Project is a regional flood protection and habitat restoration project, not mitigation for private development. The alignment is based on engineering and environmental considerations evaluated under CEQA. The EIR adequately discloses the basis for the selected alignment.

Comment Sycamore-6

> "Sycamore's proposed EPA Waterfront Project incorporates robust shoreline protection measures, including both raising the grade of the entire Project site and utilizing DSM along the perimeter. While the purpose of the proposed earthen levee in the DEIR is to provide shoreline protection, because the EPA Waterfront Project addresses this same impact, the levee is not needed for the Project. Because the EPA Waterfront Project's shoreline protection could achieve the same outcome as the JPA.
>
> The DSM approach will avoid conflicts with the proposed development footprint. As shown in the Draft EIR's program-level levee cross-sections (Figure 2-11), an earthen levee would intrude into planned building areas on the 45-degree structural influence zone supporting those foundations. Based on standard geotechnical design constraints applicable to such embankments, that footprint would encroach into planned building areas or their associated structural setback zones.
>
> Finally, the portions of the levee proposed to extend north and east of the EPA Waterfront Project along the property line are not required to protect the Project and only provide broader benefits to the general public. That is, there is no nexus between the EPA Waterfront Project and portions of the levee that are designed to protect neighboring properties. Without such a nexus, any dedication requirement would be a taking."

Response Sycamore-6

The Draft EIR evaluates the proposed earthen levee design at the program and project levels, as applicable (see Chapter 2). The EIR does not require that private development projects implement or dedicate land for a particular shoreline protection method. The SAFER Bay Project is an independent public flood protection project. Whether a private project proposes alternative shoreline protection measures does not eliminate the need for regional flood risk reduction infrastructure designed to protect multiple properties and communities.

Refer to **Response RSBD-2** regarding the commenter's suggestion to raise the grade of their site.

As with prior comments, to the extent this comment raises constitutional property-rights claims, those are legal matters to be resolved outside the EIR process, as they are outside the scope of the CEQA process. The EIR analyzes the environmental effects of the Project as proposed and does not adjudicate property rights or impose dedication requirements. No changes to the environmental analysis are required.

Comment Sycamore-7

> "We appreciate that the JPA prepared the DEIR at a programmatic level, including for the North of Bay Road reach, as that approach acknowledges that the design is not yet final, which allows for flexibility. Specifically, we believe this approach will allow refinements as projects come forward, such as using DSM for the EPA Waterfront Project. For purposes of clarity, we recommend that the Draft EIR discuss how, under CEQA Guideline section 15168, a program EIR can be used for

approval of later, project-specific approvals, including that the design may continue to evolve, and what the environmental review will look like when future projects both meet and do not meet the "within the scope" test.

While we appreciate the program approach to the CEQA analysis, we are concerned with the DEIR's description about future dedication and request that the document explain when dedication will be required.

We look forward to continuing to work with the JPA and the City of East Palo Alto to ensuring that both the EPA Waterfront Project and broader community are protected from current flooding and future sea level rise impacts. The SAFER Bay Project is critical for the region and we look forward to collaborating on an approach that both protects the community and is consistent with private development."

Response Sycamore-7

The Draft EIR is prepared in part as a program EIR consistent with CEQA Guidelines section 15168. As described in Section 1.2.5, future activities will be evaluated to determine whether they are within the scope of this EIR or require additional CEQA review pursuant to CEQA Guidelines sections 15162–15164. Future refinements to the SAFER Bay Project will be evaluated to determine whether they are consistent with the scope of analysis in this EIR and the potential to result in new or substantially more adverse significant impacts.

The EIR does not determine when or whether dedication of property would be required. Property acquisition and related legal matters are outside the scope of CEQA review.

3.4 Responses to Individual Comments

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

3.4.1 Anonymous #1

Comment Anonymous1-1

"We need more meetings like these and more information for the communities."

Response Anonymous1-1

This comment and the request for informational meetings has been acknowledged.

3.4.2 Anonymous #2

Comment Anonymous2-1

"84 is primarily a commuter/pass through route, how will major employers be required to update their TDM plans for 6+ years, to reduce traffic impacts."

Response Anonymous2-1

The Draft EIR evaluates construction-related traffic and transportation impacts, including vehicle trips and roadway effects during construction (see Section 3.16). The Project does not impose transportation demand management requirements on private employers. No changes to the environmental analysis are required.

3.4.3 Anonymous #3

Comment Anonymous3-1

> "Will there be a process of adding California native vegetation + shrubs + trees to assist with air quality."

Response Anonymous3-1

As indicated in Section 2.4.2 in Chapter 2, *Project Description*, where levees are proposed, transition-zone (T-zone) habitat would be created on the bayward side of the levee slopes. T-zone creation would include topsoil preparation and revegetation with native species to restore high-quality, high-tide refugia along the edge of tidal marsh habitat. Trees generally cannot be planted on 3:1 earthen levees because their roots can create seepage paths and weaken the compacted soil, increasing the risk of internal erosion or failure. In addition, tree growth and potential uprooting during storms can damage the levee surface and compromise its structural integrity.

Comment Anonymous3-2

> "Second how or in what way will the look of the levees be addressed."

Response Anonymous3-2

As indicated in **Response Anonymous 3-1**, levees would be revegetated with native species. Additionally, Mitigation Measure AES-1 (Floodwall Design and Landscaping Treatment), discussed in Section 3.2, *Aesthetics*, would be implemented to reduce the effects to visual character and quality associated with installation of levees and floodwalls. Mitigation Measure AES-1 requires incorporation of design features including use of low-glare or integral color finishes; incorporation of surface texturing, panel modulation, or similar treatments to break up large blank faces; and installation of native landscaping or other screening on the landward side of levees, where feasible and compatible with maintenance needs to reduce the visual contrast created by the floodwalls.

3.4.4 Anonymous #4

Comment Anonymous4-1

> "Let's assume that the water passes over the levees, and on the way back it carries less force and will not be able to return. What will happen to the water that cannot return?"

Response Anonymous4-1

The levee would reduce the risk of flooding in East Palo Alto and other shoreline areas by preventing bay waters from encroaching inland during storm events. As discussed in Draft EIR Chapter 2, *Project Description*, the Project would protect or replace drainage infrastructure that conveys water from inland

of the levee to San Francisco Bay. As discussed in Impact HYD-3, the Project would also include additional stormwater conveyance infrastructure designed to prevent the Project from worsening flooding landward of the levee. While unlikely, if a coastal flood were to overtop the levees, water would then be conveyed back to San Francisco Bay by the stormwater infrastructure along the shoreline.

3.4.5 Alberto

Comment Alberto-1

"Please do not pick the developer who made the Belle Haven Community Center."

Response Alberto-1

This comment has been acknowledged. The developer for the Project has not been chosen yet.

3.4.6 Guillermina Moreno Chipres

Comment Chipres-1

"I am very interested in this information because I live in a flood prone area."

Response Chipres-1

This comment has been acknowledged.

3.4.7 Steven Combs

Comment Combs-1

"How many inches has the Bay risen in the last 10 years?"

Response Combs-1

Sea level rise around San Francisco Bay varies somewhat due to differences in local subsidence. The relative sea level rise trend at the closest long-term bay water level gage is estimated to be 2.74 millimeters (mm) per year between 1974 and 2025.[53] Therefore, the estimated bay rise in the last 10 years is 27.4 mm, which is equivalent to 1.08 inches.

Comment Combs-2

"In Menlo Park most of the Bay is bordered by commercial property. What are the property owners responsibility?"

Response Combs-2

Adjoining private property owners would not be directly responsible for maintenance of flood protection or trail infrastructure, although indirect participation is achieved through the collection of various taxes and allocation of maintenance and operation funding through the annual budget development process.

[53] NOAA (National Oceanic and Atmospheric Administration), 2026. "Relative Sea Level Trend 9414523 Redwood City, California." Available online at https://tidesandcurrents.noaa.gov/sltrends/sltrends_station.shtml?id=9414523.

Responsibilities for maintenance at trail access points would be outlined in negotiated rights of entry to make said access points.

Comment Combs-3

"What are the proposed heights of the levees along Hwy 84?"

Response Combs-3

Segments of four reaches border State Route (SR) 84: Dumbarton Approach, Substation and Marsh Restoration, Tech Campus, and Bayfront Expressway. Table 2-3 in Chapter 2, *Project Description* (page 2-18), indicates the existing grade within each reach, the proposed elevation of levee heights (and floodwalls, where proposed) within each reach, and the difference between the existing grade and with Project grade. The difference in elevation between existing and proposed grade varies within each reach. For example, for the segment of the Dumbarton Approach Reach parallel to and south of SR 84, the existing grade ranges from 7.5 to 8.3 feet, the top of the levee is 14.6 feet, and the top of the floodwall is 18.4 feet. Note that the roadbed of SR 84 parallel to this segment is 9 or more feet in elevation. Table 3.2-4 in Section 3.2, *Aesthetics*, (page 3.2-17) also provides this information but in the context of viewing locations, including four locations along SR 84.

3.4.8 Sonia Escobedo

Comment Escobedo-1

"As temperatures rise causing sea levels to rise, will the levee need to be modified in the future to be able to adapt to these changes?"

Response Escobedo-1

Refer to the following text from Draft EIR page 2-5 in Chapter 2, *Project Description*, regarding the Project's design:

> 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 an additional 3.5 feet of elevation to account for anticipated sea level rise by 2100 as well as other applicable FEMA design criteria (e.g., for the evaluation of settlement and structural stability). 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 June 2023 *Planning Policy Guidance*.

As described in the Draft EIR (e.g., page 4-16), with proper annual maintenance and augmented with additional material as needed, earthen levees are more adaptive to climate change and can persist without need of wholesale replacement, unlike floodwalls and levee/floodwall hybrids (due to the susceptibility of steel to corrosion). For this reason, the Project favors levees over floodwalls and levee/floodwall hybrids.

3.4.9 Alberto Tinajero Garcia

Comment Garcia-1

"They present to us with a project, and then when they built it, they changed it. That happened to us at the Senior Center. That's worrying."

Response Garcia-1

If the Project changes from what was originally presented, the SAFER Bay Project Team will review the changes and complete any additional environmental review required under CEQA. As stated on Draft EIR page 2-5:

> Changes may occur to the program-level components described and evaluated as design progresses due to factors such as funding, land acquisition, permitting requirements, site-specific physical constraints (e.g., utilities, geotechnical conditions, or right-of-way access), or other modifications. For segments within the SR 84 right-of-way, the California Department of Transportation (Caltrans) may initiate changes. Caltrans may decide to elevate the approach to the Dumbarton Bridge, or the City of East Palo Alto may elevate the segment of Bay Road between the Cooley Landing Substation and Cooley Landing. The SAFER Bay Project Team will review changes to the Project and conduct supplemental evaluations pursuant to the California Environmental Quality Act as warranted.

3.4.10 Diana Gomez-Ochoa

Comment Gomez-Ochoa-1

"An increase in dust from construction may worsen asthma rates for children in EPA who already are vulnerable to asthma attacks. How will dust be mitigated around schools and public parks to prevent exacerbating health impacts for those existing respiratory conditions?"

Response Gomez-Ochoa-1

The SAFER Bay Project Team would require contractors to implement Mitigation Measure AIR-1, Best Management Practices for Construction-Related Fugitive Dust Emissions (Draft EIR page 3.3-27 in Section 3.3, *Air Quality*), during activities involving soil disturbance, grading, and material hauling to reduce dust. With implementation of this measure, construction emissions would not substantially contribute to existing regional air quality violations, and the impact would be less than significant.

3.4.11 Maria Gonzalez

Comment Gonzalez-1

"I'm worried about the traffic because I live on a dead-end street and the only exit and entrance is through University. This will cause a lot of chaos. I would like you to consider the traffic hours and try to keep the passage clear during those times."

Response Gonzales-1

As indicated in Draft EIR Section 2.6.2, *Construction Work Hours*, construction would generally occur between 8:00 a.m. and 5:00 p.m., Monday through Saturday. As indicated in Draft EIR Section 2.6.3,

Staging, Workforce, and Additional Construction Details, construction workers and vehicles would access the sites via major roadways such as United States Route 101 (U.S. 101), SR 84, Willow Road (SR 114), and University Avenue (SR 109), connecting to smaller adjacent roads such as Bay Road, Clark Avenue, Weeks Street, Donohoe Street, O'Connor Street, Purdue Avenue, Fordham Street, Marsh Road, and a privately owned railroad/pipeline access road. Specific construction access routes will be prepared as design progresses. Additionally, construction within all Project reaches would be subject to Mitigation Measure TRA-1: Implement Traffic Control Plan, which includes preparation of a traffic control plan that would (among other things) address potential traffic conditions that could conflict with level of services policies by directing traffic outside of peak hours where feasible, potential access conflicts with alternative transportation facilities, and potential impacts on emergency response access.

3.4.12 Danita Goodwin

Comment Goodwin-1

"What if any financial impact will this project have on the residents?" [The commenter is a resident of Menlo Park.]

Response Goodwin-1

The Draft EIR analyzes the Project's effects on the physical environment. Economic or financial effects on residents are not considered environmental impacts under CEQA unless they result in physical changes to the environment. Funding and financing mechanisms will be addressed separately during the implementation process.

3.4.13 John Harville

Comment Harville-1

"What hours would the project will be done?"

Response Harville-1

The following text from Draft EIR page 2-59 in Chapter 2, *Project Description*, identifies the Project's Construction Work Hours: "Construction would generally occur between 8:00 a.m. and 5:00 p.m., Monday through Saturday."

3.4.14 Jerry Hearn

Comment Hearn-1

"Take a look on page 80, figure 2-9. I think the caption under View A should read: Drainage channel west of Bay Trail facing northwest."

Response Hearn-1

The comment is correct. In response to this comment, Figure 2-9 has been revised to reflect that the drainage channel shown in the photo is west of the Bay Trail (refer to Chapter 4 of this document, *Draft EIR Revisions*). This change does not alter the evaluation or findings in the Draft EIR.

3.4.15 Eduardo L. Hernandez

Comment Hernandez-1

"Please protect the bay and animals while building the levees."

Response Hernandez-1

The EIR recognizes that levee construction could potentially affect biological resources, including special-status plants and wildlife, wetlands, and bay-associated habitats. As described in Section 3.4, *Biological Resources*, the Project includes several mitigation measures to avoid, minimize, or otherwise reduce impacts on biological resources during construction and ongoing maintenance. These measures include environmental training for construction crews; preconstruction surveys; seasonal work restrictions; establishment of protective buffers and exclusion areas around sensitive species and nesting sites; measures to protect fish and aquatic resources; and habitat restoration and monitoring requirements. With implementation of these mitigation measures, impacts on the bay and associated wildlife would be reduced to less-than-significant levels. Refer to Section 3.4, *Biological Resources*, for a detailed discussion of the impact analysis and required mitigation measures.

Comment Hernandez-2

"Please protect our trails."

Response Hernandez-2

The following text from Draft EIR page 2-3 in Chapter 2, *Project Description*, acknowledges the Project's Purpose and Objectives which includes: "Expand opportunities for recreation and community connectivity in collaboration with the Bay Trail Program and efforts to enhance local trails." The following text from Draft EIR page 2-14 in Chapter 2, *Project Description*, acknowledges the Project's Proposed Changes to Recreation Features:

> The Project overlaps with segments of the Bay Trail and other trails and includes improvements to shoreline access. **Figure 2-5** shows the location of existing trails and other recreation facilities near the Project site in relation to the Project alignment (upper half) and proposed improvements to trails (lower half). Where the Bay Trail would be replaced or extended, the segments would incorporate design standards adopted for the Bay Trail. By elevating shoreline trails, the Project would also reduce the 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 (specific locations to be determined in future detailed designs and in coordination with stakeholders); and would be designed in compliance with the Americans with Disabilities Act (ADA).

Comment Hernandez-3

"Please store soil."

Response Hernandez-3

The SAFER Bay Project Team agrees with this comment. A large volume of suitable fill material will be needed to construct the flood protection levees. Complete funding to begin construction for the Project

has not yet been identified; consequently, it is challenging to allocate the space and resources needed to import and stockpile fill material. The City of East Palo Alto is engaging in discussions with property owners (e.g., within the Ravenswood Shores Business District) on soil storage for the SAFER Bay Project that can meet environmental and geotechnical criteria. None has been confirmed to date.

3.4.16 Inez

Comment Inez-1

"Resolution to flooding on the streets (Hamilton) sign needed - street sweepers."

Response Inez-1

The comment regarding street sweeping and signage related to flooding on Hamilton Street pertains to local roadway maintenance and operations and is not related to content in the EIR, which addresses the Project's effects on the physical environment.

3.4.17 Sharon Jenkins

Comment Jenkins-1

"I believe this is a great plan and I hope it starts sooner than later."

Response Jenkins-1

Your support has been acknowledged.

3.4.18 Evelia Jimenez

Comment Jimenez-1

"I live in Bay Oak Apts and the city is giving us tickets on a daily basis. They have painted a red zone, they have painted a red zone, they want to install parking meters and charge for parking. We don't want that. There used to be a vacant lot without a red zone. But now they repainted a red zone even though nothing is there. This is just to be able to fine us. That's not right."

Response Jimenez-1

The comment regarding signage and parking meters is not related to content in the EIR, which addresses the Project's effects on the physical environment.

3.4.19 Robert Jones

Comment Jones-1

"Evacuation time from the time water crest the levee, what system will be in place once project is completed—if at all!"

Response Jones-1

The Project will result in substantially increased flood risk protection compared to the current situation. As indicated in Draft EIR Section 2.4.1, *Proposed Shoreline Protection, Habitat Improvement, and Recreation Features*, the Project's flood protection features are designed to meet Federal Emergency

Management Agency (FEMA) coastal accreditation for the existing 100-year flood event (meaning that the levees will not overtop during that magnitude of flood event) and with a margin of safety that accounts for 3.5 feet of increased bay water levels associated with sea level rise. For reference, Table 2-3 (Draft EIR page 2-18) lists existing elevations and proposed typical levee crest elevations by reach. Flooding emergencies as a result of tide surges will be greatly reduced as a result of the SAFER Bay Project, as would the need for emergency evacuations triggered by crest exceedance.

San Mateo County uses evacuation zones and all residents should be prepared for emergencies, including earthquake, fire, and flooding. Refer to https://www.smcgov.org/dem/genasys-zonehaven.

Comment Jones-2

"How will the habitat improvements improve the flood project, residential homes along the levees?"

Response Jones-2

The primary flood protection for residential areas is provided by the shoreline protection features, which are designed to meet applicable FEMA coastal flood protection requirements. The habitat and marsh restoration components of the Project are intended to improve ecological conditions, including habitat for animals and plants that are native to the area. Although these components are integrated into the overall Project design, the level of flood protection for homes is provided by the engineered shoreline protection features.

3.4.20 Julia

Comment Julia-1

"How to evacuate when there is a flood"

Response Julia-1

Please refer to **Response Jones-1**.

3.4.21 Christopher Kao

Comment Kao-1

"I would like to see Pond R3 restored back to marshland after the Bayfront Expressway reach is completed."

Response Kao-1

As indicated in the Draft EIR (e.g., page 2-10), Pond R3 would be enhanced to support western snowy plover habitat through implementation of the Western Snowy Plover Habitat Substrate and Predator Deterrent Enhancement Plan (see Figure 2-4b). The Project does not propose restoration of Pond R3 to tidal marsh; rather, habitat enhancements in Pond R3 are intended to improve conditions for western snowy plover consistent with Project objectives as well as discussions with South Bay Salt Ponds Restoration Project and regulatory agency representatives.

Comment Kao-2

"I would like to see the westernmost reach include a trail, aligning with Redwood City Bay Trail improvements; draft EIR did not specify whether that reach will have a trail."

Response Kao-2

The SAFER Bay Project Team understands that this area is a trail gap. This area will be evaluated by OneShoreline as part of their Regional Shoreline Adaptation Plan. For more information, see the **Global Response on Future Project Development** in Section 3.1.2 of this document.

Comment Kao-3

"Draft EIR is missing some projects; junk auto yard is zoned to be a park from Ravenswood Business District specific plan. There is also a proposed development at 2020 Bay Road."

Response Kao-3

Although the Infinity Auto Salvage site is designated as a Public Park under the Ravenswood Business District Specific Plan, there is no active or reasonably foreseeable development proposal for that site at this time; therefore, it was not included in the cumulative projects list in Section 3.1 of the Draft EIR. With respect to the 2020 Bay Road Project, as noted in Table 3.1-2 (Draft EIR page 3.1-9), the City of East Palo Alto has indicated that the project is currently on hold, and there is no known timeline for resumption of processing or construction; accordingly, it was not included as a cumulative project.

Comment Kao-4

"Does all land and overflow become eligible to be filled in and developed?"

Response Kao-4

Areas on the landward side of the levee would be required to follow land use planning requirements in the cities of East Palo Alto and Menlo Park and other applicable state and federal laws pertaining to the protection of wetlands and waters of the United States and state, other sensitive natural communities, and threatened and endangered species. For example, the likelihood that areas landward of the levee containing wetlands would be developed is considered low because such areas are subject to the jurisdiction of multiple resource agencies.

3.4.22 Joey Lopez

Comment Lopez-1

"I work in East Palo Alto and it is super important to me that the residents of East Palo Alto are protected for generations to come, alongside their sources of energy. It is also extremely important to protect marshlands as buffers from floods."

Response Lopez-1

We acknowledge your support of the SAFER Bay Project. As described in Section 2.3.2 of the Project Description, 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 shoreline protection features,

along with habitat improvements that enhance shoreline ecosystems and recreational opportunities. This includes reducing the risk of flooding within the city of East Palo Alto and protecting critical infrastructure, such as the Cooley Landing Substation and Pacific Gas and Electric Company (PG&E) Ravenswood Substation, located along the proposed levee alignment.

3.4.23 Gwendolyn Poston

Comment Poston-1

> "My foremost concern is the quality and long-term integrity of construction. Flood-control infrastructure must be designed and built to withstand extreme weather events, seismic activity, and future climate impacts. History has shown—most notably during Hurricane Katrina—that failures in design, construction, or oversight can lead to catastrophic loss of property, environmental damage, and risk to human life. I urge the Authority to ensure that all projects meet or exceed the highest engineering, safety, and inspection standards, with full transparency and accountability."

Response Poston-1

The following text from Draft EIR page 2-5 in Chapter 2, *Project Description*, describes the Project's Shoreline Protection Features and design standards:

> 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 an additional 3.5 feet of elevation to account for anticipated sea level rise by 2100 as well as other applicable FEMA design criteria (e.g., for the evaluation of settlement and structural stability). 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 June 2023 Planning Policy Guidance.

Comment Poston-2

> "Equally important is ongoing maintenance. Flood protection systems are only as effective as their long-term upkeep. I would like clear information on maintenance responsibilities, funding mechanisms, inspection schedules, and contingency plans should structural weaknesses or failures be identified in the future."

Response Poston-2

The purpose of the EIR is to evaluate the effects of the Project on the physical environment. Most of the information requested in this comment is beyond the scope of the EIR. Draft EIR Section 2.7 describes proposed maintenance responsibilities and activities and states that "Member agencies [i.e., the cities of East Palo Alto and Menlo Park] would be responsible for conducting routine inspections of the shoreline protection facilities, operating flood gates, managing interior drainage, and maintaining the Bay Trail." Refer also to the **Global Response on Future Project Development** in Section 3.1.2 of this document.

Comment Poston-3

> "I am also deeply concerned about the financial impacts to residents if flooding persists or worsens. These include property damage, rising insurance premiums or loss of coverage, potential special

assessments or taxes, and reduced property values. Residents need assurance that these projects will meaningfully reduce flood risk rather than shift or exacerbate it."

Response Poston-3

Your concern about financial impacts from worsening floods is a foundational reason for the SAFER Bay Project. Refer to **Response Poston-1** regarding Project's design standards. The Project is designed to be accredited by FEMA, and in tandem with the SFCJPA's completed Reach 1 Project, both tidal and creek flood risks will be sufficiently reduced so that a request to FEMA can be made in a Conditional Letter of Map Revision. Once approved by FEMA, the need for flood insurance should no longer be required.

Comment Poston-4

"Additionally, standing or slow-moving water raises legitimate concerns about waterborne diseases and public health risks, particularly for nearby residents, children, seniors, and vulnerable populations. Clear mitigation and monitoring plans should be publicly available."

Response Poston-4

Waterborne illnesses, such as those spread by mosquitoes, are a concern when interior drainage is not adequately managed. The Project will require adequate interior drainage. Broader and longer-term public health issues associated with changes in vectors or diseases unrelated to the Project are outside the scope of the EIR.

Draft EIR Section 3.10 (beginning on page 3.10-1) evaluates the potential impacts of the Project on existing hazards and hazardous materials conditions in the Project area and evaluates the potential for the Project to result in impacts on people and the environment related to hazards, hazardous materials, and wildfire. Pursuant to mitigation measures identified in this section (as well as Section 3.11, *Hydrology and Water Quality*), the Project would implement health and safety, soil management, and stormwater pollution prevention plans, as well as groundwater handling requirements to protect public health and safety.

Comment Poston-5

"I am concerned about the potential damage to or loss of existing trails, which are vital community resources for recreation, transportation, and mental well-being. Any temporary or permanent trail impacts should be minimized, clearly communicated, and fully mitigated."

Response Poston-5

Improving recreational opportunities is a foundational aspect of the SAFER Bay Project. As described in Chapter 2, Section 2.6.4, during construction, portions of the Bay Trail within active work areas would be temporarily closed for the duration of construction in each reach, and access to certain destinations, including Cooley Landing Park and the Faber–Laumeister Trail, may be disrupted. Mitigation Measure TRA-1 (Draft EIR page 3.16-2) requires the SAFER Bay Project Team to develop traffic control plans that require identification of full and partial closures of trails and bicycle and pedestrian detour plans where applicable. Following construction, trail quality and access would largely be improved. Although approximately 1.8 miles of the Ravenswood Trail would be decommissioned and a 1,500-foot segment

seasonally closed to protect nesting seabirds, the Project also includes improvements to approximately 2.69 miles of existing trail and construction of approximately 2.11 miles of new trail.

Comment Poston-6

> "Finally, I ask that the Authority carefully consider the protection of wildlife habitats and native species. The creek and surrounding areas support important ecosystems that must not be irreversibly damaged in the name of flood control. Environmental protections should be proactive, not reactive. I respectfully request that these concerns be fully addressed as part of project planning, implementation, and long-term management, and that residents be meaningfully included in decision-making processes. Our safety, health, environment, and financial stability depend on it. Thank you for your consideration and for your service to our communities. Sincerely, Gwendolyn Poston"

Response Poston-6

Your comment supporting habitat-improving and restoring ecosystems is a foundational aspect of the SAFER Bay Project has been acknowledged. The EIR recognizes that levee construction could adversely affect biological resources, including special-status plants and wildlife, wetlands, and bay-associated habitats. As described in Section 3.4, Biological Resources, the Project includes several mitigation measures to avoid, minimize, or otherwise reduce impacts during construction and ongoing maintenance. These measures include environmental training for construction crews; preconstruction surveys; seasonal work restrictions; establishment of protective buffers and exclusion areas around sensitive species and nesting sites; measures to protect fish and aquatic resources; and habitat restoration and monitoring requirements.

The SAFER Bay Project Team will continue regular public outreach events to provide Project updates.

3.4.24 Guillermina Quiroz

Comment Guillermina1-1

> "I like it a lot. Very good."

Response Guillermina1-1

Your comment has been acknowledged.

Comment Guillermina2-1

> "Knowing the nature of the problem, we feel that there is still a long way to go, but time passes very quickly."

Response Guillermina2-1

Your comment has been acknowledged. For reference, Section 2.5 (beginning on Draft EIR page 2-56) presents information on phasing and implementation of the Project implementation.

3.4.25 Lavonne Robertson

Comment Robertson-1

> "I would like to know more about the flood zone."

Response Robertson-1

Draft EIR Section 3.11, *Hydrology and Water Quality*, discusses existing flooding and flood risk (p. 3.11-7), future flood risk (p. 3.11-10), and the Project's impacts on flooding (Impact HYD-3, p. 3.11-43 et seq.).

Comment Robertson-2

"I would also like to know how long the project would take."

Response Robertson-2

Once all approvals and funding are in place, construction is estimated to require 5 to 6 years. The following text from Draft EIR page 2-56 in Chapter 2, *Project Description*, describes the Project's Schedule: "Project construction would be implemented by member agencies who would determine the ultimate construction schedule. A preliminary construction schedule, presented in Table 2-4, has been developed for purposes of evaluation." The preliminary schedule indicates that construction would begin in 2029 and be completed in 2034.

3.4.26 Vicky Robledo

Comment Robledo1-1

"What will the height of these levees?"

Response Robledo1-1

The height of the levee would vary by reach. As shown in Table 2-3 in Chapter 2, *Project Description*, proposed levee elevations generally range from approximately 10 feet to approximately 21 feet North American Vertical Datum of 1988 (NAVD88), depending on location. Table 2-3 summarizes existing ground elevations and proposed top-of-levee elevations for each reach. The variation in target elevations across the different reaches is the result of several site-specific design factors evaluated during preliminary engineering. These factors influence the required crest height needed to achieve a consistent level of flood protection throughout the Project corridor. Key considerations include projected settlement of the flood protection structures, wind-wave run-up, and freeboard requirements. For example, target elevations increase in areas subject to greater wave generation and run-up potential. To see what the levees will look like, visit the completed levees along San Francisquito Creek from U.S. 101 to O'Connor Street in East Palo Alto and at the Baylands Athletic Center in Palo Alto, which were completed in 2019.

Comment Robledo2-1

"I'm in support of what can help our community. Stay safe. However, I do not want to see my taxes go up, nor do I want a wall that's tall enough that it blocks the view of the bay. We should look at options when it comes to who is hired and to look at ways to keep cost down. Utilize city and county engineers. Pay for additional contractors if you have in-house staff. Isn't that what they're paid for? Utilize employees to do whatever surveying, engineering etc. rather than to hire additional contractors."

Response Robledo2-1

The purpose of the EIR is to evaluate the Project's effects on the physical environment. Financing the Project and the effect of that financing on taxes is beyond the scope of the Draft EIR. The levee cannot

provide the flood protection needed without being raised and blocking some views of the Baylands from some locations. Those visual impacts are disclosed in Draft EIR Section 3.2, *Aesthetic Resources*. Executing large infrastructure projects such as this is typically done using non-government contractors due to the sheer size of the Project and required specialized engineering expertise.

3.4.27 James Rohr

Comment Rohr.J1-1

> "I would like funding to include asking PG&E + META to pay for the protection that will be needed for their property."

Response Rohr.J1-1

With respect to taxes, funding choices, and staffing/procurement, the purpose of the EIR is to evaluate the Project's effects on the physical environment; fiscal and hiring decisions are made by the implementing agencies outside the CEQA process and are not determinative of an EIR's adequacy. Agencies with discretionary approval over the Project take funding into consideration as part of the approval process.

Comment Rohr.J2-1

> "I believe Menlo Park should proceed with the Safer Bay Project, as it directly addresses the needs of residents living near the bay and aligns with the community's commitment to resilience against rising sea levels and coastal flooding. Given that Meta operates in the same high-risk zone, their involvement is critical to ensuring the project's success and they should supply any funds that are being withheld by the federal government due to their direct benefit from the project. This partnership not only reflects a shared responsibility for protecting the community but also underscores the importance of integrating corporate and municipal efforts to safeguard lives, infrastructure, and the region's future."

Response Rohr.J2-1

This comment has been acknowledged, although the purpose of the EIR is to evaluate the Project's effects on the physical environment, and the comment addresses Project financing.

3.4.28 Meredith Rohr

Comment Rohr.M-1

> "I am commenting as a Menlo Park resident and my comments are as follows: The City of Menlo Park should start looking for places to stockpile/store soil ASAP."

Response Rohr.M-1

The SAFER Bay Project Team generally agrees with this comment. A large volume of fill material would be needed to construct the flood protection levees. Sourcing this material is competitive given that other levee and pond restoration projects around San Francisco Bay that are in development or construction also require large amounts of fill material. Funding to begin construction for the Project has not yet been identified; consequently, allocating space and resources needed to import and stockpile fill material is challenging. The designers are using value engineering to identify alternative sources of levee fill that could reduce the amount of import required.

Comment Rohr.M-2

"Views and trail quality should be considered in the design. Glad to see that accessibility is included in the EIR."

Response Rohr.M-2

Section 3.2, *Aesthetics*, analyzes potential impacts of the Project on existing visual resources and scenic views, and Section 3.15, *Recreation*, evaluates potential impacts on existing recreational facilities and trail use within the study area.

Comment Rohr.M-3

"Managing traffic concerns in the area should be a priority."

Response Rohr.M-3

Section 3.16, *Transportation*, evaluates potential impacts of the Project on transportation resources and circulation. Mitigation Measure TRA-1 (Implement Traffic Control Plan) requires the Project proponent to ensure that contractors develop and implement traffic control plans for all reaches during construction. These plans are intended to manage construction-related traffic, maintain access, and minimize disruptions to the surrounding transportation network.

Comment Rohr.M-4

"To the extent possible, Meta, PG&E, and other impacted businesses should offer "work from home" option for workers during peak construction to reduce traffic congestion in residential areas."

Response Rohr.M-4

Work from home policies are outside the control of the SFCJPA and its member agencies. The Draft EIR concluded that transportation impacts related to construction-generated traffic would be less than significant with mitigation (refer to **Response Rohr.M-3** regarding Mitigation Measure TRA-1).

3.4.29 Miranda Sameron

Comment Sameron-1

"I want to learn more about flooding in my community."

Response Sameron-1

Draft EIR Section 3.11, *Hydrology and Water Quality*, discusses existing flooding and flood risk (beginning on page 3.11-7), future flood risk (page 3.11-10), and the Project's impacts on flooding (Impact HYD-3, page 3.11-43 et seq.).

3.4.30 Sandra

Comment Sandra-1

"Yes, I'm worried, and it's been a long time since they said they were going to do this project. I'm scared because I live in that area that could be flooded."

Response Sandra-1

As indicated in the Draft EIR (page 2-3), 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. The following text from Draft EIR page 2-56 in Chapter 2, *Project Description*, describes the Project's Schedule: "Project construction would be implemented by member agencies who would determine the ultimate construction schedule. A preliminary construction schedule, presented in Table 2-4, has been developed for purposes of evaluation." The preliminary schedule assumes that construction would begin in 2029 and be completed by 2034.

3.4.31 Jessica Santillan

Comment Santillan.J-1

> "I live on Sacramento St where we have a dead end I am worried about the traffic impacts that will affect us."

Response Santillan.J-1

Draft EIR Section 3.16 evaluates the potential impacts of the Project on existing transportation resources and circulation. The Safer Bay Project Team would require the implementation of Mitigation Measure TRA-1 to reduce traffic-related impacts. Implementation of Mitigation Measure TRA-1 includes preparation of a traffic control plan and addresses potential traffic conditions that could conflict with levels of service policies by directing traffic outside of peak hours where feasible, potential access conflicts with alternative transportation facilities, and potential impacts on emergency response access.

3.4.32 Victor Santillan

Comment Santillan.V-1

> "How would this project will effect traffic in the city?" [The commenter is a resident of East Palo Alto.]

Response Santillan.V-1

Section 3.16, *Transportation*, evaluates the potential impacts of the Project on transportation resources and circulation. The Project would temporarily increase traffic on the access routes to and from construction sites during Project construction. Table 3.16-3 (Draft EIR page 3.16-10) presents estimated daily vehicle trip generation during construction. Vehicle trips following construction would be minimal.

Comment Santillan.V-2

> "For this project, are you using eco friendly materials? There's a lot of contamination on the city already."

Response Santillan.V-2

The levees will be composed of soil. Plantings on the bayward side of the levee will be native species. Decisions regarding materials to be used for trail amenities (e.g., park benches, viewing platforms) would be decided during final design but would follow requirements established for the Bay Trail.

Regarding contamination, the Draft EIR evaluates issues related to contamination and hazardous materials. Information regarding the presence of contamination is provided in Section 3.10, Hazards, Hazardous Materials, and Wildfire, and Section 3.11, Hydrology and Water Quality. Section 3.11 also discusses the potential for the Project to affect groundwater and water quality. These sections evaluate potential impacts and identify applicable regulatory requirements and mitigation measures to ensure that impacts related to contamination and water quality are appropriately addressed. Mitigation measures include: HAZ-1 (Health and Safety Plan), HAZ-2 (Soil Management Plan), HYD-1b (Groundwater Handling Requirements), HYD-1a (Master QAPP for Imported Terrestrial Fill), and HYD-1b (Groundwater Handling Requirements).

3.4.33 Sean

Comment Sean-1

"When the sidewalks were redone some block drains were removed. Which caused more flooding."

Response Sean-1

This comment is not related to the Project or the content of the Draft EIR.

3.4.34 Alicia Smith

Comment Smith-1

"Interested in the plans for when the flood comes how will the residents be protected"

Response Smith-1

The Project includes several features designed to protect parts of Menlo Park and East Palo Alto from coastal flooding, including levees, floodwalls, hybrid shoreline protection features, and other flood risk reduction structures. Together, these elements would create a physical barrier between the Baylands and nearby residential areas to help prevent floodwaters from reaching homes and neighborhoods. Figure 2-1 in the Draft EIR illustrates the Project's alignment and the locations of these protective features.

3.4.35 Claudia Solis

Comment Solis-1

"Hamilton Park development 2007 exempt 9 homes from original development of 44 homes changed to 11.1 feet 7.9 what guarantees this will not change."

Response Solis-1

This comment is not related to the Project or the content of the Draft EIR.

3.4.36 Jesus Sot

Comment Sot-1

"I will like to see the Project to start earlier than 2029 if is possible. Thank you."

Response Sot-1

This comment has been acknowledged. As noted on page 2-56 of the Draft EIR, "Project construction would be implemented by member agencies who would determine the ultimate construction schedule. A preliminary construction schedule, presented in Table 2-4, has been developed for purposes of evaluation. Prior to construction, the SAFER Bay Project Team and member agencies would complete design, supplemental environmental review and permitting as needed, and bidding for each reach, which could last 2 or more years."

3.4.37 Lucia Soto

Comment Soto-1

> "I would like this project to be done very quickly, because insurance for properties is very expensive, and with this project the whole community would benefit, including businesses. We have been supporting this project for a long time. I would like this project to happen now."

Response Soto-1

This comment has been acknowledged. Refer to **Response Sot-1** regarding the Project's implementation schedule.

3.4.38 John Sykes

Comment Sykes-1

> "Concerned about the loss of Ravenswood Trail resource - would love to have the existing levee be engineered to allow interior area to be restored while keeping recreational (levee top) trail."

Response Sykes-1

Implementation of proposed habitat restoration in Ponds R1 and R-2 would require decommissioning of part of the Ravenswood Trail. As explained on Draft EIR page 2-14:

> The publicly accessible Ravenswood Trail occupies the crest of a berm that extends around Ponds R1 and R2 (refer to upper portion of Figure 2-5). The two tidal restoration breaches shown in Figure 2-3 would remove trail access to the bayshore segment of the trail. The Project would decommission approximately 1.8 miles of the existing trail between the two breach locations (refer to lower portion of Figure 2-5) and convert the decommissioned segment to T-zone habitat. The decommissioned segment would provide near-term wind-wave protection to allow sufficient time for vegetated tidal salt marsh to establish within Pond R1; the berm would naturally erode over time. The remainder of the trail would be converted to two spur trails originating on either side of the Pacific Gas and Electric Company (PG&E) Ravenswood Substation. The northernmost 1,500 feet of the western spur trail would be closed during the seabird nesting season.

Although approximately 1.8 miles of the Ravenswood Trail would be decommissioned and a 1,500-foot segment would be seasonally closed to protect nesting seabirds, the Project also includes improvements to approximately 2.69 miles of existing trail and construction of approximately 2.11 miles of new trail.

3.4.39 Rosario Trujilo

Comment Trujilo-1

"It's great to support the people who have been affected by San Francisquito with this whole project that's going to be carried out, so that we don't become the ones affected next."

Response Trujilo-1

This comment has been acknowledged.

3.4.40 Inez Watkins

Comment Watkins1-1

"How will the city support residents with influx of rodent during this time."

Response Watkins1-1

Rodent migration because of construction is often related to infestations within a building that is demolished. The SAFER Bay Project is not demolishing buildings. Typical animals that could be displaced because of levee and floodwall construction could include raccoons, feral cats, opossums, and rabbits; these animals could choose to move farther into the open space areas that abut the Project alignment rather than migrating to residential areas.

Comment Watkins1-2

"Why have street drains been removed from certain block when the sidewalks were redone. Which has contributed to more flooding."

Response Watkins1-2

This comment is not related to the Project or the content of the Draft EIR.

3.4.41 Watkins

Comment Watkins2-1

"Too many leaves. We had to do a lot of cleaning when it comes to the leaves, there are a lot of leaves in the parks of Belle Haven."

Response Watkins2-1

This comment is not related to the Project or the content of the Draft EIR.

3.5 Responses to Public Meeting Oral Comments

Please note that the SFCJPA is proposing to adopt select features of the Modified Footprint Alternative (refer to Section 1.4 of this document). Future actions for implementing the Project would be undertaken by the SFCJPA, the cities of East Palo Alto or Menlo Park, or the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), referred to hereafter as the SAFER Bay Project Team for ease of reference.

3.5.1 Public Meeting #1, East Palo Alto

Comment Meeting1-1

"Given that the City of Palo Alto owns approximately 15% of the land in East Palo Alto, including a lot of the land for the south of Bay Road reach, do we have plans currently for still being able to construct the levee despite ownership being ties to a different city?"

Response Meeting1-1

The Project has been coordinating with the City of Palo Alto, including review of draft plans. Table 2-11 lists the approvals needed by the City. Differing ownership does not preclude construction; instead, the SAFER Bay Project Team coordinate approvals, property rights, and permits across city boundaries (Draft EIR Section 2.1, *Project Background*). Acquisition of properties and easements and/or rights-of-way and required permits and approvals (see Table 2 11) would be obtained from the appropriate entities (e.g., landowning jurisdictions and resource/regulatory agencies) as part of implementation.

Comment Meeting1-2

"I would like to ensure that we have at least the same number of entrances for East Palo Alto residents to the Bay Trail, especially for the south of Bay Reach, or south of Bay Road Reach. When I was reading the draft EIR, it seemed like some of the entrances would be removed, such as Runnymede, so it would be helpful to clarify some of those details."

Response Meeting1-2

The commenter's request concerning the number of trail access points in East Palo Alto has been acknowledged. The SFCJPA has been coordinating with City of East Palo Alto staff. As indicated in the Draft EIR (page 2-14), specific locations of access points would be determined in future detailed designs and in coordination with stakeholders.

Comment Meeting1-3

"I have a question about the dust particles, because years and years ago there were some plants, some chemical plants, on Bay Road and I want to know as they start digging, who's testing and how thorough it's going to be."

Response Meeting1-3

This issue is addressed in Impact Haz-1 (Draft EIR page 3.10-22) and through the implementation of Mitigation Measures HAZ-1 and HAZ-2. Mitigation Measures HAZ-1 and HAZ-2 would require implementation of a Health and Safety Plan and a Soil Management Plan. With implementation of Mitigation Measures HAZ-1 and HAZ-2, the Project is not expected to create a significant hazard to the public or the environment.

Comment Meeting1-4

"Can we submit comments online?"

Response Meeting1-4

Comments on the Draft EIR were accepted online via email and the form on the Project's website (www.sfcjpa.org/the-safer-bay-project). The deadline for submitting comments was 5:00 p.m. on Friday, January 23, 2026.

Comment Meeting1-5

"Are you going to respond back to us if we have a question?"

Response Meeting1-5

Yes, comments pertaining to the Project and to the content and adequacy of the EIR received during the comment period are responded to throughout Chapter 3, *Responses to Comments Received on the Draft EIR*, of this document.

Comment Meeting1-6

"Can we submit comments to the JPA right now?"

Response Meeting1-6

Meeting attendees were notified that oral comments and comment cards were accepted during the meeting.

Comment Meeting1-7

"During the evacuation time, once the levee is put up, and I'm making a lot of assumptions with my question, but what I'm looking for is the evacuation time from the time the water crests at the levee, what system will be in place once the project is complete, if at all, that may warn the residents on the other side of the levee that could be impacted? Will there be any warning systems in place for that, or is this going to be eyeballed?"

Response Meeting1-7

Please refer to **Response Jones-1** in Section 3.4 of this document.

Comment Meeting1-8

"If we build this, I've been told by certain folks, that the flood insurance requirements for homeowners will go away or be dramatically reduced. I think if you could talk about this, because this is going to suck. It's going to be absolutely terrible. I live very close to this, and I'm talking about the construction. It's going to be disruptive, loud, annoying. And at the end of it, if we come up with a, I believe the word if FEMA, FEMA accredited levee, then we're no longer in a flood zone or very dramatically lowered. So if you could speak to that a little bit, I think it would give people, especially homeowners, but anybody really, some idea of how this could positively help East Palo Alto?"

Response Meeting1-8

The Project is designed to be accredited by the Federal Emergency Management Agency (FEMA), and in tandem with the SFCJPA's completed Reach 1 Project, both tidal and creek flood risks would be

sufficiently reduced so that a request to FEMA can be made in a Conditional Letter of Map Revision. Once approved by FEMA, the need for flood insurance should no longer be required.

Comment Meeting1-9

> "Our house is not exactly in the flood zone. Our issue, and I don't know if this would help us. We got a lot of underground water that comes up with floods our whole bottom of our house. And we need to pump all the water out. I mean, we have, when it rains, we have the pumps going on. We have 3 pumps going on underneath our house, 24 hours a day. And yes, our PG&E is up the roof. Would this help us also, or this has nothing to do with that?"

Response Meeting1-9

As discussed in **Response BCDC-30**, the Project is not expected to substantially alter groundwater flow; groundwater is the likely the source of flooding at the commenter's house. During storm events, groundwater levels can rise and cause localized flooding. As discussed in Draft EIR Impact HYD-3, the Project would block drainage from some areas of East Palo Alto and, as discussed in **Response CCCR-110**, the Project with mitigation includes stormwater conveyance infrastructure to avoid worsening flooding in developed areas during storm events. This comment does not address the adequacy or accuracy of the environmental analysis, and it does not identify or raise any significant environmental issues related to the Draft EIR under CEQA (CEQA Guidelines section 15088).

Comment Meeting1-10

> "I have a question about some of the terms you used. I think 100-year flood and king tide. Maybe you could walk us through what those are and what they would actually look like for us in the flood one if these events were to happen. Because we've talked about it in a lot of technical terms, and I think it's difficult for some of us to imagine what it would be like to experience it if it happened."

Response Meeting1-10

As described in the Draft EIR (page 2-3), parts of East Palo Alto and Menlo Park are within the existing 1-percent annual chance (commonly referred to as the 100-year flood event) flood hazard area as mapped by FEMA. A King Tide is a term often used to describe exceptionally high tides that occur during a new or full moon. Refer to Appendix FEMA for a map depicting flooding under the 100-year flood event.

Comment Meeting1-11

> "Speaking of Cooley Landing, I wondered what would the levees look like there because there's the education center, the picnic tables. I mean, it's a nice spot. I was thinking it's high enough, but then you said the Bay Road would flood. So now I'm worried. What would it look like there?"

Response Meeting1-11

No levee is proposed around Cooley Landing. Instead, a flood gate would be installed across Bay Road. Most of the time, the flood gate would lay flat, embedded in the roadway, to allow access to the Cooley Landing Education Center. When bay floodwaters rise to the height of Bay Road at the gate's location, the gate would automatically rise to provide contiguous flood protection from the South of Bay Road Reach to the North of Bay Road Reach.

3.5.2 Public Meeting #2, Menlo Park

Comment Meeting2-1

"I have a question that might be in three parts and I don't know if it's in relation to what's going on here now. First thing I want to know, your project, it sounds wonderful, but I live on that Menlo Park borderline and I see your draft shows that whole line across there. So one, how is it going to affect the property, our property, and all the construction and things going on, the air quality and all of that kind of stuff? Because what I'm concerned about is it going to kind of run parallel? Are they going to notify us with everything? Because you don't want another catastrophe like happened in Hayward. Because people weren't aware of certain things that was going on, but then all of a sudden they get this big explosion. You know, I don't know if it was, I'm sure it wasn't done on purpose, but the neighborhood wasn't aware. And I just wanted to know if something, how do we avoid something like that or do we have to be concerned about that? That kind of stuff. Thank you."

Response Meeting2-1

Draft EIR Appendix APN lists the assessor's parcel numbers of properties that are partially within the footprint of the Project site, and Appendix CONST depicts the limits of construction. Section 3.3 in Draft EIR Chapter 3, *Setting, Impacts and Mitigation Measures,* evaluates the potential for the Project to adversely affect air quality or increase health risks to sensitive receptors, and includes Mitigation Measure AIR-1 (Draft EIR page 3.3-27) to control dust from construction. Mitigation Measure NOI-1 (Draft EIR page 3.13-29) requires notification of noise sensitive receptors (e.g., residents near construction areas) at least 30 days prior to the start of construction activities. The SAFER Bay Project Team will continue regular public outreach events to provide Project updates.

Comment Meeting2-2

"I would like to know how much the project is estimated to cost."

Response Meeting2-2

The overall preliminary cost estimate for the Project may exceed $500 million based on existing (10-percent and 30-percent) design. Costs will be refined as the designs are advanced, and value engineering is being used to reduce costs while providing flood risk reduction and resiliency to sea level rise.

Comment Meeting2-3

"How are we leveraging development impact fees to pay for this project? So for people who don't know development impact fees, it's basically when there's new construction in a city like East Palo Alto and Menlo Park, that new construction project has to pay the city a lot of money sometimes for infrastructure and services that benefit the residents and the city. I know in Menlo Park specifically, there's a lot of development with Independence Drive with Facebook/Meta. So how are we using that money? And because they have to pay impact fees to benefit the residents in Menlo Park. And there's a lot of development in East Palo Alto, too. So yeah, development impact fees. How are we using that?"

Response Meeting2-3

This comment addresses Project financing and does not address the content or adequacy of the EIR. Development Impact fees are not related to Project funding.

Comment Meeting2-4

"I live off of Madera. Sort of wanted to piggyback on what she was saying in terms of the cost and also the impact in terms of the massive trucks coming in, the dust, the time frame they're going to be working, like not till 10 o'clock at night, all the bright lights."

Response Meeting2-4

Please refer to **Response Meeting2-2** for an estimated cost of the Project and **Response Meeting2-3** regarding Development Impact fees. Draft EIR Table 2-7 (page 2-64) presents the estimates for truck trips during each construction phase. As indicated in the Draft EIR (page 3.3-27), the Project would implement Section 3.3 in Draft EIR Chapter 3, *Setting, Impacts and Mitigation Measures,* which evaluates the potential for the Project to adversely affect air quality and includes Mitigation Measure AIR-1 (Draft EIR page 3.3-27) to control dust from construction. As indicated in Draft EIR Section 2.6.2, *Construction Work Hours*, construction would generally occur between 8:00 a.m. and 5:00 p.m., Monday through Saturday.

Construction contractors may install temporary security lighting at construction staging areas. However, Mitigation Measure AES-2 (Draft EIR page 3.2-29) that applies to all reaches would require that Project contractors direct nighttime lighting used during construction away from adjacent residential areas or habitat, and 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.

Comment Meeting2-5

"What is the height of these levees going to be? Are we going to have like, on the freeway, you have a wall that's 10 feet tall. Those levees are not going to be that high, are they?"

Response Meeting2-5

As shown in Table 2-3 in Chapter 2, *Project Description*, proposed levee elevations generally range from approximately 10 feet to approximately 21 feet North American Vertical Datum of 1988 (NAVD88), depending on location. The height of the levee would vary by reach and often within each reach. The variation in target elevations across the different reaches is the result of several site-specific design factors evaluated during preliminary engineering. These factors influence the required crest height needed to achieve a consistent level of flood protection throughout the Project corridor. Key considerations include projected settlement of the flood protection structures, wind-wave run-up, and freeboard requirements. For example, target elevations increase in areas subject to greater wave generation and run-up potential. To see what the levees will look like, visit the completed levees along San Francisquito Creek from United States Route 101 to O'Connor Street in East Palo Alto and at the Baylands Athletic Center in Palo Alto, which were completed in 2019.

Comment Meeting2-6

"For the questions that aren't being answered tonight, how are they going to get those answers?"

Response Meeting2-6

Comments on the content and adequacy of the EIR received during the public comment period have been addressed in Chapter 3, *Responses to Comments Received on the Draft EIR*, of this document.

Comment Meeting2-7

"Recently there was a lot of construction and levees between the Dumbarton Bridge and Bedwell Bayfront Park. How does that relate to what's going on now? And this seems to duplicate some of that work potentially or obsolesce it and it just got done. This is a new flyway trail that was put in place."

Response Meeting2-7

The construction referenced between the Dumbarton Bridge and Bedwell Bayfront Park pertains to separate projects and is not part of the Project evaluated in the Draft EIR. With implementation of the Project, the berm on which the existing Flyway Trail was constructed would be replaced by an engineered levee; the trail would be reconstructed atop the proposed levee (which would be higher than the existing berm and design to provide shoreline protection).

Comment Meeting2-8

"When will the project start? How long is it going to take? I really want to know how long is the project going to take, when will it start, so we will be prepared."

Response Meeting2-8

The schedule presented in the EIR (Section 2.5 in Chapter 2, *Project Description*, Draft EIR Table 2-4, page 2-58) presents the estimated Project implementation schedule, including the estimated start of construction for each reach. As shown, construction could begin as soon as 2029 and could take 5 to 6 years to complete. The schedule will be driven by funding and design and will likely change in the future. The SAFER Bay Project Team will continue regular public outreach events to provide Project updates.

Comment Meeting2-9

"Once you start this project, you're digging up, you're going to have bad water, concrete, dirt, everything is going to be coming up. We have the worst air quality over here. The west side of Menlo Park does not have the air quality that we have. So how is this going to affect us? Is there any way you can help us work around this?"

Response Meeting2-9

Draft EIR Section 3.3, *Air Quality*, evaluates the potential impacts of the Project on existing air quality in the Project area and evaluates the potential for the Project to adversely affect air quality or increase health risks to sensitive receptors. As stated on page 3.3-25 of the Draft EIR:

> The Air District recommends implementing these best management practices whether construction-related emissions exceed the applicable significance thresholds. These measures are included as Mitigation Measure AIR-1, and reduce particulate emissions primarily during soil movement, grading, and demolition activities, but also during vehicle and equipment movement on unpaved project areas.

Implementation of Mitigation Measure AIR-1 would reduce dust and particulate emissions during construction activities. The Draft EIR appropriately concludes that with Mitigation Measure AIR-1, Impact AIR-3 would be less than significant. Nonetheless, while the cities of East Palo Alto and Menlo Park are not committing to implementing particulate matter (PM) monitoring at this time given that it is not warranted by the EIR's impact evaluation, they are open to exploring PM monitoring during future

Project planning. The Draft EIR identifies numerous measures to protect water quality (refer to Table S-2, pages S-29 and S-29) for a list of these measures.

Comment Meeting2-10

> "Having the levees is a good idea with the rising tide. But what I'm concerned about, who's going to be responsible for taking care and inspecting the levees? And how often?"

Response Meeting2-10

Draft EIR Section 2.7, *Operation and Maintenance*, explains that member agencies will conduct routine inspections of levees, floodwalls, and flood gates, and manage interior drainage, with inspections increasing to a daily basis during high-water events.

Comment Meeting2-11

> "Will this allow us to be exempt from requiring flood insurance?"

Response Meeting2-11

The construction of the SAFER Bay Project would reduce the floodplain area in Menlo Park and East Palo Alto. The Project is designed to be accredited by FEMA, and in tandem with the SFCJPA's completed Reach 1 Project, both tidal and creek flood risks would be sufficiently reduced so that a request to FEMA can be made in a Conditional Letter of Map Revision. Once approved by FEMA, the need for flood insurance would no longer be required.

Comment Meeting2-12

> "I purchased a home in 2007, and they built forty-four homes all those forty-four homes were exempt, but then there was a process in 2019, and they removed nine of those homes. So nine of my neighbors don't have to pay for flood insurance, but the other 39 do. And actually my house is actually higher than the rest. I actually had a meeting with Mr. Holmes and the mayor a while back, Jackie Spears. We've got a lot of people involved, so nobody took any action."

Response Meeting2-12

This comment is not related to the content or adequacy of the Draft EIR. Please refer to **Response Meeting1-8** and **Meeting2-11** regarding the Project's potential to affect the need for flood insurance.

Comment Meeting2-13

> "I live on Hamilton Street. And I'm one of those neighbors over there who are paying flood insurance right now. So I would love to see the project start as early as possible, not in 2029."

Response Meeting2-13

This comment, which addresses the Project schedule and not the content or adequacy of the Draft EIR, has been acknowledged.

Comment Meeting2-14

"I have the same problem. We but a house in the same area. And I would like, we follow this project and the meetings for a long, probably 10 years or less than 10 years, I don't know. But meetings and follow the project and for me is 6 years more is too long. You guys had to well done this problem as soon as possible."

Response Meeting2-14

This comment, which addresses the Project schedule and not the content or adequacy of the Draft EIR, has been acknowledged.

Comment Meeting2-15

"I know you spoke of funding, and as long as the funding is there, if the finding is cut, is that going to be additional property tax for us or what?"

Response Meeting2-15

Future Project implementation funding is not yet secured. There could be several options for funding sources, including grants and various city revenues. Property taxes are up to the individual cities to determine.

Comment Meeting2-16

"I don't want to see our communities flooded, obviously, However, we don't have a lot of rain that's contributing to all of this. And at the same time, I think we need to really not rush to have this done when you don't know the impact in terms of your taxes, in terms of the construction, in terms of the traffic. And I think given the monies that we get from Facebook's taxes should also be looked at in contributing to that because the city gets tremendous amount of money in the millions from Facebook being in our community. I think we need to really look deeply at this in terms of rushing to do it."

Response Meeting2-16

The Project's purpose is to protect the community from tidal and sea level rise flooding. Regarding Project funding, please refer to **Response Meeting2-15**. The purpose of the EIR is to evaluate the Project's effects on the physical environment.

Comment Meeting2-17

"Understanding the importance of preserving marshlands, what alternatives are there to massive walls of levees?"

Response Meeting2-17

Chapter 4 of the Draft EIR includes the Modified Footprint Alternative, which could reduce the magnitude and severity of impacts on waters of the United States and state, including marshland. As described in Chapter 2 (beginning on Draft EIR page 2-6), the Project includes the restoration of approximately 576 acres of tidal salt marsh in addition to other habitat improvements.

Comment Meeting2-18

"You don't want something like to happen that happened in Seattle when they had like 21 days of rain. Okay, the water over there, the water over there is very, very, you know, it could come any time. Back in the 90s, they had the flood before they built the wall over in San Francisquito Creek that flooded the area over there, and people have to evacuate their homes. So I think it's a good idea that they do it know, but funding's always a problem."

Response Meeting2-18

The comment, which notes past flooding events in the region and the importance of flood protection, has been acknowledged. As described in the Draft EIR, the Project is intended to reduce the risk of flooding from San Francisco Bay waters and future sea level rise through the construction of shoreline protection features and related flood risk reduction measures. Funding considerations are not related to the scope or content of the Draft EIR, which evaluates the Project's effects on the physical environment.

Comment Meeting2-19

"I support the project. I encourage us to really consider the responsibility of PG&E, who has an extraordinary amount of money that they get from the residents, as well as Meta, and that we have the money. There's enough money between those two organizations to complete the project."

Response Meeting2-19

This comment expressing support for the Project has been acknowledged. Funding considerations are not related to the scope or content of the Draft EIR, which evaluates the Project's effects on the physical environment.

Comment Meeting2-20

"Can you tell me who the architect, who the general contractor is, if it's been selected already? Who's the developer?"

Response Meeting2-20

The SAFER Bay Project is in the planning and design phase. It does not have a general contractor, architect, or developer. Construction contractors will be solicited by the cities of Menlo Park and East Palo Alto in phases when designs are complete, permits obtained, and adequate funding is available.

Comment Meeting2-21

"2029 if actually pretty soon if you think about it in construction terms. It's super soon."

Response Meeting2-21

This comment, which addresses the estimated construction schedule, has been acknowledged.

Comment Meeting2-22

"How should we put the subject line for the e-mail that we'd be writing for public comment?"

Response Meeting2-22

This comment was addressed during the meeting. Attendees were advised to put "SAFER Bay Draft EIR Comment" or similar content in the subject line for email comment submittals. Additional ways to comment (e.g., the comment submittal form on the SFCJPA's website) were also discussed.

3.5.3 Public Meeting #3, SFCJPA Board Meeting

Comment Meeting3-1

> "My comments really are not on the EIR itself, but rather on the process. I was able to go to both the meetings that were just recently put on, and I wanted to make a few comments about that and about moving into the future. First of all, I thought they were extraordinarily well done, and kudos to the staff, kudos to ESA, kudos to CRC and Nuestra Casa for providing this wonderful community experience. The turnout, I think last night I think we had 100 people in the room, something like that, and in East Palo Alto, it was probably somewhat similar. I haven't seen turnouts like that. Obviously, these are the communities that are most affected and are interested, but I think by engaging the NGOs that actually live and work in those communities to reach out to their people and they are really embedded in those communities, that's what brought those people out. Along with the food, and stuff like that. And there were people there, I talked to a few people afterwards, community members who hadn't been involved at all and they told me how useful it was and how well it was done. So, I just wanted to say that I think we're going down the right track in terms of engaging those communities, which is, to me, a very important thing, and I hope it is to you too."

Response Meeting3-1

Your comment has been acknowledged; public outreach by community-based organizations has been successful and this type of outreach will be continued as the SAFER Bay Project moves forward.

Comment Meeting3-2

> "In the future, what I would like to actually see, and I know it's costly and I know it consumes staff time, but some more of this as we move along. This is a project that probably is not going to be shovel ready until 2029, 2030, and then it's another six or seven years. I think it's really important to keep the community feeling like they are part of that process as we go forward. And it's not just sending out emails, and it's not just putting stuff on the website, that's part of it. But I would encourage the staff to actually consider what I would think of as a communication plan, where at least annually, you had some sort of community gatherings in these two cities to actually update people about what's going on and have that opportunity to have conversations, which is really the best way to communicate. And I know it's costly, time-consuming, but I think it's going to provide a very large upside because there are going to be, as we heard the other night, there are a lot of concerns about the construction process. So just a suggestion, and thanks again very much for staff and ESA for their work."

Response Meeting3-2

The SAFER Bay Project Team agrees with the benefit of regular public outreach events to provide Project updates and will plan for these when there are substantial updates on the Project.

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CHAPTER 4
Draft EIR Revisions

4.1 Introduction

This chapter presents revisions to the Draft Environmental Impact Report (Draft EIR) for the Strategy to Advance Flood Protection, Ecosystems, and Recreation along San Francisco Bay Project (SAFER Bay Project or Project) that was published on December 1, 2025. These revisions include both (1) changes made to text, tables, or figures in response to comments on the Draft EIR as discussed and presented in Chapter 3, as well as (2) staff-initiated text changes to correct minor inconsistencies, to add minor information or clarification related to the Project, and to provide updated information where applicable. None of the revisions or corrections in this chapter substantially change the analysis or conclusions presented in the Draft EIR. Revised figures are shown at the end of this chapter.

The chapter includes all revisions by reproducing the relevant excerpt of the Draft EIR in the sequential order by the chapter, section, and page that it appears in the document. Preceding each revision is a brief explanation for the text change, either identifying the corresponding comment codes, such as Comment Cargill-7, where the issue is discussed in each chapter, or indicating the reason for a staff-initiated change. Deletions in text and tables are shown in strikethrough (~~strikethrough~~) and new text is shown in underline (double-underline).

4.2 Changes to the Draft EIR

4.2.1 Cover, Table of Contents, Acronyms, Abbreviations, Glossary, and Summary

Text on Draft EIR page S-2 is revised as follows:

> 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 ~~and managed~~ 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).

Text in the second paragraph on page S-2 is revised as follows:

> The Project also includes actions within land owned by the State of California (within the State Route 84 right-of-way at the western approach to the Dumbarton Bridge), the City and County of San Francisco (managed by the San Francisco Public Utilities Commission), Cargill, Incorporated ~~Corporation~~, and others.

Several Mitigation Measures have been revised; as a result, Table S-2 has been revised, as follows.

TABLE S-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Significance Determination	Mitigation Measure*
Biological Resources, EIR Section 3.4		
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.	LSM	**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., ~~T~~the Project will retain a qualified biologist to conduct a focused survey during the appropriate bloom season for Congdon's tarplant (~~June~~May through October, with blooming possible in April and November ~~and possibly later if conducted prior to the first heavy rains of the fall~~). 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 or not 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-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 ~~landscaped~~ 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;

Impact	Significance Determination	Mitigation Measure*
		• 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

Impact	Significance Determination	Mitigation Measure*
		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-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-25: Wildlife Exclusion Fencing.** This measure applies to all ~~the South of Bay Road, North of Bay Road, Dumbarton Approach, Substation and Marsh Restoration, and Bedwell Bayfront Park~~ 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.
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.	LSM	**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

Impact	Significance Determination	Mitigation Measure*
		• 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: o 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. o Success criteria and associated metrics that reflect adequate conditions for use by target wildlife species. o 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. o 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. o 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.
Cultural Resources, EIR Section 3.5		
Impact CUL-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5.	LSM	**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.

Impact	Significance Determination	Mitigation Measure*
		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.
Impact CUL-3: Disturb any human remains, including those interred outside of dedicated cemeteries.	LSM	**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.
Hazards, Hazardous Materials, and Wildfire, EIR Section 3.10		
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.	LSM	**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~~Site~~ 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

Impact	Significance Determination	Mitigation Measure*
		techniques. Based on ELAP laboratory results, ~~Uncontaminated~~ 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.~~may be reused onsite.~~ 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.
Hydrology and Water Quality, EIR Section 3.11		
Impact HYD-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	LSM	**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.
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.	LSM	**Mitigation Measure HYD-2a: Runnymede Street Stormwater Management ~~Pump Station Design~~.** 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 ~~the Runnymede Pump Station~~ 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 ~~Runnymede Pump Station~~ shall be operational prior to construction of the North of Bay Road shoreline protection.
Transportation, EIR Section 3.16		
Impact TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	LSM	**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

Impact	Significance Determination	Mitigation Measure*
		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.

4.2.2 Chapter 1, Introduction

Staff initiated changes were made to revise Section 1.2.2, Draft EIR, on page 1-2 as follows:

> **Wednesday, December 17, 2025. 6:00 p.m. to 8:00 p.m.**
>
> Belle Haven Community Campus
> 100 Terminal Avenue
> ~~Menlo Park City Hall, City Council Chambers~~
> ~~701 Laurel Street~~
> Menlo Park, CA 94025

Table 1-1 on page 1-5 is revised as follows:

Year	Date	Event
2023	May 3	Project Review meeting with SFPUC
2025	October 15	Project Review meeting with SFPUC

4.2.3 Chapter 2, Project Description

Text on Draft EIR page 2-1 is revised as follows:

> The Project site is within the cities of East Palo Alto, Menlo Park, and Redwood City in San Mateo County 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 the Faber and Laumeister marshes (owned by the City of Palo Alto and managed by the Refuge); and in the Ravenswood Open Space Preserve (owned and managed by Midpeninsula Regional Open Space District).

Text in the first paragraph on page 2-3 is revised as follows:

> 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), City and County of San Francisco (managed by the San Francisco Public Utilities Commission [SFPUC]), Cargill, Incorporated (Cargill) ~~Corporation~~, and others.

Text in the first full paragraph on page 2-14 is revised as follows:

> ***Slough Channel Replacement***
>
> Some levee segments and/or the bayward construction buffer intrude into existing tidal marsh. For some of these intrusions, the levee footprint or the bayward construction buffer necessary for access and dewatering would fill tidal channels that currently provide hydraulic connectivity to marsh areas otherwise unaffected by the levee. Without this hydraulic connectivity, the associated marsh areas would experience altered tidal inundation impairing marsh vegetation and habitat function. To address the impacts of filling these channels, replacement tidal channels would be

constructed as a first order of work to provide alternative hydraulic connectivity pathways and avoid hydrologic impacts to the tidal marsh. Affected channels are identified in Faber Marsh, Laumeister Marsh, Ravenswood Open Space, Moseley Tract Marsh, and Ravenswood Slough.

Table 2-3 on page 2-18 is revised as follows:

TABLE 2-3
PROJECT REACH DIMENSIONS

Reach	Approx. Length (feet)	Elevation Change (approximate feet NAVD88)		Max. Depth of Disturbance below Grade (approximate feet NAVD88)	
		Existing Grade	Proposed Grade[a]	Excavation Depth	Sheet Pile Depth[c]
South of Bay Road	5,270	4.5–18	Top of Bay Trail: 12.8–18; top of floodwall: 16.5 Estimated length of floodwall: 5,270 feet	-2	-25 to -40
North of Bay Road	4,735	6.5–12	Top of Bay Trail/levee: 17.8–18.5	-6	N/A
Dumbarton Approach	9,135	3–12	• Southern Program-level segment, top of levee: 18.5–21.4 • Project-level segment, top of levee: 8–24.4 • Northern Program-level segment, top of floodwall: 18.5; top of Bay Trail: 14.5–21 • Estimated length of floodwall: 3,730 feet (along SR 84 frontage road)	-6	-25 to -40[b]
Substation and Marsh Restoration	5,215	2–10	Top of levee: 10–21	-6	N/A
Tech Campus	4,940	6–19.5	Top of levee: 19.3–22.3; top of levee/trail around Meta Headquarters: 14.7–19.6; top of floodwall: 18.5 Estimated length of floodwall: 4,940 feet	-6	-25 to -40[b]
Bayfront Expressway	6,700	2–15	Top of Bay Trail/levee: 10–19.6	-6	N/A
Bedwell Bayfront Park	1,065	5–13	Top of levee: 12.1–18.7		
Marsh Road	3,165	4.5–13	Top of levee: 11.1–18.7		

NOTES: NAVD88 = North American Vertical Datum of 1988

a. Does not include appurtenant trail features such as handrails or signage.
b. Estimated depth through underlying bay mud to stiffer alluvium layer. To be confirmed in future design phases.
c. Sheet piles are included to reduce the amount of anticipated settlement under the levee. To be effective the sheet piles must pass through the levee and the underlying bay mud into consolidated alluvium.

SOURCE: ESA 2024; HDR 2024

Text on page 2-23 is revised as follows:

> **Shoreline Protection.** The proposed shoreline protection design for this reach consists of a levee/floodwall hybrid. Refer to **Figure 2-8** for typical sections along the reach and Figure 2-7 for the locations of those sections. SFCJPA's recently completed levee at San Francisquito Creek (shown on Figure 2-7) considered sea level rise in its design criteria and protects East Palo Alto from coastal and fluvial flooding from San Francisquito Creek. The southern end of the South of Bay Road Reach would tie into the levee at San Francisquito Creek. At the northern end of the South of Bay Road Reach/southern end of the North of Bay Road Reach, a flood gate across Bay Road would be installed. This flood gate would lay flat, embedded in the roadway, to allow access to the Cooley Landing Education Center most of the time. When bay floodwaters rise to the height of Bay Road at the gate's location, the gate would automatically rise to provide contiguous flood protection from the South of Bay Road Reach to the North of Bay Road Reach. Temporary sheet piles would be installed on the bay side of the reach to control water during initial site preparation and would be removed during closeout. Permanent sheet piles would be installed along the levee to provide vertical support and settlement ~~for seepage~~ control after construction of the levee prism. Although the primary access to the reach would be along the top of the levee, an approximately 15- to 20-foot-wide unpaved access road would be maintained on the western side of the levee for operation and maintenance.

Text under *Existing Conditions* on page 2-25 is revised as follows:

> The reach terminates just north of the San Mateo County Transit District (SamTrans) railroad right-of-way ~~Southern Pacific Railroad tracks~~ (not currently in operation).

Text in the caption for View A on Figure 2-9 on page 2-26 is revised as follows:

> View A: Drainage channel west ~~east~~ of Bay Trail facing northwest.

Figures 2-10 and 2-13 on pages 2-27 and 2-33 are revised to correct the label for "Southern Pacific Railroad (not currently in operation)" to "SamTrans Railroad Right-of-Way (not currently in operation)."

Text under *Existing Conditions* on page 2-30 is revised as follows:

> The reach extends from north of the SamTrans railroad right-of-way ~~Southern Pacific Railroad tracks~~, through Pond SF2, and around the eastbound lanes of SR 84 to the northern side of the westbound lanes.

Figure 2-15 on page 2-37 is revised to correct the typical section on the upper half of the figure from "F3" to "F2."

Figures 2-13, 2-17, 2-20, 2-22, 2-24, and 2-25 on pages 2-33, 2-39, 2-45, 2-49, 2-53, and 2-57 are revised to show Cargill's Redwood City return line.

Text under *Existing Conditions* on page 2-47 is revised as follows:

> South of the expressway, stormwater is routed into the storm drain network that conveys water to the Chrysler Drive Pump Station. A section of ~~a brine channel (part of Cargill's brine conveyance system used to convey saline water between various salt production facilities)~~ Cargill's Redwood City Return Line (return line; a 16-inch underground pipeline that is part of Cargill's brine conveyance system and transfers brines between Cargill's Redwood City plant and its Newark plant) runs along the southern berm of Pond R3 (refer to revised Figure 2-22).

Text under *Infrastructure* on page 2-51 is revised as follows:

> The Project would disrupt operations of Cargill's brine conveyance system. If Cargill continues to operate the brine conveyance system in the future, Project implementation would require an alternative conveyance facility for the ~~brine~~ return line outside the levee footprint within the Bayfront Expressway Reach.

Text under *Existing Conditions* on page 2-55 is revised as follows:

> Existing infrastructure includes Cargill's return line and the canals on either side of the reach alignment: the Bay Front Canal is used to manage stormwater; Cargill's brine channel ~~the canal~~ north of the proposed levee is used for water management in salt production.

Text under 2.7 Operation and Maintenance on page 2-63 is revised as follows:

> Maintenance responsibilities for levees, trails, and related infrastructure would be formalized through subsequent agreements among SFCJPA members and with relevant jurisdictions prior to construction and/or operation, including in operations and maintenance plans required for shoreline protection features. Maintenance would include inspections of the shoreline protection facilities, operating flood gates, managing interior drainage, and maintaining recreational amenities. Existing landowners would be responsible for maintaining public trails on their property.[1] The SBSPRP and/or Refuge would be responsible for monitoring and maintenance of proposed restoration areas. Maintenance activities would be completed by existing staff; no new staff would be hired for Project operation and maintenance.

[1] Although the Metropolitan Transportation Commission acts as the regional planning, funding, and coordinating agency, the local right-of-way owner is responsible for operation and maintenance of the Bay Trail. The multiple jurisdictions and local agencies that are responsible for segments of the Bay Trail network each have their own policies and practices around maintenance. The Metropolitan Transportation Commission coordinates with and provides guidance for local agencies as appropriate (Szibbo 2024).

4.2.4 Chapter 3, Environmental Setting, Impacts, and Mitigation Measures

Revisions to this chapter were made in the following sections:

Section 3.1, Overview

Table 3.1-2 on page 3.1-6 is revised as follows:

Project No. on Map	Project Name (Project Sponsor or Jurisdiction)	Project Description	Status/Construction Dates if Known
7	Dumbarton Busway Feasibility Study ~~The Dumbarton Corridor Project~~ (San Mateo County Transit District [SamTrans])	SamTrans is conducting a feasibility study for a busway project on the Peninsula side of the Dumbarton Rail Corridor. The bus rapid transit service would bring bus service as well as bicycle and pedestrian improvements to East Palo Alto, Belle Haven (Menlo Park), Redwood City, and North Fair Oaks (unincorporated San Mateo County). Construction of the busway could begin in 2029.	Study underway with anticipated completion by early 2027. Construction potentially starting in 2029

Figure 3.1-1 on page 3.1-11 is revised to show Cumulative Project 7 as "Dumbarton Busway Feasibility Study" as recommended by SamTrans.

Section 3.2, Aesthetic Resources

Text in the last paragraph under *North of Bay Road Reach and Railroad Flood Gate* on page 3.2-20 is revised as follows:

> Views of the proposed flood gate at the SamTrans railroad right-of-way ~~Southern Pacific Railroad tracks~~ (refer to Figure 2-10) would not be readily available from publicly accessible locations. The nearest potential viewpoint would be from the Bay Trail approximately 300 to 400 feet to the west. This flood gate would lay flat and out of view most of the time and automatically rise only when needed to provide contiguous flood protection (i.e., fill the gap in the Project levee) when bay floodwaters rise. The SamTrans railroad right-of-way ~~Southern Pacific Railroad~~ is not currently in operation on this track, and the area is not accessible to the public; therefore, the flood gate would have no impact on visual character and quality in this portion of the North of Bay Road Reach.

Section 3.4, Biological Resources

Figures 3.4-2a, 3.4-2t, 3.4-2u, 3.4-2v, 3.4-3a, and 3.4-4i are revised to reclassify Pond 7c of Cargill's Redwood City Salt Ponds as "Industrial/Operational Pond" instead of Managed Pond.

Figures 3.4-2h and 3.4-2i have been revised to reflect the channel replacement in Moseley Tract Marsh.

Refer to Appendix BIO3-REV for revisions to the Habitat Basis of Design in response to this comment.

- Section 8
- Figures that show channel replacements

Figure 3.4-2t is revised to show the small drainage south of Marsh Road and north of the Bayfront Expressway as a culverted connection to Flood Slough, resulting in a change from "Detention Basin/Canal" habitat to "Muted Tidal Open Water" habitat.

Text on page 3.4-4 is revised as follows:

> Congdon's tarplant is a plant ranked by the California Native Plant Society as "List ~~1B.2~~1B.1" (meaning that it is rare in California and elsewhere), with no legal protective status under the federal Endangered Species Act (FESA) or California Endangered Species Act (CESA).

Table 3.4-4 on page 3.4-21 has been revised as follows:

TABLE 3.4-4
IMPACTS ON HABITAT – PROGRAM-LEVEL COMPONENTS

Jurisdictional Habitat	Habitat Type	Construction-Phase Temporary Impacts Associated with Shoreline Protection Infrastructure (acres)	Permanent Impacts (acres)					
			Flood Protection Infrastructure	Operation and Maintenance Road	Loss of Tidal Action	Total[a]	Tidal Marsh to Reestablish After 50 Years SLR[b] on Bay Edge	Net loss of Wetland and Aquatic Habitats[c]
Open Water	Culvert/Riprap	0.05	0.14	--	--	0.14	0.02	0.12
	Detention Basin/Canal	0.24	0.09	0.02	--	0.10	--	0.10
	Intertidal Mudflats	0.15	0.00	--	--	0.00	--	0.00
	Muted Tidal Open Water	0.14	0.38	0.01	--	0.40	--	0.40
Managed Pond	Managed Pond	5.31	8.10	--	--	8.10	0.03	8.07
Non-tidal wetlands	Saline Seasonal Wetland	0.02	0.25	0.05	0.02	0.32	--	0.32
	Non-Tidal/Muted Tidal Northern Coastal Salt Marsh	0.65	2.23	0.09	--	2.32	0.00	2.32
Upland	Landscaped/Developed	3.82	4.96	0.53	--	5.49	0.01	--
	Ornamental Woodland (Riparian)	0.04	0.02	--	--	0.02	--	--
	Ornamental Woodland (Upland)	0.00	--	--	--	0.00	--	--
	Ruderal Levee Slope	2.55	8.23	0.05	0.01	8.29	0.11	--
	Ruderal Upland	3.76	9.41	2.83	0.00	12.24	0.21	--
Tidal wetlands	Tidal Brackish Marsh	0.11	0.33	--	2.00	2.33	0.01	0.32
	Tidal Northern Coastal Salt Marsh	8.22~~7.76~~	11.00	1.22	2.63	14.85	2.55	9.67
	Tidal Open Water	1.36~~1.29~~	1.69	0.16	0.28	2.12	0.65	1.20
Total Impacts on Wetland/Aquatic Habitats[d]		**16.25~~15.72~~**	**24.21**	**1.56**	**4.93**	**30.69**	**3.26**	**22.18**
Total Impacts		**26.42~~28.89~~**	**46.81**	**4.97**	**4.94**	**56.72**	**3.59**	**NA**

NOTES:

a. Numbers may not sum due to rounding.
b. SLR = Sea Level Rise
c. Net loss is calculated as follows: (Total Permanent Impacts) – (Tidal Marsh to Reestablish after 50 Years SLR on the Bay Edge) – (Loss of Tidal Action) = Net Loss of Wetland and Aquatic Habitats. This is because tidal marsh to reestablish after 50 years would constitute wetland or aquatic habitat in the long term, and because non-tidal wetlands are expected to persist in the areas assessed as Loss of Tidal Action.
d. Open water, managed pond, non-tidal wetlands, and tidal wetlands.

SOURCE: H.T. Harvey & Associates 2025

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Text on page 3.4-27 has been revised as follows:

> **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~~.~~, ~~T~~the Project will retain a qualified biologist to conduct a focused survey during the appropriate bloom season for Congdon's tarplant (~~June~~May through October, with blooming possible in April and November ~~and possibly later if conducted prior to the first heavy rains of the fall~~). 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*.

Text on page 3.4-27 has been revised as follows:

> **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 ~~landscaped~~ 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.

Text on page 3.4-28 has been revised as follows:

> **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.

Text on page 3.4-32 has been revised as follows:

> During the construction phase, a total of approximately 1.3629 acres of tidal open water, 5.31 acres of managed pond, and 0.14 acre of muted tidal open water that could support special-status fish or EFH would be affected within the Program area (Table 3.4-4), including within the North of Bay Road, Dumbarton Approach, Tech Campus, Bayfront Expressway, and Bedwell Bayfront Park reaches (Figures 3.4-2b-u).

Text on page 3.4-42 has been revised as follows:

> During the construction phase, a total of approximately 8.227.76 acres of tidal northern coastal salt marsh, 0.65 acre of non-tidal/muted tidal northern coastal salt marsh, 0.11 acre of tidal brackish marsh, 5.31 acres of managed pond, and 2.55 acres of ruderal levee slope habitat that provide potential habitat for these marsh birds would be affected in the Program area (Table 3.4-4).

Text on page 3.4-44 has been revised as follows:

> Program area construction activities could directly affect these special-status marsh birds and the habitats that they rely upon. Use of heavy equipment for site preparation/mobilization, demolition, and shoreline protection construction could result in injury or mortality of adults,

eggs, and/or chicks and construction of flood control features could either temporarily or permanently alter hydrology in marshes and eliminate high-tide refugia needed to evade predation, reducing habitat quality for these species and affecting their ability to survive. All construction activities could cause disruption of foraging behavior, and may also cause disturbance to breeding adults, potentially resulting in abandonment of active nests and/or chicks.

Text on page 3.4-46 has been revised as follows:

During the construction phase, a total of approximately 8.227.76 acres of tidal northern coastal salt marsh, 0.65 acre of non-tidal/muted tidal northern coastal salt marsh, 5.31 acres of managed pond, 0.14 acre of muted tidal open water, and 2.55 acres of ruderal levee slope habitat for these two species would be affected in the Program area (Table 3.4-4), including within the Dumbarton Approach Reach (Figure 3.4-2g), the southern terminus of Ravenswood Slough adjacent to Pond R3 in the Tech Campus Reach (Figure 3.4-2n), Bayfront Expressway Reach (Figures 3.4-2n-s), and the Marsh Road Reach (Figures 3.4-2t-v).

Text on page 3.4-46 has been revised as follows:

During the construction phase, a total of approximately 26.4225.59 acres that are used by birds for nesting or foraging would be affected in the Program area (Table 3.4-4) throughout all Program area reaches (Figure 3.4-2).

Text in Mitigation Measure BIO-18 on page 3.4-50 has been revised as follows:

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 additional necessary measures, which may include buffers, to prevent construction from impacting broods of precocial young.

Text on page 3.4-56 has been revised as follows:

During the construction phase, a total of approximately 26.4225.89 acres that are used by non-breeding special-status and non-special-status bird species for foraging or roosting would be affected in the Program area (Table 3.4-4), including within areas where these species may be found throughout the Program area reaches (Figure 3.4-2).

Text on page 3.4-60 has been revised as follows:

> During the construction phase, a total of approximately 0.11 acre of tidal brackish marsh, 8.227~~.76~~ acres of tidal northern coastal salt marsh, and 0.65 acre of non-tidal northern coastal salt marsh potentially suitable for these species would be affected in the Program area (Table 3.4-4).

Text on page 3.4-63 has been revised as follows:

> During the construction phase, a total of 1.3629~~ ~~acres of tidal open water, 0.15 acre of intertidal mudflat, 8.227~~.76~~ acres of tidal northern coastal salt marsh, 5.31 acres of managed pond, and 0.65 acre of non-tidal northern coastal salt marsh habitats providing potential habitat for the Pacific harbor seal and California sea lion would be affected in the Program area (Table 3.4-4).

Text in Mitigation Measure BIO-25 on page 3.4-65 has been revised as follows:

> **Mitigation Measure BIO-25: Wildlife Exclusion Fencing.** This measure applies to all ~~the South of Bay Road, North of Bay Road, Dumbarton Approach, Substation and Marsh Restoration, and Bedwell Bayfront Park~~ 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.

Text on page 3.4-68 has been revised as follows:

> Construction-phase temporary impacts are shown on Figures 3.4-2 and summarized in Table 3.4-4. In total, up to 16.2515~~.72~~ acres of wetland and aquatic habitats may be affected during construction due to program-level Project activities.

Text on page 3.4-69 has been revised as follows:

> In total, there are up to 30.69 acres of permanent impacts on wetland and aquatic habitats from program-level components, and another 16.2515~~.72~~ acres would be temporarily affected during construction.

Text on pages 3.4-67 has been revised as follows:

> Affected channels are identified in Faber and Laumeister marshes, Ravenswood Open Space Preserve, Moseley Tract Marsh, and Ravenswood Slough.

Text in Mitigation Measure BIO-26 on page 3.4-75 has been revised as follows:

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.

Section 3.5, Cultural Resources

Text in Mitigation Measure CUL-3: Inadvertent Discovery of Cultural Resources, on Draft EIR page 3.5-17 is revised as follows:

> **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.

Text in Mitigation Measures CUL-4: Inadvertent Discovery of Human Remains, on Draft EIR page 3.5-18 is revised as follows:

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.

Section 3.9, Greenhouse Gas Emissions

Text in the second paragraph on page 3.9-19 is revised as follows:

Table 3.9-3 summarizes GHG emissions generated from construction activities associated with each Project component as well as the overall GHG emissions generated by all combined Project components during each year of construction. Emissions are presented by component, reach, and construction year. As shown in Table 3.9-3, over the construction duration of the Project between 2029 ~~2027~~ and 2034 ~~2031~~, construction-related off-road equipment and on-road vehicles would range from a minimum of 36 ~~520~~ $MTCO_2e$ per year in 2034 ~~2027~~ to a maximum of 5,559 ~~6,423~~ $MTCO_2e$ per year in 2031 ~~2030~~.

Section 3.10, Hazards and Hazardous Materials

Table 3.10-1 on page 3.10-2 is revised as follows:

The Peninsula Sportsmen's Club operated a skeet shooting range on the site from the 1939 until mid-1994. As a result of these activities, lead pellets and PAH-laden clay pigeon debris was distributed on surficial soil and sediment to a maximum depth of approximately 2 feet below ground surface. Lead pellets and clay pigeon debris were also deposited in a portion of the adjacent salt pond owned by the Cargill Salt Company (Cargill), and on/within the levee (also owned by Cargill) that divides the salt pond and SFPUC's property. The site has been subdivided into six distinct geographic/ecological areas, including the firing range area (southern site), clay pigeon stockpile area (central site), Cargill's levee (north-central site), seasonal wetlands (western site), tidal slough (eastern site), and the Cargill salt pond (northern site).

SFPUC completed remediation of the site in 2011. Remediation consisted of excavation of contaminated soils along with placement of a clay cap over remaining contaminated soils in the eastern portion of the site (at Firing Range East). ~~developed a~~ The remediation plan ~~that~~ also included semi-annual groundwater monitoring and a revegetation plan to be implemented after

remediation. ~~This extensive lead cleanup was completed in 2011 by~~ SFPUC ~~who~~ still owns the uplands portion of the affected property. Ownership of the salt pond portion of the property was transferred to the U.S. Fish and Wildlife Service after cleanup and incorporated into the Don Edwards National Wildlife Refuge.

Text in Mitigation Measure HAZ-2 on page 3.10-20 is revised as follows:

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 ~~Site~~ 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 contaminated 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, disposal by a qualified contractor if 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, ~~Uncontaminated~~ soil that meets beneficial reuse criteria may be reused onsite. Beneficial reuse criteria will consider the South Bay Salt Ponds Master Quality Assurance Project Plan for beneficial reuse and the San Francisco Bay Water Board's Environmental Screening Levels. ~~may be reused onsite.~~ 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.

Text in Draft EIR Impact HAZ-3 page 3.10-22 has been revised as follows:

South of Bay Road Reach

1990 Bay Road Sites

The 1990 Bay Road Site consists of multiple GeoTracker and EnviroStor sites described in Table 3.10-1. Construction of the levee along the South of Bay Road Reach would require ground disturbance within the boundaries of the 1990 Bay Road ~~Site~~ property (i.e., Assessor Parcel Nos. 063240420, 063122040, and 063122030) and in locations with contaminated soil and groundwater.~~, and therefore, p~~

Protocols from the 2020 CRMP described in Table 3.10-1 would apply to construction activities in the covered property ~~this~~ area ~~this area~~. As indicated in Table 3.10-1 and discussed in detail in Section 3.11, Hydrology and Water Quality, (Impact HYD-1) the CRMP sets forth management protocols that apply to the management of contaminated soil and groundwater during construction or development activities, including protocols that are required for any activity that disturbs or removes caps at the property.[2] Implementation of the management measures, including a dust control plan applicable throughout construction and intended to achieve a goal of no visible construction dust emissions that leave the property, are understood to protect human health, including onsite construction workers, nearby residents and workers, and the environment from potential impacts related to exposure to hazardous materials. Soil must be managed consistent with the soil management protocols, and temporary groundwater extraction (dewatering) from excavations would need to be stored, characterized, and disposed of at appropriate facilities (such as a local wastewater treatment facility). Prior to disposal, the water must be tested in accordance with requirements of the receiving facility. Refer to Impact HYD-1 for additional analysis related to handling hazardous soil and groundwater.

Following active cleanup measures, land-use restrictions were applied to the site to manage residual pollution. Deed restrictions intended to prevent exposure to arsenic-affected soil and groundwater restrict land use and prohibit intrusive work without the prior approval of the RWQCB, DTSC, StarLink Logistics, Inc., and property owners. In addition to agency approvals, final caps must be installed over the 1990 Bay Road Site at the end of construction. Levees are included as one of the types of final caps allowed by the construction risk management plan. Implementation of the management protocols identified in the 2020 construction risk management plan would protect human health, including onsite construction workers, nearby residents and workers, and the environment from potential impacts during ground disturbance within the 1990 Bay Road property.

During ground disturbance within areas of the 1990 Bay Road site (boundaries of contaminated soil or groundwater) but outside the 1990 Bay Road property, if proper precautions are not implemented, the public could be exposed to chemicals of concern through inhalation or contact with dust or contaminated runoff. However, the SAFER Bay Project would not be allowed to conduct any activities currently prohibited by existing land use covenants (including disturbing soil below the existing pavement) without DTSC or RWQCB approval. Land use covenants "run with the land," meaning they automatically apply to activities by future landowners.[3] In addition, implementation of Mitigation Measures HAZ-1 (Health and Safety Plan) and HAZ-2 (Soil Management Plan) would reduce the potential impact to the public or the environment, including by requiring soil testing and development of a Soil Management Plan that specifies how the construction contractor shall remove, handle, transport, and dispose of all excavated material in a

[2] S.S. Papadopulos and Associates, Inc., 2020. *Construction Risk Management Plan Addendum to the Comprehensive Site Management Plan, 1990 Bay Road Site*. December 2020.

[3] Land use covenants of this type run with the land pursuant to Civil Code section 1471 and/or Health and Safety Code sections 25202.5, 25355.5, or 25395.99 and shall continue in perpetuity unless modified or terminated in accordance with applicable law. (22 CCR Section 67391.1(d)).

safe, appropriate, and lawful manner prior to excavation in areas previously documented as having contaminated soil or groundwater.

With compliance with the CRMP~~, and~~ deed restrictions, and Mitigation Measures HAZ-1 and HAZ-2, the Project is not expected to create a significant hazard to the public or the environment by constructing near the 1990 Bay Road sites.

Text on page 3.10-23 is revised as follows:

Bay Road Holdings LLC (formerly Romic Environmental Technologies Corporation)-2081 Bay Road ~~Romic Environmental Technologies/Bay Road Holdings~~

The site at 2081 Bay Road in East Palo Alto (former Romic Environmental Technologies Sites consists ~~consist~~ of ~~multiple~~ GeoTracker and EnviroStor sites described in Table 3.10-1, and is a closed Superfund Site regulated by the U.S. Environmental Protection Agency. As discussed in detail in Section 3.11, Hydrology and Water Quality, (Impact HYD-1) the levee alignment in the North of Bay Road Reach would occur adjacent to 2081 Bay Road to avoid remediation infrastructure and capped areas. Documented soil and~~, where~~ groundwater contamination at the site consists of solvents, including dense non-aqueous phase liquid (DNAPL) that has migrated downward from the ground surface into the underlying aquifer. In addition, light non-aqueous phase liquid (LNAPL) is present in the northern part of the site. Ongoing remediation at this site consists of the following: soil cap, bioremediation using a groundwater recirculation system (starting in 2019), LNAPL recovery via six wells, and a biobarrier consisting of periodic injections of material via wells to promote in-place biodegradation in the eastern property boundary to minimize offsite migration of contaminants. Monitored Natural Attenuation is proposed after remediation systems have attained cleanup levels specified in the USEPA Record of Decision.

~~in the northern area of the property is currently being remediated with a groundwater recirculation system, biobarrier injection events, and light non-aqueous phase liquid recovery from a groundwater well at the northeastern area of the site. The groundwater that contains measurable contaminants has a very shallow gradient to the southeast.~~ Temporary groundwater dewatering during levee construction in this portion of the North of Bay Road Reach could temporarily counteract the effectiveness of the biobarrier ~~injection wells located along the northeastern boundary of the site (where contaminant concentrations are highest). Although Attachment J of the stormwater Construction General Permit includes dewatering requirements,~~d Discharge of water from dewatering is not permitted under the Construction General Permit if the dewatering takes place in an area with known soil and/or groundwater contamination where the contamination could cause an exceedance of receiving water limitations. If untreated, water produced from the dewatering process for the North of Bay Road Reach along the 2081 Bay Road property could release contaminants into the environment, resulting in a potentially significant impact. However, as described in Impact HYD-1, with implementation of **Mitigation Measure HYD-1b**, which details groundwater handling requirements, this impact would be reduced to a less-than-significant impact. In addition, as discussed in Impact HAZ-1, ground disturbance during construction, including in areas near 2081 Bay Road , could encounter contaminated soil and, if not properly controlled, could expose the public or environment to contaminants. Implementation of Mitigation Measures HAZ-1 (Health and Safety Plan) and HAZ-2 (Soil

Management Plan) would reduce the potential impact to the public or the environment, including by requiring soil testing, including real time soil screening tools such as a photoionization detector, and subsequent California ELAP laboratory confirmation of elevated field screen tests, or colorimetric tubes to be described in the development of 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 prior to excavation in areas documented as having contaminated soil and/or groundwater.

Section 3.11, Hydrology and Water Quality

Text on Draft EIR page 3.11-3 is revised as follows:

Faber Marsh is owned by the City of Palo Alto and managed by the Refuge, but is located within the City of East Palo Alto.

Laumeister Marsh is owned ~~and managed~~ by the City of Palo Alto and managed by the Refuge, but is located within the City of East Palo Alto.

Text in the first paragraph on page 3.11-4 is revised as follows:

Commercial production of salt in San Francisco Bay began in 1854, and by 1868, there were 18 salt companies along the San Francisco Bay; these companies eventually merged into Leslie Salt by the 1930s before later being purchased by Cargill, Incorporated (Cargill) ~~Corporation~~ in 1978. Cargill ~~Corporation~~ retained salt making rights on the ponds until 2003, when Ponds R1, R2, R3, R4, S5/R5, and SF2 (among others) were acquired by the U.S. Fish and Wildlife Service for restoration.

Text in the first paragraph under Flood Slough on Draft EIR page 3.11-5 has been revised as follows:

Flood Slough, ~~is~~ a large tidal slough, is the receiving channel for Bayfront Canal and extends bayward between Bedwell Bayfront Park and the Cargill-owned salt ponds before connecting with Westpoint Slough. ~~between the former salt ponds of the Ravenswood Pond Complex and existing salt ponds and other development to the west.~~

Text in the third header on page 3.11-5 is revised as follows:

Cargill ~~Corporation~~ Pond 7c

Text in the first header and paragraph on page 3.11-14 are revised as follows:

Cargill ~~Corporation~~ Pond 7c and Brine Channel ~~Line~~

Pond 7c and the associated brine channel ~~(or brine line)~~ bordering the pond are actively used for salt production.

Text on page 3.11-33 is revised as follows:

Most locations where the Project would place fill are within ponds or marsh that are part of Refuge-managed lands, where the Master QAPP would apply.~~;~~ Faber and Laumeister marshes are also

managed by the Refuge; however, ~~Faber and Laumeister marshes,~~ Ravenswood Open Space Preserve, Moseley Tract, Flood Slough, and Pond 7c are not within the Refuge.

Text in the Draft EIR footnote 78 on page 3.11-33 is revised as follows to reference the most recent version of the master quality assurance project plan:

> USFWS and H.T. Harvey (U.S. Fish and Wildlife Service and H.T. Harvey & Associates). 2024 ~~2021~~. *Master Quality Assurance Project Plan for Don Edwards San Francisco Bay National Wildlife Refuge*.

Text in the analysis of work at the South of Bay Road Reach in Draft EIR Impact HYD-1 (page 3.11-34) has been revised to clarify that, while portions of the South of Bay Road Reach levee could include ground disturbance within the 1990 Bay Road property, other portions of the levee would be constructed in areas where contamination exists but outside the property line as follows:

> South of Bay Road Reach
>
> Construction of the levee along the South of Bay Road Reach would require ground disturbance within the boundaries of contamination at the 1990 Bay Road site and in locations with contaminated soil and groundwater. In 2020, a CRMP was developed for portions of the 1990 Bay Road property ~~site~~ (including the ~~full~~ eastern boundary of the property ~~site~~, where the proposed levee would be constructed) which sets forth protocols for the management of pollutant-impacted soil and groundwater during construction or development activities.[4] Protocols from the 2020 CRMP would apply to construction in this area. Section 4 of the CRMP outlines the protocols that are required for any activity that disturbs or removes caps at the property. Implementation of the management measures are understood to protect human health, including onsite construction workers, nearby residents and workers, and the environment from potential impacts. The protocols include: replacement of caps (physical barriers to prevent exposure of underlying soil on the property, including asphalt pavement, geosynthetic clay liners, and other hardscape); access controls for areas where the caps have been removed; dust control; spill prevention; stormwater control; control of groundwater during operations; and soil management protocols. Additional mandated procedures include the following:
>
> - **Onsite Soil Management**. During construction, soil must be managed consistent with the soil management protocols. ~~Soil excavated is expected to be reused to limit offsite removal or disposal and can remain onsite if capped at the end of construction.~~ Soil stockpiled during construction must be located in close proximity to the work area or ultimate disposition area, within fenced or secure areas to prevent public access, and managed in accordance with the stormwater pollution prevention plan required by the CRMP and consistent with the requirements of the CGP, described above. Stormwater detention must be managed to minimize infiltration. Other specific practices that could be implemented include: grading to prevent stormwater from running offsite, installing stormwater control devices such as silt fences and other barriers around the site perimeter, and fuel storage that minimizes leakage (such as storage with secondary containment).

[4] S.S. Papadopulos and Associates, Inc.,2020. *Construction Risk Management Plan Addendum to the Comprehensive Site Management Plan, 1990 Bay Road Site.* December 2020.

- **Dewatering.** Project construction could require temporary groundwater extraction (dewatering) from excavations. Pursuant to the CRMP, standing water would need to be appropriately stored, characterized, and disposed of at an appropriate facility (such as a local wastewater treatment facility). Prior to disposal, the water must be tested in accordance with requirements of the receiving facility.
- **Imported soil** must meet the category 1 fill criteria specified in Section 4.5.3 of the CRMP. This fill must consist of clean imported material that meets the soil import criteria for unrestricted use specified in Appendix A of the CRMP.
- **Final caps** must be installed over the 1990 Bay Road site at the end of construction. Levees are included as one of the types of final caps allowed by the CRMP.

Segments of the proposed Project in the South of Bay Road Reach but outside of the 1990 Bay Road property could also require dewatering and potentially encounter contaminated groundwater (as discussed in greater detail in Section 3.10, Hazards and Hazardous Materials). Implementation of Mitigation Measure HYD-1b (Groundwater Handling Requirements) would reduce the potential effect of handling contaminated groundwater by requiring temporary storage, sampling, and proper disposal to avoid releasing contaminants into the environment.

Implementation of the management protocols required by the 2020 CRMP and Mitigation Measure HYD-1b would protect human health, including onsite construction workers, nearby residents and workers, and the environment from potential water quality impacts.

Draft EIR Mitigation Measure HYD-1b (Groundwater Handling Requirements) on page 3.11-36 has been revised to address potential groundwater dewatering in portions of the South of Bay Road Reach as follows:

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.

Text in the mitigation measure on Draft EIR page 3.11-48 has been revised as follows:

> **Mitigation Measure HYD-2a: Runnymede Street Stormwater Management ~~Pump Station Design~~**
>
> 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 ~~the Runnymede Pump Station~~ 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 ~~Runnymede Pump Station~~ shall be operational prior to construction of the North of Bay Road shoreline protection.

Text on page 3.11-49 is revised as follows to incorporate an analysis of the potential for the sheet pile walls to interact with groundwater:

> ~~While the Project would not cause shallower groundwater levels, the Project's addition of drainage area to the O'Connor Pump Station watershed, discussed above, could exceed the capacity of the existing pump station and worsen flooding. Implementation of Mitigation Measure HYD-2a (Runnymede Pump Station Design) would reduce this impact by ensuring that the planned Runnymede Pump Station would discharge to the outboard side of the proposed levee. The planned Runnymede Pump Station would provide additional drainage capacity to the stormwater drainage system such that flooding would not be worsened.~~
>
> As shown in Table 2-3, sheet pile walls would be included in the levee design to reduce the amount of anticipated levee settlement along approximately 35 percent of the levee alignment. The sheet pile would penetrate through the Bay Mud layer, which varies in vertical thickness from 10 to 25 feet along the Project alignment, and then extend another 10 to 15 feet into the more consolidated layer of alluvium below the Bay Mud. The combined resistance of the sheet pile to further penetration into the Bay Mud and the underlying alluvium (which is less prone to settlement than Bay Mud) would reduce settlement of the levee and differential settlement of adjoining areas.
>
> For most of its depth below ground, the sheet pile would either penetrate the levee itself or the Bay Mud immediately below the levee. Both soil layers would have (in the case of soil type and compaction standards for the levee) or already have (because of the fine-grained clay soils which make up Bay Mud) very low hydraulic conductivity. For example, the hydraulic conductivity of Bay Mud estimated from well log data is 0.0015 ft/day.[103a] Because the existing hydraulic conductivity in much of the soil that the sheet piles would penetrate is already so low, the sheet piles would not substantially change the absolute groundwater flow rates through the Bay Mud layer.
>
> Based on initial geotechnical analysis, the current preliminary design estimates that the sheet pile wall could extend 10 to 15 feet into the medium-grained alluvium layer below the Bay Mud. For

a typical thickness of the alluvium layer in the Project area of approximately 50 feet, the sheet pile would extend less than halfway through the alluvium layer.

The sheet pile that penetrates through the Bay Mud and partially into the alluvium layer would not be contiguous along the SAFER alignment. At most, up to 35 percent of the alignment may have sheet pile extending through the Bay Mud. As shown in revised Table 2-3, sheet pile walls would be included in the full length of the South of Bay Road Reach, approximately one-third of the Dumbarton Approach Reach (along the frontage roads on either side of and under SR 84), and the full length of the Tech Campus Reach. For the reasons discussed above, the presence of a sheet pile wall associated with the Project along the South of Bay Road Reach, Dumbarton Approach Reach, and Tech Campus Reach are unlikely to substantially alter existing groundwater flow through the low hydraulic conductivity Bay Mud. However, additional discussion pertinent to each reach is included below.

Potential effects of the sheet pile wall along the South of Bay Road Reach would be further reduced due to the drainage channel along the inboard toe of the proposed levee which controls nearby shallow groundwater levels. Currently the Runnymede-O'Connor drainage channel parallels the existing berm along the southern half of the South of Bay Road Reach and functions as a drain for both surface and a control for groundwater levels. The section of the existing channel between Garden Street and Runnymede Street would be re-located slightly landward, to make space for the proposed levee while also preserving the channel's conveyance and groundwater control functions. With this channel setting groundwater levels along its length, the effect of the proposed sheet pile wall on groundwater movement or emergence would be further lessened. Between Weeks Street and Bay Road, an existing underground barrier wall already blocks groundwater from flowing toward San Francisco Bay (associated with remediation of contaminated groundwater at 1990 Bay Road). The Project's sheet pile walls would be located bayward of the existing underground barrier wall and therefore are unlikely to affect groundwater flow or direction in this location.

The proposed sheet pile wall along the Dumbarton Approach Reach would form a "U" shape around the SR 84 frontage roads. Most of the sheet pile would be along the two east-west legs of the "U", which are parallel to the general groundwater flow path eastward from the land to the bay, and therefore have less impact on groundwater flows outside of the immediate vicinity of this sheet pile wall segment. Within the "U", the contributing watershed is relatively small, consisting primarily of Highway 84 and its frontage roads. This area is drained by two Caltrans pump stations. This location is surrounded by marshes (Moseley Tract) and managed ponds (SF2) which are already inundated tidally or seasonally by shallow surface water that is directly connected to the groundwater. Due to the configuration of the sheet pile walls, the large expanse of surrounding marsh and managed ponds, and the existing pump stations, the sheet pile walls in this location are unlikely to substantially affect existing groundwater flow. No contaminated sites are present in this area.

The proposed sheet pile wall along the Tech Campus Reach is located bayward of other development on a minor peninsula. The campus is serviced by its own existing stormwater network that functions as drainage for both surface and groundwater and conveys these flows to the undeveloped detention area surrounding Ravenswood Pump Station, where it is then pumped to the bay. Existing or proposed drainage infrastructure identified in Draft EIR Table 3.11-6

would continue to convey water from this area to the bayward side of the levee. Any small changes in groundwater flow attributed to the sheet pile would be readily accommodated by additional infiltration into the stormwater system and pumping from the nearby detention basin. No contaminated sites are present along the Tech Campus Reach.

Overall, the effect of the sheet pile wall on groundwater flow rates for existing conditions is likely to be relatively minor, due to the sheet pile wall locations along the Project alignment, the proportion of the alignment that include sheet pile walls (approximately 35 percent), and because the sheet pile would likely be penetrating through Bay Mud, which already has very low hydraulic conductivity. Therefore, the sheet pile walls are not expected to create or contribute water which would exceed the capacity of existing or planned stormwater drainage systems or impede or redirect flood flows or substantially degrade surface or groundwater quality.

New footnote 103a has been added to pages 3.11-49 through 3.11-50 as follows:

103a County of San Mateo, 2018. San Mateo Plain Groundwater Basin Assessment. July 2018.

Section 3.12, Land Use, Agriculture, and Forestry Resources

Table 3.12-1 on page 3.12-3 is revised as follows:

Reaches	Existing Use within Reach
North of Bay Road	Bay Trail, Ravenswood Open Space Preserve, Demeter Street Property, abandoned SamTrans railroad right-of-way ~~Southern Pacific Railroad~~

Section 3.13, Noise and Vibration

Table 3.13-8 has been revised, as follows:

TABLE 3.13-8
DAYTIME NOISE LEVELS FROM CONSTRUCTION IN THE SOUTH OF BAY ROAD REACH

Representative Receptor	Existing Daytime Noise Level (dBA L_{eq})	Loudest Two Noise Sources	Reference Noise Level (dBA)[a]	Distance to Receptor (feet)[b]	Usage Factor	Adjusted L_{eq} Level Contribution (dBA)[c]	Exceed 90 dBA L_{eq} Daytime Standard?	Sum of Construction Noise Level and Existing (dBA)[d]	Increase over Existing Noise Level (dBA)
Pile Driving of Sheet Piles									
Runnymede Street Residences	–	Impact Pile Driver	101	45	20%	95	Yes	NA	NA
	–	Forklift	83	45	40%	80	No	NA	NA
	59	Combined Total	NA	45	NA	95	Yes	95	+36
East Palo Alto Charter School	–	Impact Pile Driver	101	170	20%	83	No	NA	NA
	–	Forklift	83	170	40%	69	No	NA	NA
	59	Combined Total	NA	170	NA	83	No	83	+24

Representative Receptor	Existing Daytime Noise Level (dBA L_{eq})	Loudest Two Noise Sources	Reference Noise Level (dBA)[a]	Distance to Receptor (feet)[b]	Usage Factor	Adjusted L_{eq} Level Contribution (dBA)[c]	Exceed 90 dBA L_{eq} Daytime Standard?	Sum of Construction Noise Level and Existing (dBA)[d]	Increase over Existing Noise Level (dBA)
Demolition									
Runnymede Street Residences	–	Roto Miller	85	60	50%	80	No	NA	NA
	–	Grader	85	60	40%	79	No	NA	NA
	59	Combined Total	NA	60	NA	83	No	83	+24
East Palo Alto Charter School	–	Roto Miller	85	185	50%	71	No	NA	NA
	–	Grader	85	185	40%	70	No	NA	NA
	59	Combined Total	NA	185	NA	73	No	73	+14
Grading									
Runnymede Street Residences	–	Tractor	84	60	40%	78	No	NA	NA
	–	Grader	85	60	40%	79	No	NA	NA
	59	Combined Total	NA	60	NA	82	No	82	+23
East Palo Alto Charter School	–	Tractor	84	185	40%	69	No	NA	NA
	–	Grader	85	185	40%	70	No	NA	NA
	59	Combined Total	NA	60	NA	72	No	72	+13

NOTES: dBA = A-weighted decibels; L_{eq} = equivalent sound level; NA = not applicable

a. The instantaneous maximum noise level (L_{max}) at 50 feet.
b. Distance between the approximate location of equipment and the property line of the sensitive receptor for residential uses and the exterior building façade for school uses.
c. The L_{eq} level is adjusted for distance and percentage of usage.
d. This resultant noise level is the logarithmic sum of the existing noise level with the contribution of the construction activity.

SOURCES: FHWA (Federal Highway Administration), 2006. *Roadway Construction Noise Model User's Guide*; data compiled by Environmental Science Associates in 2025 (see Appendix NOI).

Text on page 3.13-23 is revised as follows:

Tech Campus Reach

Table 3.13-11 presents the results of the RCNM modeling for construction in the Tech Campus Reach, showing predicted noise levels at the nearest sensitive land use. Construction noise generated by pile driving and grading and closeout activities would be as close as approximately 960 feet from the 777 Hamilton Apartments in the city of Menlo Park. Activities during the site preparation phase would be similar to, or less than, those associated with grading phase. As indicated in Table 3.13-11, noise at the nearest receptor during pile driving, grading, and closeout activities would be 69 dBA, 59 dBA, and 58 dBA, ~~respectively,~~ which is less than FTA's daytime criterion of 90 dBA L_{eq} for residential uses. ~~Additionally,~~However, as shown in Table 3.13-11, this would result in an increase of more than 10 dBA over existing daytime ambient levels for the grading phase.

TABLE 3.13-11
DAYTIME NOISE LEVELS FROM CONSTRUCTION IN THE TECH CAMPUS REACH

Representative Receptor	Existing Daytime Noise Level (dBA L_{eq})	Loudest Two Noise Sources	Reference Noise Level (dBA)[a]	Distance to Receptor (feet)[b]	Usage Factor	Adjusted L_{eq} Level Contribution (dBA)[c]	Exceed 90 dBA L_{eq} Daytime Standard?	Sum of Construction Noise Level and Existing (dBA)[d]	Increase over Existing Noise Level (dBA)
Pile Driving during Sheet Piles/Structural Elements									
777 Hamilton Apartments	–	Forklift	83	960	40%	54	No	NA	NA
	–	Impact Pile Driver	101	960	20%	69	No	NA	NA
	57	Combined Total	NA	960	NA	69	No	69	+12
Grading									
777 Hamilton Apartments	–	Grader	85	960	40%	55	No	NA	NA
		~~Impact Pile Driver~~	~~101~~	~~960~~	~~20%~~	~~69~~	~~No~~	~~NA~~	~~NA~~
	57	Combined Total	NA	960	NA	~~69~~55	No	~~69~~59	~~+1~~22
Closeout									
777 Hamilton Apartments	–	Forklift	83	960	40%	54	No	NA	NA
	–	Other	85	960	50%	56	No	NA	NA
	57	Combined Total	NA	**960**	NA	58	No	61	+4

NOTES: dBA = A-weighted decibels; L_{eq} = equivalent sound level; NA = not applicable

a. The instantaneous maximum noise level (L_{max}) at 50 feet.
b. Distance between the approximate location of equipment and the property line of the sensitive receptor.
c. The L_{eq} level is adjusted for distance and percentage of usage.
d. This resultant noise level is the logarithmic sum of the existing noise level with the contribution of the construction activity.

SOURCES: FHWA (Federal Highway Administration), 2006. *Roadway Construction Noise Model User's Guide*; data compiled by Environmental Science Associates in 2025 (see Appendix NOI).

Text on page 3.13-30 has been revised as follows:

> Operation and maintenance activities would result in an estimated two truck trips per month, which would be distributed along local roadways to U.S. 101 and SR 84. ~~Using the algorithms of the FHWA traffic noise model, these truck trips would contribute approximately 62 dBA to the hourly noise level along the local roadways used to access the locations~~. This amount of traffic (two truck trips per month) would not result in a substantial increase in noise because Caltrans considers a doubling of traffic volumes to result in a +3 dBA increase in noise levels and the existing regional and local roadways used to access the site carry hundreds and thousands of vehicles per day. ~~This relatively minor noise contribution would not be expected to substantially increase roadside noise levels, given the presence of the adjacent freeway.~~ Because of the limited number of expected daily truck trips, the impact related to an increase in ambient noise levels during operation and maintenance would be **less than significant.**

Section 3.16, Transportation

Text under *Transit Service* on pages 3.16-2 and 3.16-3 is revised as follows:

> Transit facilities that provide direct access to the Project sites are limited. The San Mateo County Transit District (SamTrans) and Alameda-Contra Costa Transit District operate ~~operates~~ the following services near the Project area:[5]
>
> - *SamTrans Route 81* is a school-oriented route that traverses East Palo Alto, providing service near the South of Bay Road and North of Bay Road reaches.
> - *Alameda-Contra Costa Transit* ~~SamTrans~~ *Dumbarton Express Service Route* extends from Palo Alto to East Palo Alto and Menlo Park adjacent to the Dumbarton Approach and Substation Marsh Restoration reaches.
> - *SamTrans Route 397* is a cross-county, lifeline overnight service ~~an express route~~ that serves East Palo Alto, including portions of Bay Road and University Avenue, and extends north past Redwood City.
> - *SamTrans Route 280* serves Palo Alto and East Palo Alto, extending from the Palo Alto Transit Center to Purdue/Fordham adjacent to the North of Bay Road reach.
> - *Sam Trans Route 296* provides service through Redwood City, Menlo Park, and East Palo Alto. This route provides connections to SamTrans EPX and 280 routes.
> - *SamTrans EPX Route* extends north–south from San Francisco through San Bruno and to East Palo Alto near the North and South of Bay Road reaches.
> - *SamTrans Ride Plus Service* is an on-demand service offering transportation for riders in Half Moon Bay/El Granada and East Palo Alto/Belle Haven neighborhood of Menlo Park.

Text in Mitigation Measure TRA-1: Implement Traffic Control Plan, on page 3.16-12 is revised as follows:

> **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

[5] SamTrans (San Mateo County Transit District), 2025. "Schedules & Maps." Available online at: www.samtrans.com/schedulesmaps?active_tab=route_map_tab&center=-122.39822%7E37.70741&zoom=11.00&suggested_routes=12169%7E713%7EFCX%7EEPX%7Ecaltrain%7E292%7E397&map_query=-122.39822%7E37.70741.

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.

Section 3.17, Utilities, Service Systems, and Public Services

The first sentence under *West Bay Sanitary District* on Draft EIR page 3.17-2 has been revised, as follows:

> West Bay Sanitary District provides wastewater collection, recycled water services, and conveyance services to Menlo Park, Atherton, and Portola Valley; areas of East Palo Alto and Woodside; and portions of unincorporated Santa Clara and San Mateo counties.

A second paragraph has been added under *East Palo Alto Sanitary District* on Draft EIR page 3.17-3, as follows:

> As of October 1, 2024, the East Palo Alto Sanitary District became a subsidiary district of the City of East Palo Alto. This action was approved by the San Mateo Local Agency Formation Commission (LAFCo) on November 23, 2023, and finalized on September 16, 2024. LAFCo's approval of the subsidiary district recognized the need for improved transparency in EPASD governance and sustainable and efficient operation of EPASD. As a subsidiary district of the City, EPASD will continue to operate with the City Council as the Board of Directors and the City Manager as General Manager.

Text under *Palo Alto* on Draft EIR page 3.17-6 has been revised, as follows:

> Although none of the Project components are within Palo Alto, the Laumeister and Faber marshes are owned by the City of Palo Alto and managed by the City and the Don Edwards National Wildlife Refuge (Refuge). For emergency services, the Refuge maintains relationships with the East Palo Alto Police Department and Menlo Park Fire Protection Services. ~~and would therefore~~

~~be managed by~~. ~~is serviced by the Palo Alto Police Department. The Palo Alto Police Department is located at 275 Forest Avenue, Palo Alto.~~

New text has been added as part of the third bullet point under *Parks and Recreational Facilities* on Draft EIR page 3.17-7, as follows:

> The City of Palo Alto owns and operates the Baylands Nature Preserve, which includes the Laumeister and Faber marshes in East Palo Alto. The Refuge, under a cooperative agreement the City of Palo Alto, manages the Faber-Laumeister Unit.

4.2.5 Chapter 4, Alternatives

No revisions were made to this chapter.

4.2.6 Chapter 5, Other CEQA Issues

No revisions were made to this chapter.

4.2.7 Chapter 6, Report Preparers

No revisions were made to this chapter.

4.2.8 Appendices

Appendix BIO3

Minor revisions were made to Appendix BIO3, Habitat Restoration Basis of Design Report, which is presented in this document as Appendix BIO3-REV.

Appendix BIO4

The following table on page BIO4-3 has been revised as follows:

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TABLE BIO4-3
IMPACTS ON HABITAT – PROGRAM-LEVEL COMPONENTS – DUMBARTON APPROACH REACH

Jurisdictional Habitat	Habitat Type	Construction-Phase Temporary Impacts Associated with Shoreline Protection Infrastructure (acres)	Permanent Impacts (acres)					
			Flood Protection Infrastructure	Operation and Maintenance Road	Loss of Tidal Action	Total[a]	Tidal Marsh to Reestablish After 50 Years SLR[b] on Bay Edge	Net loss of Wetland and Aquatic Habitats[c]
Open Water	Culvert/Riprap	0.03	0.04			0.04		0.04
	Detention Basin/Canal							
	Intertidal Mudflats	0.14						
	Muted Tidal Open Water	0.13	0.36	0.01		0.37		0.37
Managed Pond	Managed Pond	0.79	0.83			0.83		0.83
Non-tidal wetlands	Saline Seasonal Wetland	0.02	0.15	0.04		0.18		0.18
	Non-Tidal/Muted Tidal Northern Coastal Salt Marsh	0.38	1.16	0.09		1.25		1.25
Upland	Landscaped/Developed	0.81	0.12	0.02		0.14		
	Ornamental Woodland (Riparian)							
	Ornamental Woodland (Upland)							
	Ruderal Levee Slope	0.06	0.36	0.01		0.38		
	Ruderal Upland	2.04	3.37	0.80		4.17		
Tidal wetlands	Tidal Brackish Marsh							
	Tidal Northern Coastal Salt Marsh	2.462.00	2.67		0.80	3.47	0.51	2.16
	Tidal Open Water	0.160.09	0.47			0.47	0.16	0.31
Total Impacts on Wetland/Aquatic Habitats[d]		**4.123.58**	**5.67**	**0.14**	**0.80**	**6.61**	**0.67**	**5.14**
Total Impacts		**7.036.50**	**9.53**	**0.98**	**0.80**	**11.30**	**0.68**	**NA**

Notes:

a. Numbers may not sum due to rounding.
b. SLR = Sea Level Rise
c. Net loss is calculated as follows: (Total Permanent Impacts) – (Tidal Marsh to Reestablish after 50 Years SLR on the Bay Edge) – (Loss of Tidal Action) = Net Loss of Wetland and Aquatic Habitats. This is because tidal marsh to reestablish after 50 years would constitute wetland or aquatic habitat in the long term, and because non-tidal wetlands are expected to persist in the areas assessed as Loss of Tidal Action.
d. Open water, managed pond, non-tidal wetlands, and tidal wetlands.

Source: H.T. Harvey & Associates 2025

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4.2.9 Revised Figures

These figures have been revised and are provided on the following pages:

- Figure 2-9, Representative Photos of North of Bay Reach
- Figure 2-10, North of Bay Road Reach Plan
- Figure 2-13, Dumbarton Approach Reach Plan
- Figure 2-15, Typical Section: Dumbarton Approach Reach Under State Route 84
- Figure 2-17, Substation and Marsh Restoration Reach Plan
- Figure 2-20, Tech Campus Reach Plan
- Figure 2-22, Bayfront Expressway Reach Plan
- Figure 2-24, Bedwell Bayfront Park Reach Plan
- Figure 2-25, Marsh Road Reach Plan
- Figure 3.1-1, Cumulative Projects Location and Components
- Figure 3.4-2a, Program-Level Components - Existing Habitat Map Index
- Figure 3.4-2h, Program-Level Reaches
- Figure 3.4-2i, Program-Level Reaches
- Figure 3.4-2t, Program-Level Reaches
- Figure 3.4-2u, Program-Level Reaches
- Figure 3.4-2v, Program-Level Reaches
- Figure 3.4-3a, Project-Level Components - Existing Habitat Map Index
- Figure 3.4-4i, Habitat Map

View A: Drainage channel west of Bay Trail facing northwest.

View B: 2081 Bay Road and adjacent property from Bay Trail facing west.

Viewpoint locations shown on Figure 2-10

View C: End of Steven Avenue facing east towards Ravenswood Open Space Preserve.

View D: Bay Trail Boardwalk north of Ravenswood Open Space Preserve facing east towards transmission towers and overhead power lines.

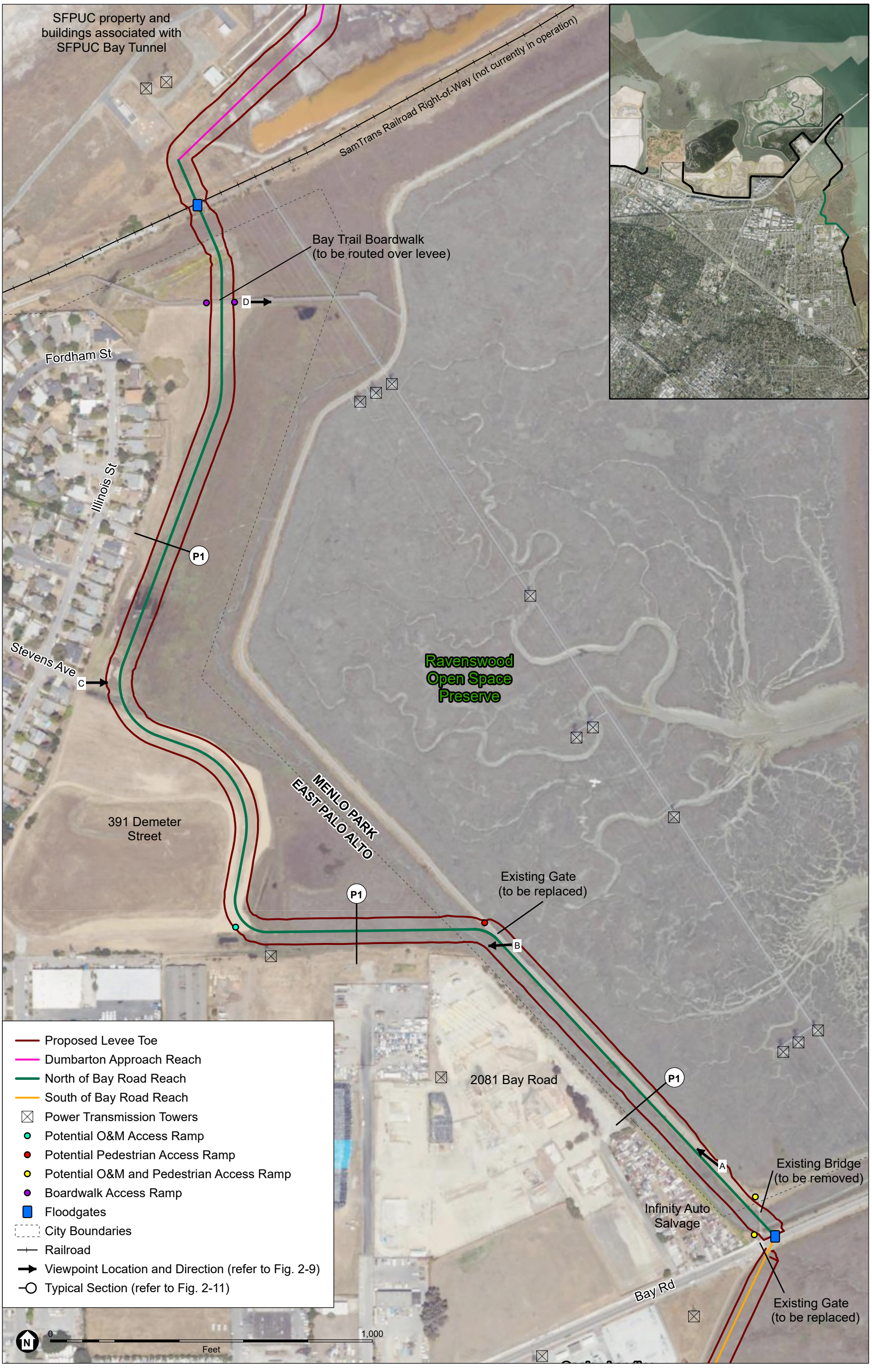
2011\D211919 - SAFER Bay\Graphics\Illustrator

SOURCE: S. Villegas and V. Molina, March 26, 2024

SAFER Bay Project

Figure 2-9
Representative Photos of North of Bay Reach

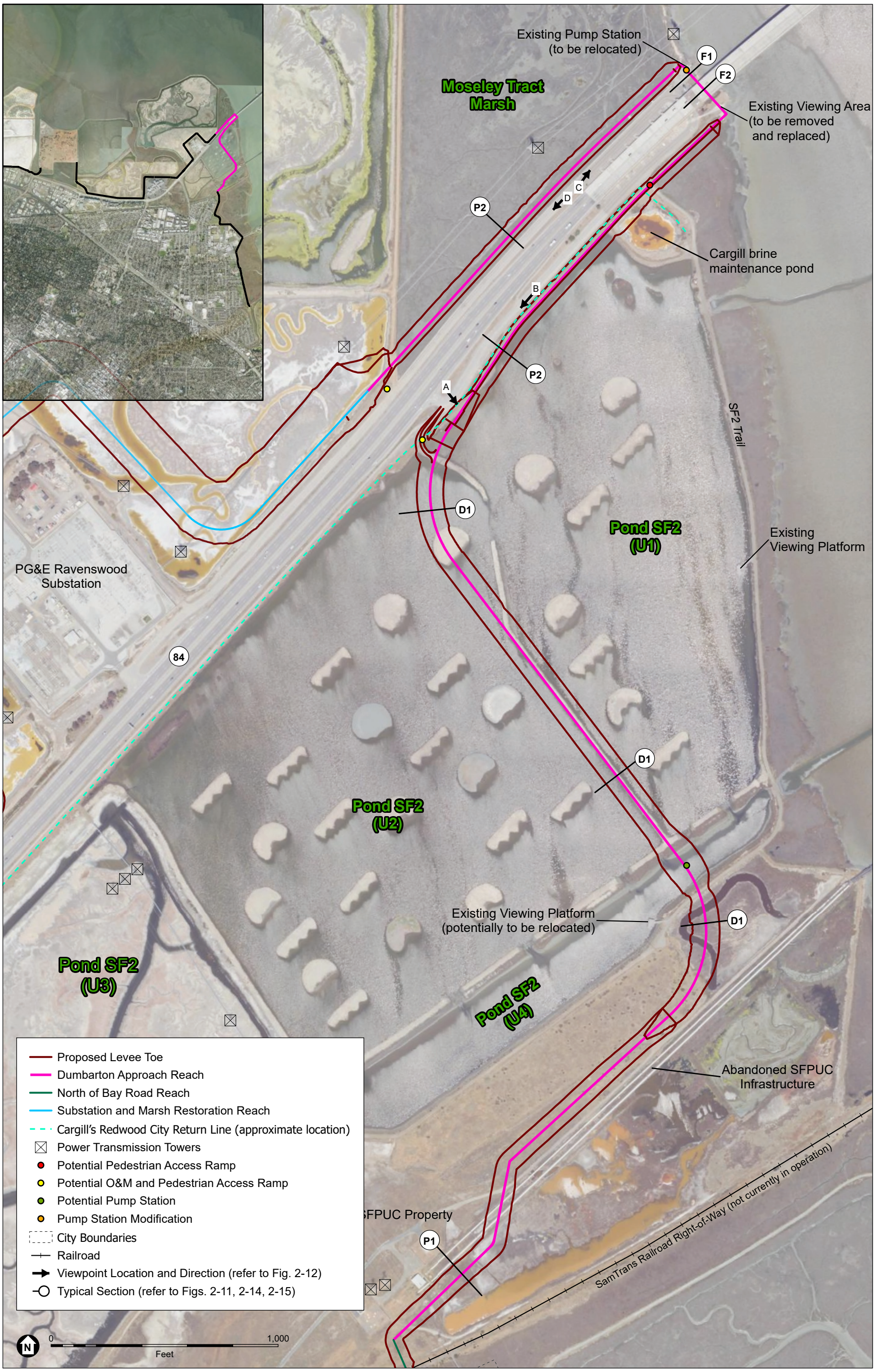
ESA



SOURCE: NAIP Imagery, 2024; HDR, 2024; ESA, 2025

SAFER Bay Project

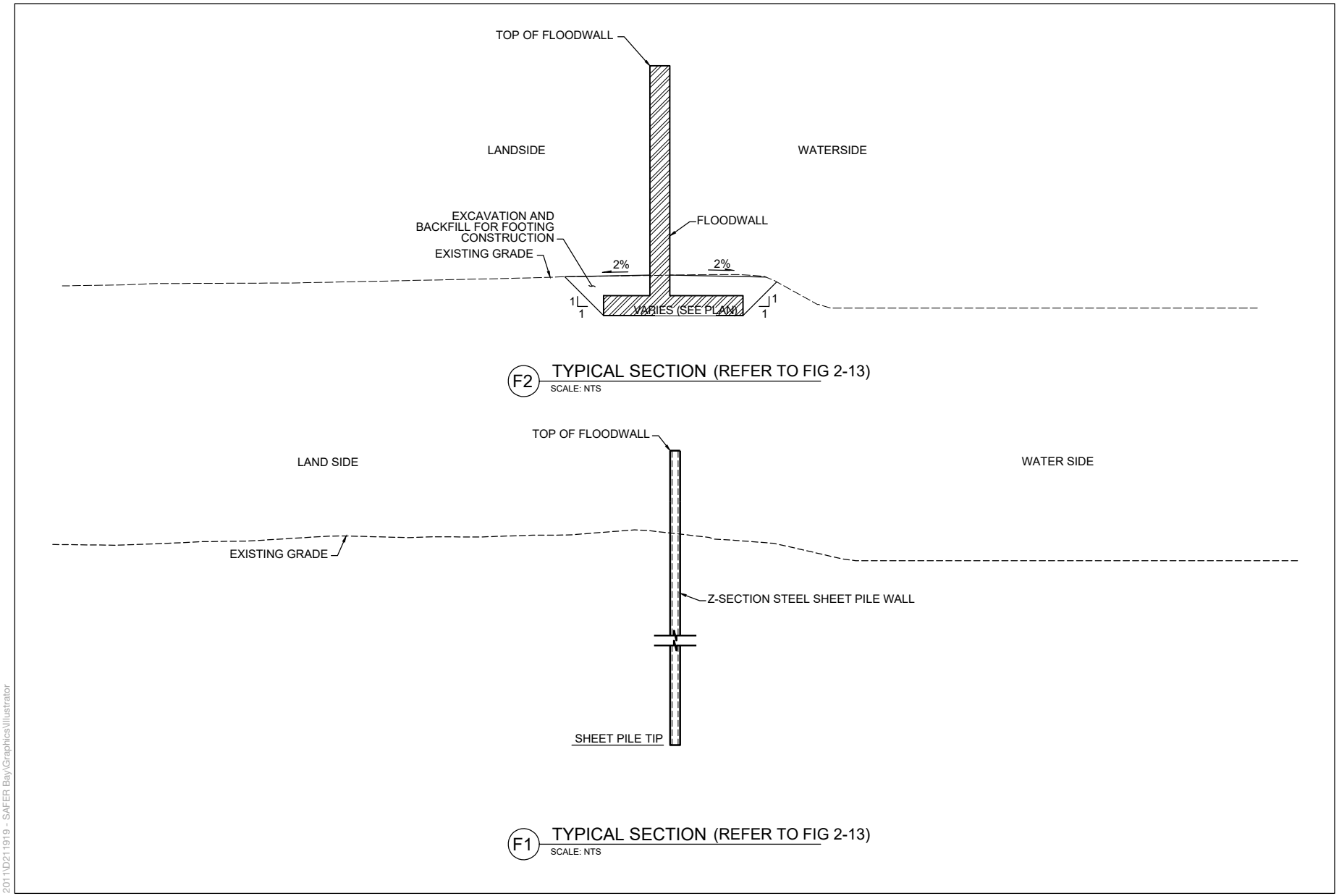
Figure 2-10
North of Bay Road Reach Plan



SOURCE: Location of return line provided by Cargill, 2026; NAIP Imagery, 2024; HDR, 2024; ESA, 2026

SAFER Bay Project

Figure 2-13
Dumbarton Approach Reach Plan



2011\D211919 - SAFER Bay\Graphics\Illustrator

SOURCE: HDR, July 2024

SAFER Bay Project

Figure 2-15
Typical Section: Dumbarton Approach Reach
Under State Route 84

ESA

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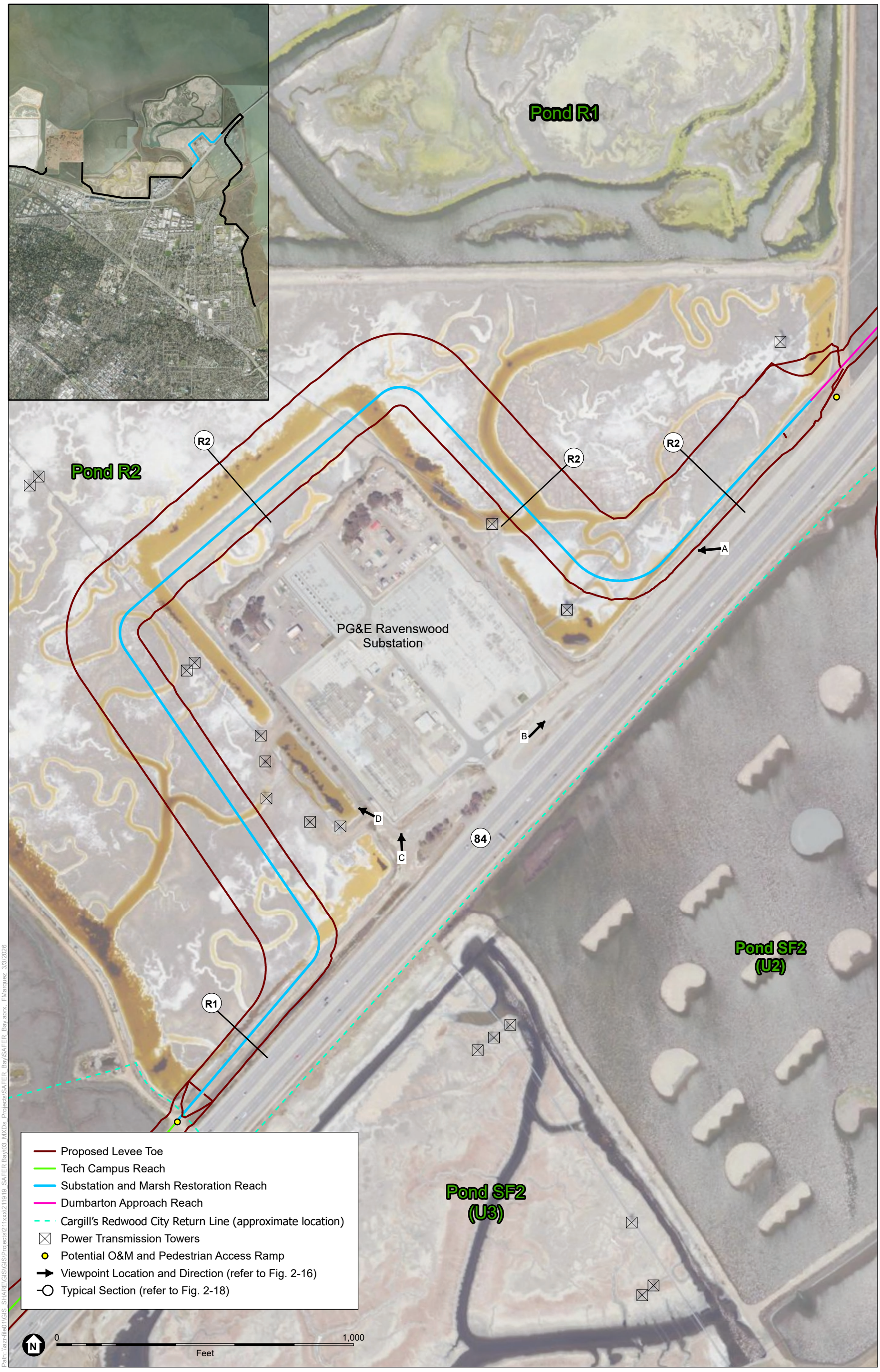


SOURCE: Location of return line provided by Cargill, 2026; NAIP Imagery, 2024; HDR, 2024; ESA, 2026

SAFER Bay Project

Figure 2-17
Substation and Marsh Restoration Reach Plan

SOURCE: Location of return line provided by Cargill, 2026; NAIP Imagery, 2024; HDR, 2024; ESA, 2026

SAFER Bay Project

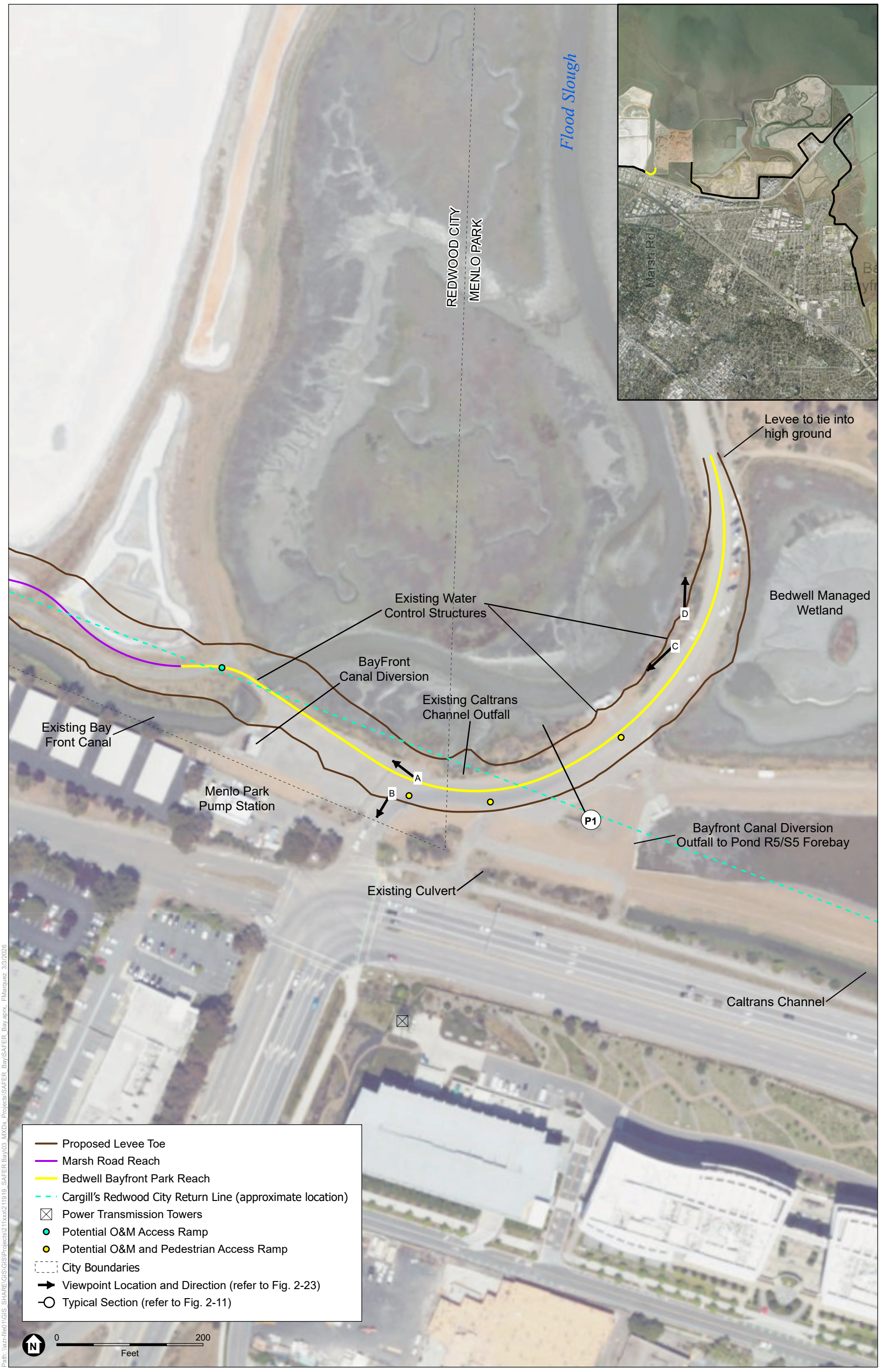
Figure 2-20
Tech Campus Reach Plan

SOURCE: Location of return line provided by Cargill, 2026; NAIP Imagery, 2024; HDR, 2024; ESA, 2026

SAFER Bay Project

Note: The northeastern levee of Pond R4 was breached to tidal action in December 2023 as part of the South Bay Salt Pond Restoration Project. This figure does not reflect that levee breach.

Figure 2-22
Bayfront Expressway Reach Plan



SOURCE: Location of return line provided by Cargill, 2026; NAIP Imagery, 2024; HDR, 2024; ESA, 2026

SAFER Bay Project

Figure 2-24
Bedwell Bayfront Park Reach Plan

SOURCE: Location of return line provided by Cargill, 2026; NAIP Imagery, 2024; HDR, 2024; ESA, 2026

SAFER Bay Project

Figure 2-25
Marsh Road Reach Plan

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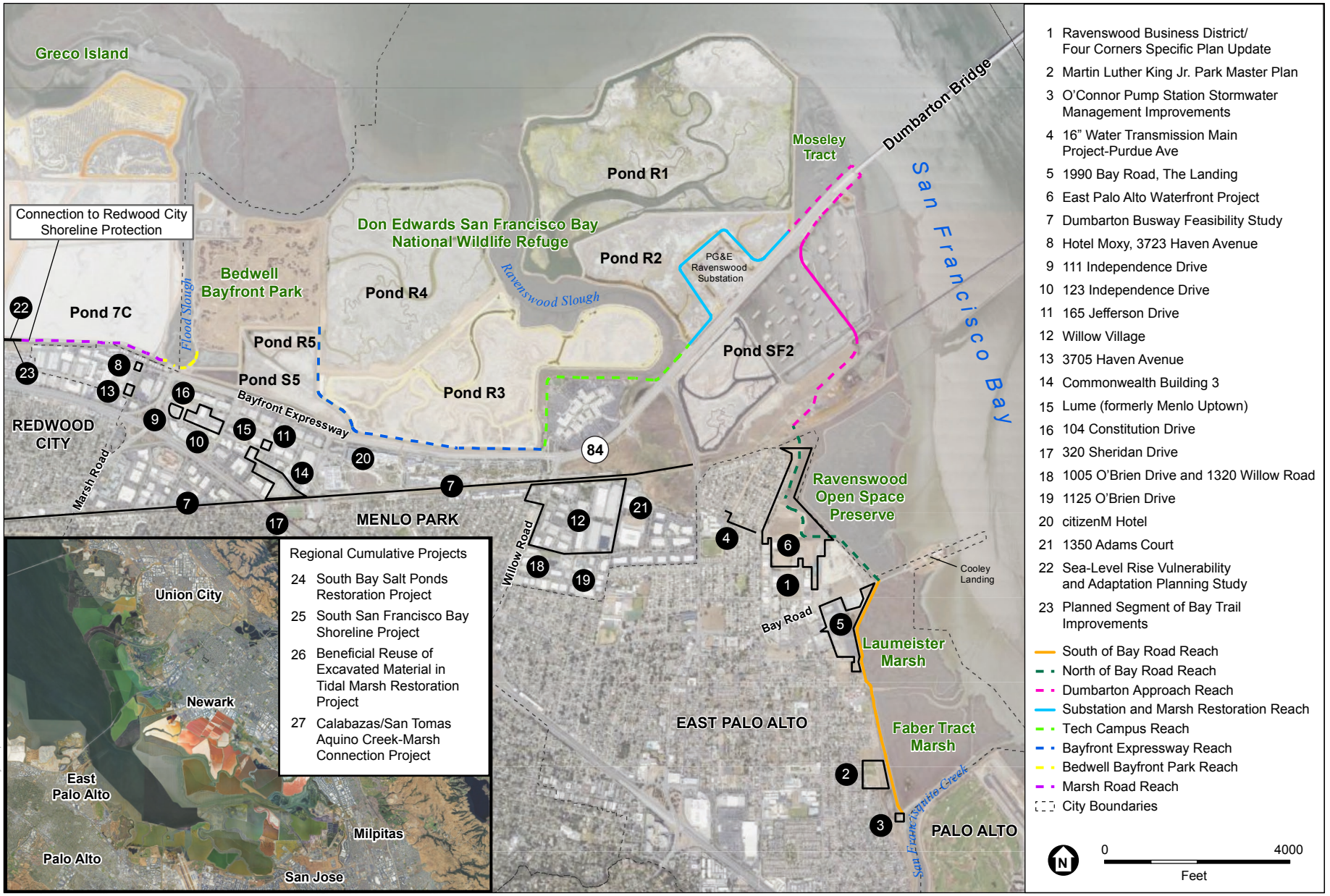


2011\D211919 - SAFER Bay\Graphics\Illustrator

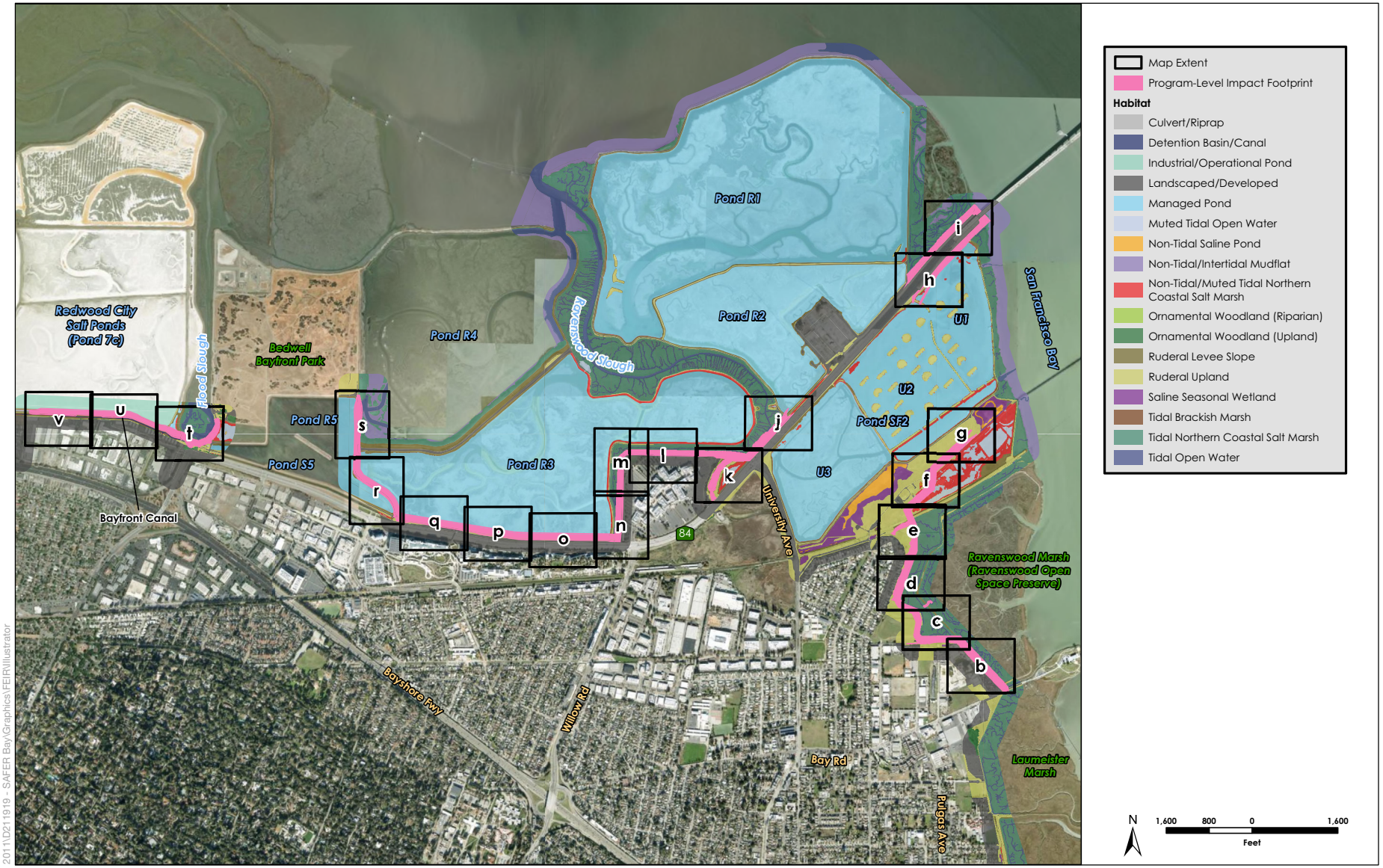
SOURCES: NAIP Imagery, 2024; HDR, 2024; ESA, 2025

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 3.1-1
Cumulative Projects Location and Components

ESA



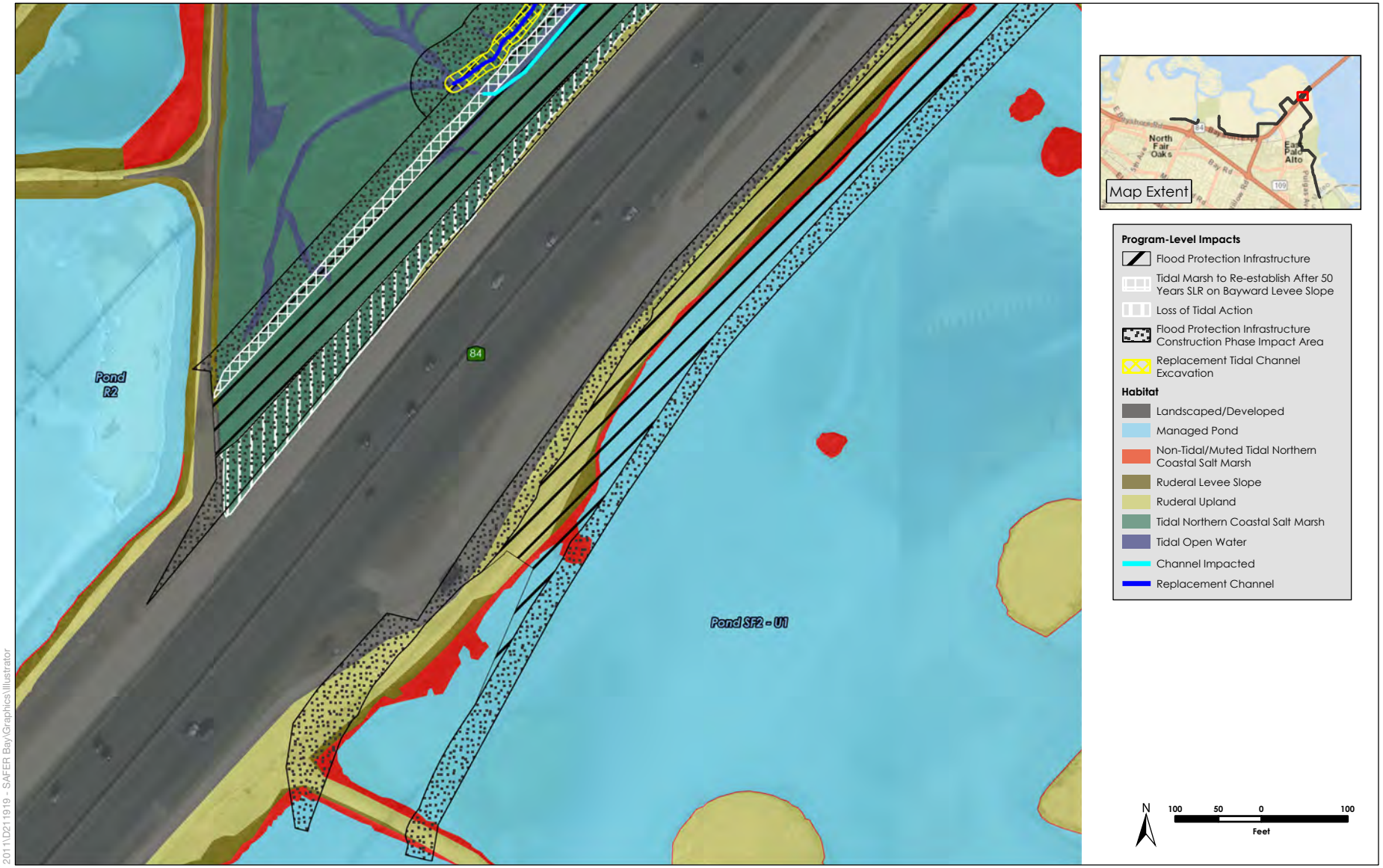
2011\D211919 - SAFER Bay\Graphics\FEIR\Illustrator

SOURCE: H.T. Harvey & Associates, March 2026

SAFER Bay Project

Figure 3.4-2a
Program-Level Components - Existing Habitat Map Index

ESA
H. T. HARVEY & ASSOCIATES
Ecological Consultants



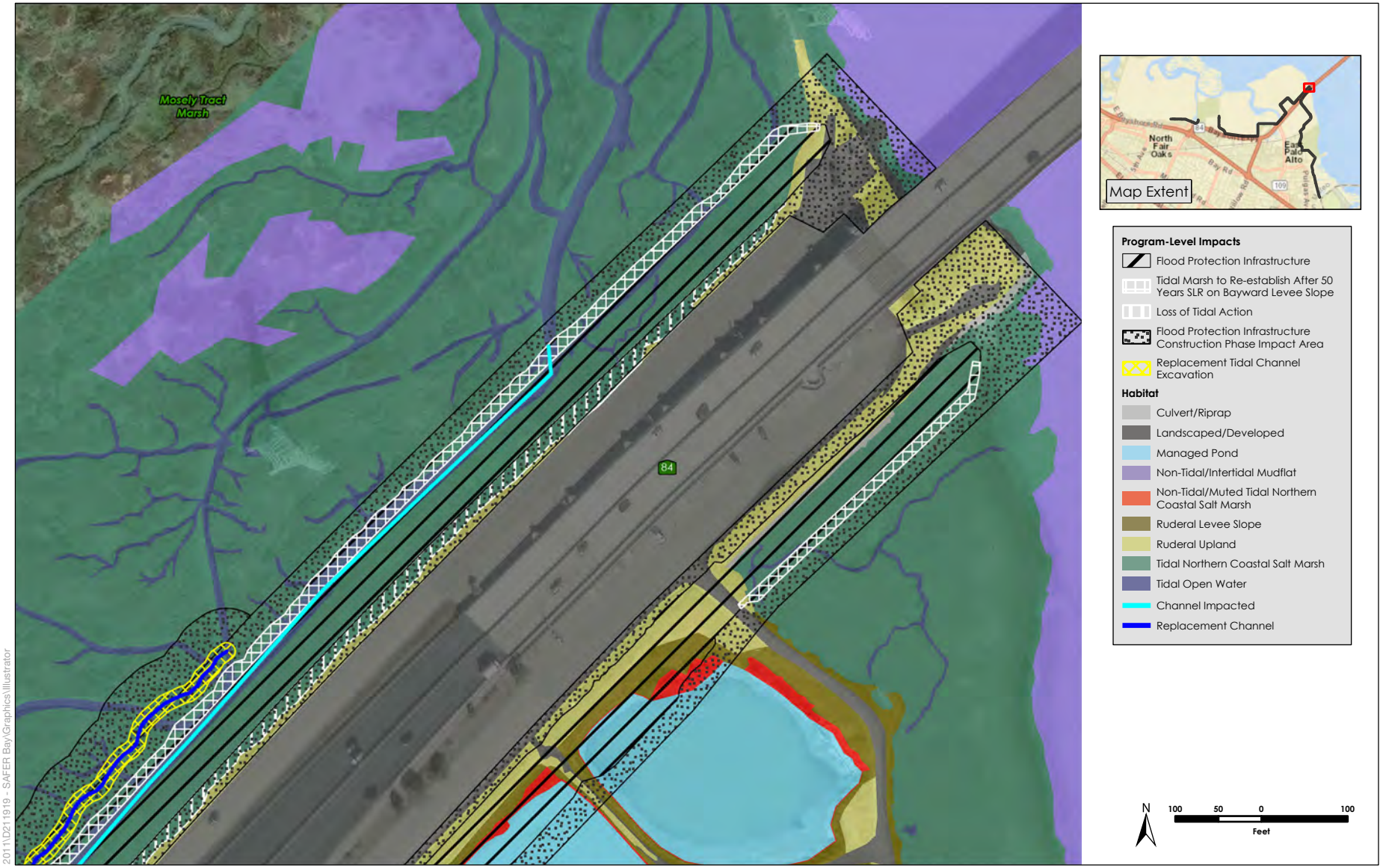
2011\D211919 - SAFER Bay\Graphics\Illustrator

SOURCE: H.T. Harvey & Associates, April 2026

SAFER Bay Project

Figure 3.4-2h
Program-Level Reaches

ESA
H. T. HARVEY & ASSOCIATES
Ecological Consultants



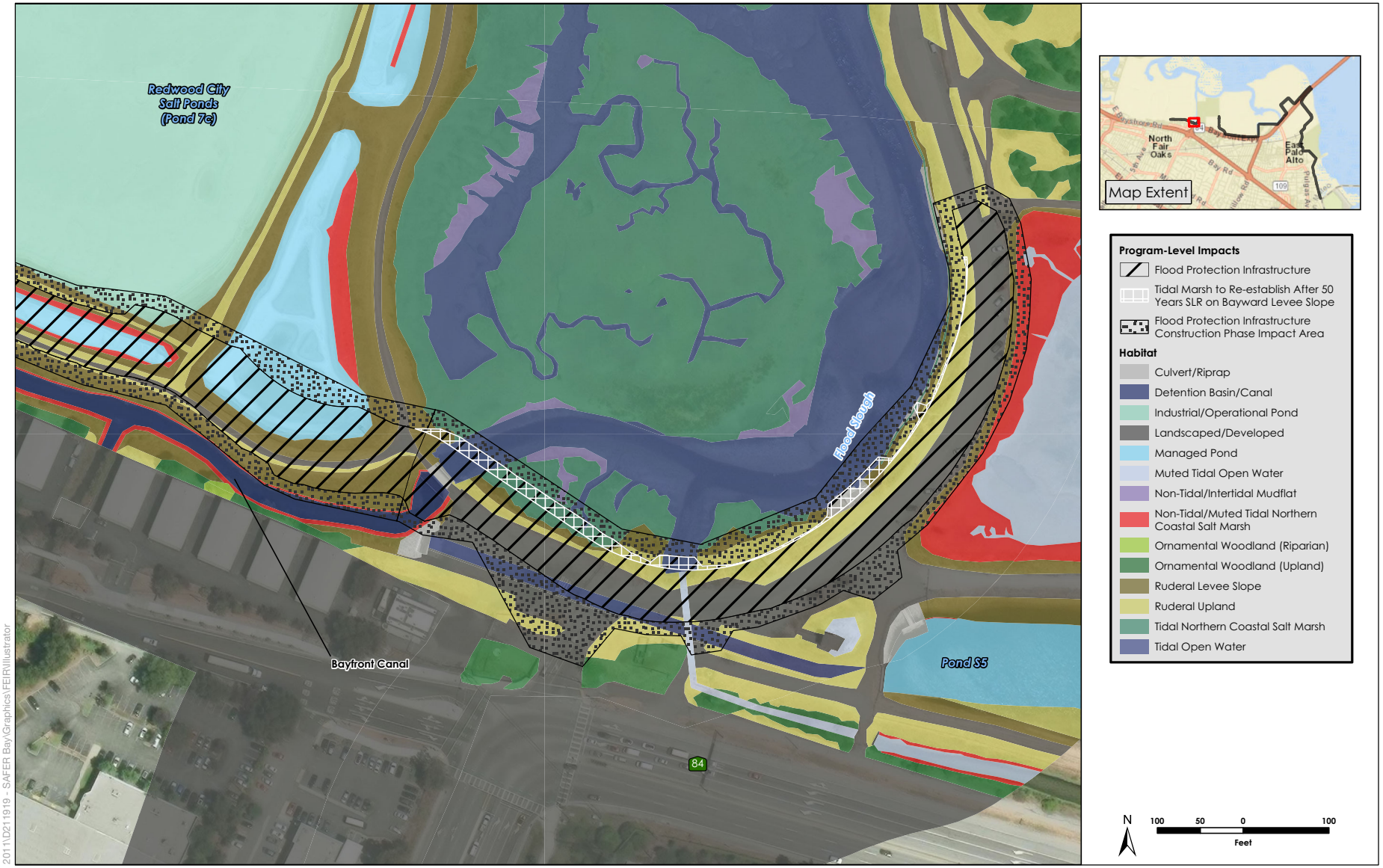
2011\D2119 19 - SAFER Bay\Graphics\Illustrator

SOURCE: H.T. Harvey & Associates, April 2026

SAFER Bay Project

Figure 3.4-2i
Program-Level Reaches

ESA
H. T. HARVEY & ASSOCIATES
Ecological Consultants

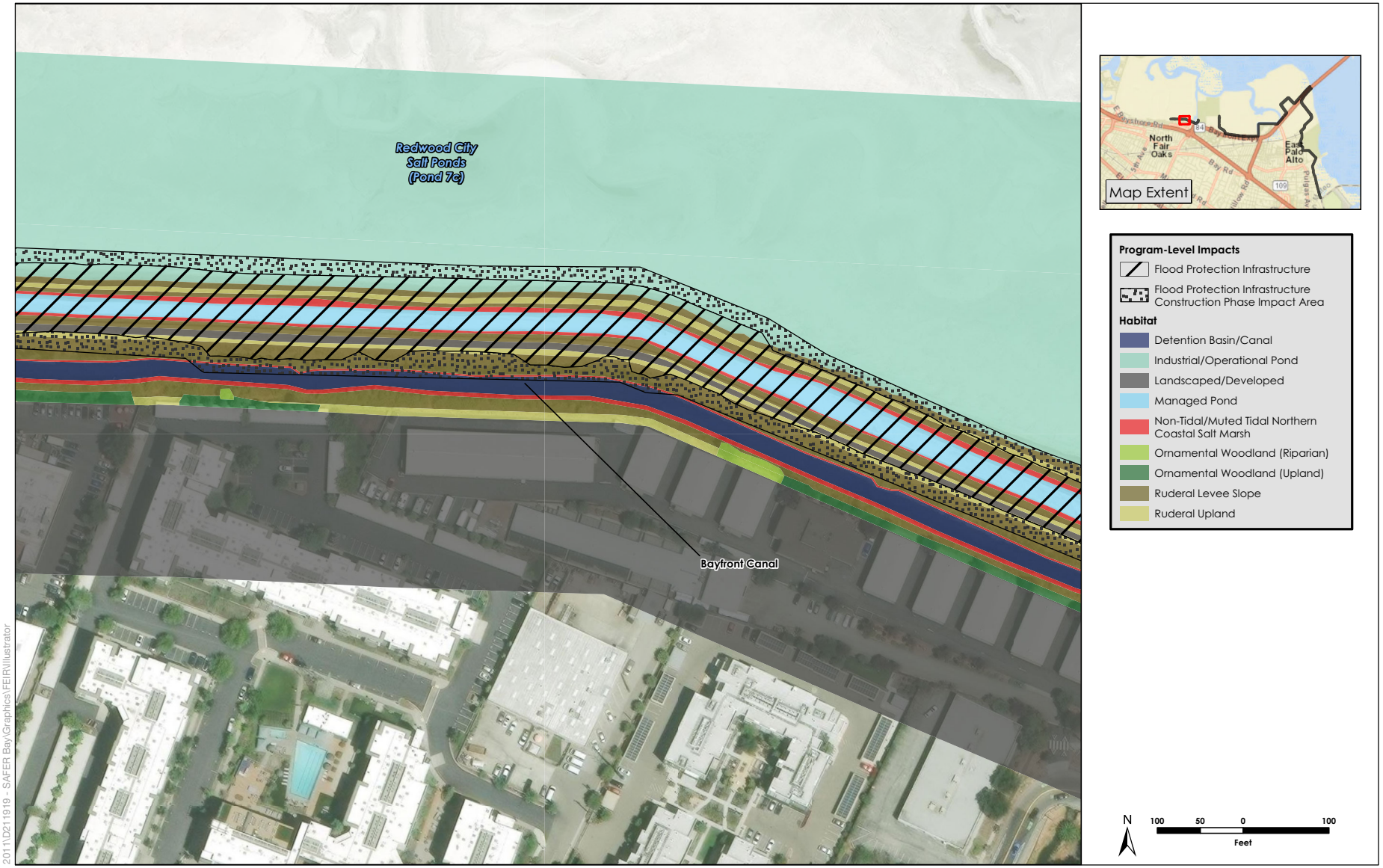


SOURCE: H.T. Harvey & Associates, March 2026

SAFER Bay Project

Figure 3.4-2t
Program-Level Reaches

ESA
H. T. HARVEY & ASSOCIATES
Ecological Consultants

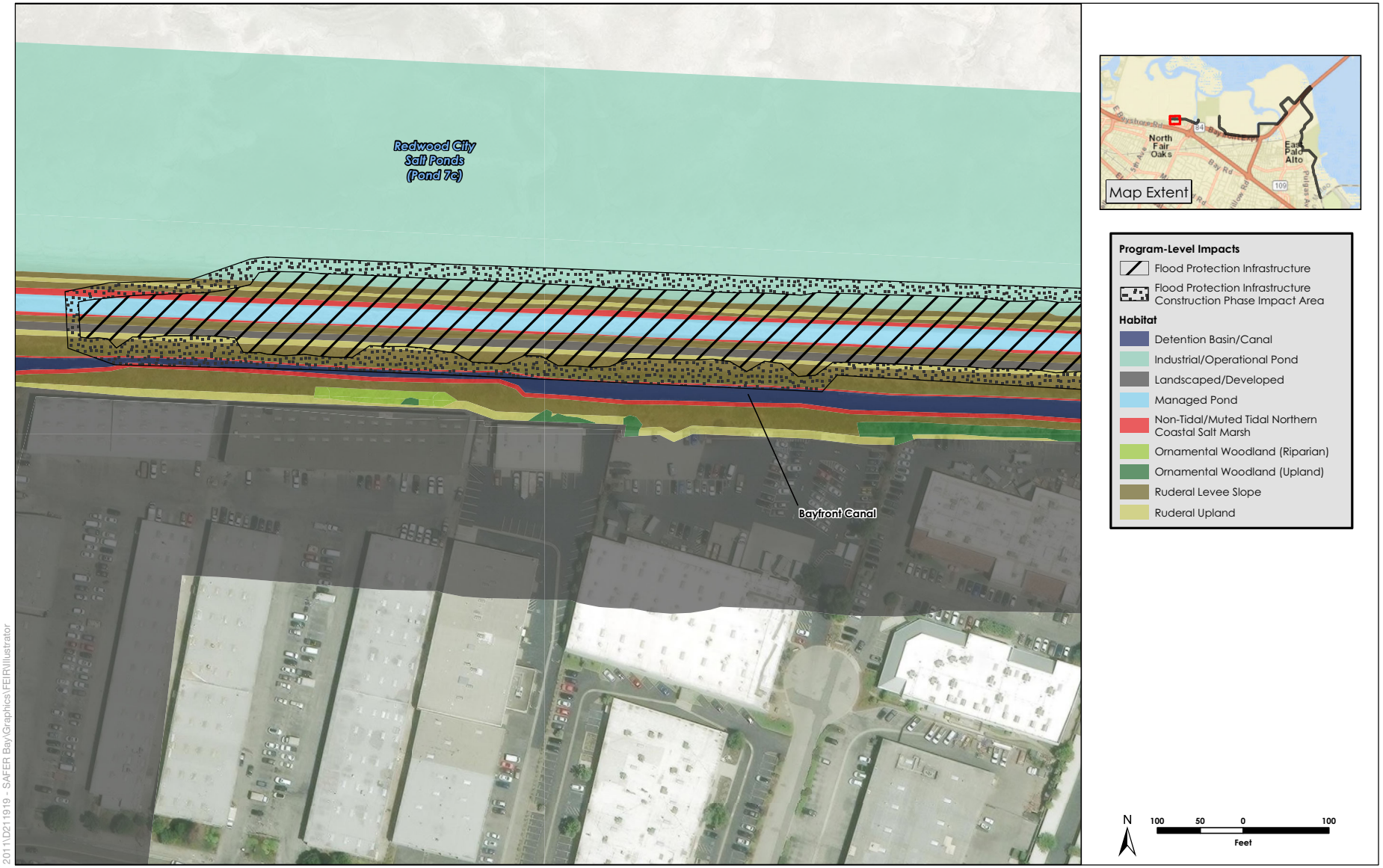


SOURCE: H.T. Harvey & Associates, March 2026

SAFER Bay Project

Figure 3.4-2u
Program-Level Reaches

ESA
H. T. HARVEY & ASSOCIATES
Ecological Consultants



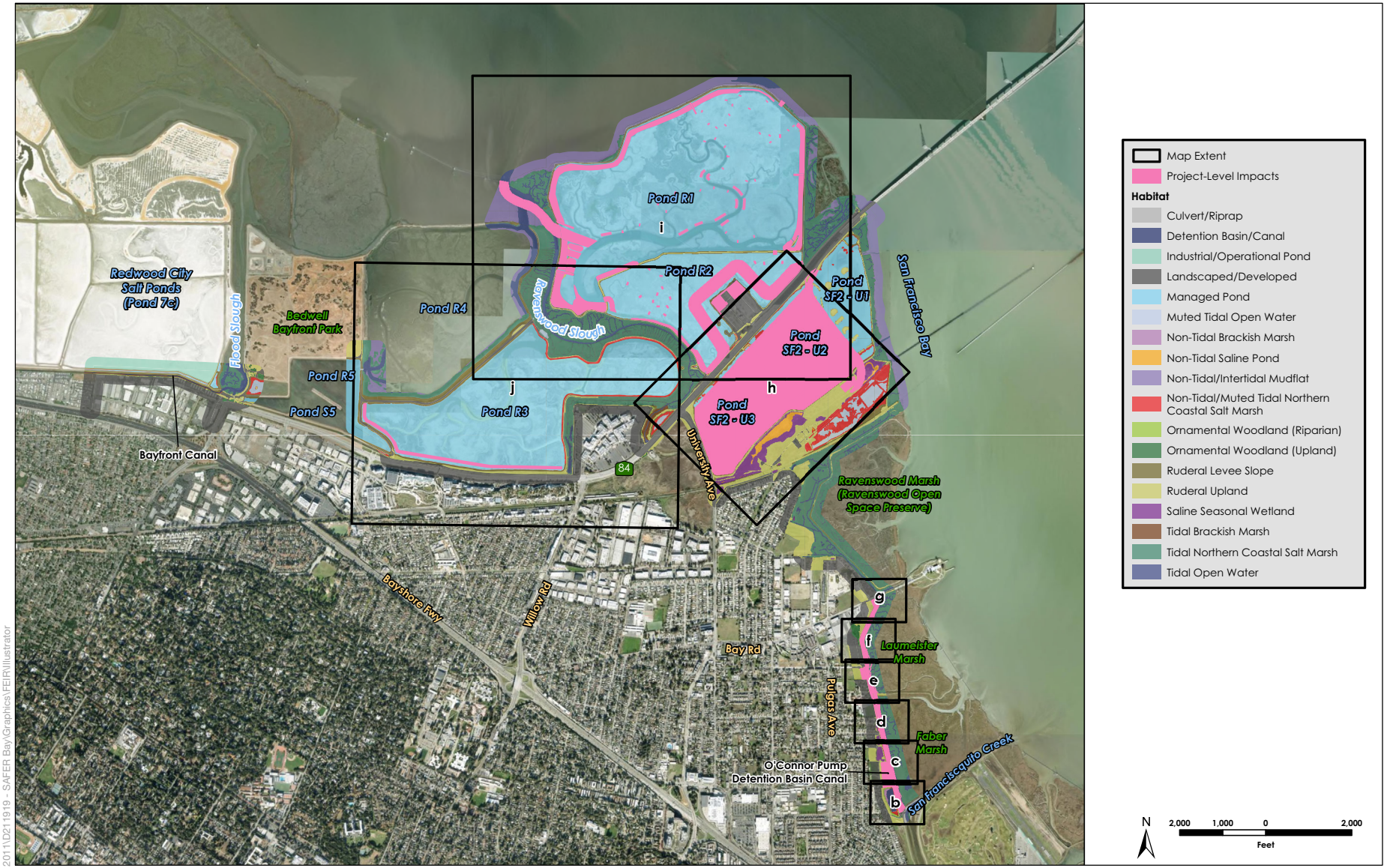
2011\D211919 - SAFER Bay\Graphics\FEIR\Illustrator

SOURCE: H.T. Harvey & Associates, March 2026

SAFER Bay Project

Figure 3.4-2v
Program-Level Reaches

ESA
H. T. HARVEY & ASSOCIATES
Ecological Consultants



2011\D211919 - SAFER Bay\Graphics\FEIR\Illustrator

SOURCE: H.T. Harvey & Associates, March 2026

SAFER Bay Project

Figure 3.4-3a
Project-Level Components - Existing Habitat Map Index

ESA
H. T. HARVEY & ASSOCIATES
Ecological Consultants

2011\D2119 19 - SAFER Bay\Graphics\FEIR\Illustrator

SOURCE: H.T. Harvey & Associates, March 2026

SAFER Bay Project

Figure 3.4-4i
Habitat Map

ESA
H. T. HARVEY & ASSOCIATES
Ecological Consultants

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Appendix RTC-1

Comments Received on the Draft EIR

REGION 9
SAN FRANCISCO, CA 94105

January 21, 2026

Tess Byler
Senior Project Manager
San Francisquito Creek Joint Powers Authority
750 Meno Avenue, Suite 250
Meno Park, California 94025

Subject: Strategy to Advance Flood Protection, Ecosystems, and Recreation (SAFER) Projects Draft Environmental Impact Report (State Clearinghouse #2022040504)

Dear Tess Byer:

The EPA has reviewed the SAFER programmatic-type Draft Environmental Impact Report prepared pursuant to the California Environmental Quality Act. The EPA understands that the Army Corps of Engineers expects to address project-specific impacts on individual permits under the National Environmental Policy Act. The EPA's comments below focus on the potential effects of construction noise to human health and childhood learning. The EPA may provide comments regarding other resource areas (i.e., aquatic or water-related resources) when future NEPA analyses are initiated. 1

Noise Impacts

SAFER's programmatic-type Draft EIR identifies noise as a significant and unavoidable impact to sensitive receptors (residences, hospitals, and schools), even with mitigation, for the South of Bay Road, Bedwell Bayfront Park, Tech Campus, and Marsh Road reaches at distances varying between 45 – 2,700 feet from project activities.[1] Exposure to repetitive, disruptive noise levels can significantly affect children's cognitive development and information retention. As noted in the Draft EIR, noise has been found to impact child learning – especially young children – including interference with concentration, comprehension, and communication (p. 3.13-3). To be able to hear and understand spoken messages in classrooms, the American National Standards Institute standard S12.60-2002 has established acoustical performance criteria for classrooms specifying that one-hour average background noise levels not exceed 35 dBA in core learning spaces.[2] 2

[1] Public project presentation of December 18, 2025.
[2] See the American National Standards Institute's *Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools.* ANSI S12.60 (R2020), *https://blog.ansi.org/ansi/ansi-asa-s12-60-part-1-2010-r2020-school-acoustics/*

Assessment of Potential Noise Impacts

The Draft EIR provides estimates of noise levels from construction and sheet wall pile driving equipment on properties located 45 – 840 feet from the project as measured against the Federal Transportation Agency's 90 dBA *residential* daytime criteria (Tables 3.13-8 through 3.13-14). The Draft EIR does not estimate noise levels at any of the nine schools the EPA has identified within the 2,700-foot area of potential effects.[3] All estimates were well above the recommended 35 dBA level. 2 cont.

> ***Recommendation:*** To determine where and at what level temporary barriers or other minimization measures would be needed to meet the 35 dBA threshold, the EPA recommends that noise levels at classrooms closest to the heavy construction and pile driving activities be estimated and that specific attenuation measures be included in Noise Control Plans as warranted.

Reducing Potential Noise Impacts

The Draft EIR states that significant and unavoidable noise impacts would affect receptors intermittently between 10 - 220 working days (p. 4-10). As the typical school year in California consists of 180 instructional days, the EPA is concerned that project activities could inhibit childhood learning for significant periods of time, including the length of an entire grade level.

Recommendations: 3

- The EPA recommends applying noise minimization Measures G – H in Section 7.11 of East Palo Alto's General Plan specifically related to impact pile driving to all SAFER projects, and include them in Mitigation Measures NOI-1 and Noise Control Plans (p. 3.10-10).

- We recommend reconsideration of the determination that the use of alternative equipment capable of reducing noise levels below the applicable threshold, such as drills or impact tools, is considered infeasible. As noise attenuating equipment is known to exist and could be made available, consider requiring that all contractors commit to securing and using the quietest pile driving and construction equipment that exists (p. 4-11).

- The EPA recommends that all schools identified within the area of potential noise effects be notified of construction plans and potential noise impacts with sufficient time to plan and implement noise minimization and mitigation measures.

The EPA appreciates the opportunity to provide comments to help assess and mitigate noise impacts with the potential to adversely impact human health and childhood learning. We look forward to reviewing the next environmental document prepared for the project. If you have any questions,

[3] Schools within the 2,700 foot distance of potential significant and unavoidable noise effects include the Aspire East Palo Alto School, Edison–Ronald McNair Intermediate School, East Palo Alto Academy, East Palo Alto High School, School of Wisdom and Knowledge, Narobi College, and the Eastside College Preparatory School in the South of Bay Road reach; the Costano Elementary School in the North of Bay Road reach; and the Belle Haven Elementary School and Beechwood School in the Bayfront Expressway reach.

please contact Jean Prijatel at (415) 947-4167 or Robin Truitt, the lead reviewer for the SAFER projects at (415) 972-3742 or Truitt.Robin@epa.gov.

Sincerely,

for Jean Prijatel,
Manager
Policy and Operations Branch

cc: Frances P. Malamud-Roam
Regulatory Program Manager, U.S. Army Corps of Engineers

San Francisco Bay Conservation and Development Commission
375 Beale Street, Suite 510, San Francisco, California 94105 tel 415 352 3600 fax 888 348 5190
State of California | Gavin Newsom – Governor | info@bcdc.ca.gov | www.bcdc.ca.gov

Transmitted via electronic mail only.

January 23, 2026

San Francisquito Creek Joint Powers Authority
2100 Geng Road, Suite 210
Palo Alto, CA 94303
Attention: Tess Byler, Senior Project Manager (TByler@sfcjpa.org)

SUBJECT:
BCDC Comments on Draft Environmental Impact Report for the Strategy to Advance Flood Protection, Ecosystems and Recreation along San Francisco (SAFER) Bay Project, in East Palo Alto and Menlo Park, San Mateo County (*BCDC Inquiry File No. MC.MC.7415.026; SCH #2022040504*)

Dear Tess Byler:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the Strategy to Advance Flood Protection, Ecosystems and Recreation along San Francisco (SAFER) Bay Project, received in our office on December 1, 2025. The San Francisco Bay Conservation and Development Commission (BCDC) is a responsible agency for this project and will rely on the DEIR when it considers the project. Our staff has prepared comments outlining specific BCDC issues or policies that should be addressed either in the DEIR or through the BCDC permitting process as appropriate. As the project design progresses, we will be able to continue working with you to ensure the project is consistent with BCDC laws and policies. The comments below are based on the McAteer-Petris Act and the Commission's San Francisco Bay Plan (Bay Plan). 1

1) Minimizing Fill in the Bay

Section 66605 of the McAteer-Petris Act states, among other requirements, that fill in the Bay should be authorized only when no alternative upland location is available for such purpose, and that the water area authorized to be filled should be the minimum necessary to achieve the purpose of the fill. The DEIR describes in detail certain locations where land use constraints (such as ground contamination) prevent relocation of shoreline protection features further inland, such as portions of the North of Bay Road and South of Bay Road reaches. However, in other areas, there is not sufficient detail on constraints and how fill impacts have been minimized. Please provide an analysis of all reaches that clearly 2

identifies where and why placement of fill into existing Bay habitats may be the only feasible alternative, describes any constraints that would make setting back of levee features infeasible, and how the Project is avoiding and minimizing impacts to Bay habitats to the greatest extent feasible. The analysis should include both direct fill impacts as well as loss of tidal action to tidal and muted tidal areas inland of levee locations. 2 cont.

2) Tech Campus Reach

Please further analyze the ecological and public access benefits and tradeoffs between the Modified Footprint Alternative (MFA) and the Project for the Tech Campus Reach. The MFA would include a floodwall following Highway 84 and Hacker Way, while the Project would include a levee spanning Ravenswood Slough, causing loss of tidal action inland of the levee, but the DEIR does not compare these two options in depth. While BCDC staff generally agree that levees with broader slopes can provide greater ecological and recreational benefit than floodwalls, in this area it may be worth exploring the floodwall option further if it could prevent loss of tidal action to a substantial area of tidal and muted-tidal marsh. 3

3) Environmentally Superior Alternative

The DEIR concludes that "the magnitude of permanent impacts to wetland and aquatic habitats under the 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, the Modified Footprint Alternative is considered the environmentally superior alternative." The DEIR should more clearly describe and justify why the Project would be chosen over the environmentally superior Modified Footprint Alternative. 4

4) Muted Tidal and Non-Tidal Wetlands

For purposes of identifying and calculating impacts, the DEIR groups muted tidal and non-tidal wetlands together under the category "Non tidal wetlands". Please note that BCDC's Bay jurisdiction includes wetlands that are subject to tidal action, up to a maximum of five feet above mean sea level, even if the tidal action is muted. In contrast, non-tidal wetlands would generally not be in BCDC's Bay jurisdiction, unless they were subject to BCDC's Bay jurisdiction prior to becoming non-tidal. In calculating wetland impacts, the DEIR should differentiate between muted tidal and non-tidal wetlands. In addition, if levee impacts would result in loss of tidal action in muted tidal wetland areas (which appears to be the case near the Tech Campus reach, as an example), those muted tidal areas should be counted as loss of tidal action. 5

5) Elevations

Table 2-3 (Page 2-18) specifies target elevations for the various reaches. Please specify why the target elevations vary widely among reaches. This information should also be addressed in the climate change risk assessment that will be required for the Project pursuant to the Bay Plan Climate Change Policies No. 2 and 3, as described to the project team in earlier discussions. 6

6) Habitat Maps

The maps of existing habitat types in the DEIR are very helpful. Please include maps of expected habitat types after project construction. 7

7) Figure 3.4-2t (Flood Slough Area)

Please verify the land cover types in this area. In recent site visits BCDC staff determined that tidal action passes underneath the southern Marsh Road, tidally connecting Flood Slough to the unnamed waterway immediately north of the Bayfront Expressway. The maps show this waterway to be a detention basin/canal, but BCDC believes this waterway is tidal. Please also see previous comments about BCDC jurisdiction sent to the project team via email on August 7, 2025. 8

8) Public Access and Recreation

a) Table S-1 (Page S-4)

i) Please note there are additional public access improvements required by BCDC permits than the trails that will be impacted by this project. This includes viewing areas, parking, signage, fishing opportunities, and connections into adjacent communities. The benefits and services of impacted public access improvements should be included in the programming for the project's design. BCDC staff will work with you to identify existing public access requirements throughout the project area. 9

ii) Please note that the Tech Campus has BCDC-required public shore parking, pursuant to BCDC Permit No. 1978.026.08.

b) Table S-2 (Page S-32) Transportation – Impact TRA-1

i) One mitigation measure listed is identification of parking for construction along public roadways. There are required on-street Public Shore Parking spaces required by BCDC permits, and these should not be used for contractor parking or staging until that reach is closed for construction. If Public Shore Parking is 10

impacted by construction activities, an alternative location for this benefit should be identified and approved through BCDC's plan review process. 10 cont.

ii) Please note that the typical BCDC plan review process is allotted 60 days. Where traffic control plans impact or related to BCDC-required public access, the plans will need to be reviewed and approved by BCDC. Traffic control plans should be submitted with sufficient time for BCDC review and approval. 11

c) Tidal Salt Marsh Restoration in Ponds R1 and R2 – Proposed Changes to Recreation Features (Page 2-14)

Decommissioning of the outer berm trail creates a gap in the recreational trails and removes the loop opportunity that currently exists, which adversely affects public access in this area. Please include a connector trail between the two spur trails to ensure continued shoreline access connectivity in this area. A connector trail along the new SAFER levee outboard of the substation should be analyzed for potential wildlife impacts. Such a trail alignment was included in the Modified Footprint Alternative, but we did not find detail as to why this alignment was not included in the Project. If it is determined that an alignment outboard of the substation would adversely impact wildlife, an alternate connector trail should be included along the inland side of the substation. 12

d) Figure 2-10, North of Bay Road Reach Plan (Page 2-25)

We encourage continued coordination between the SAFER team and the developer of 391 Demeter Street. 13

e) Detail P2/Figure 2-11 Typical Section: Program-level Reaches (Page 83)

i) Please explore addition of belvederes along the P2 segments on either side of 84.

ii) Please explore means of reducing the exposed face of floodwall. It appears the exposed face of wall is about 3.5 to 4 feet tall, which would limit bay viewing from the trail for many users. 14

f) Dumbarton Approach Reach (Page 2-30)

Please note that Bay Plan Map 6, Policy 6 states: "Dumbarton Bridge - Approaches should provide for fishing and wildlife observation. Maintain existing public path." Please describe whether and how the project would still provide or allow for fishing opportunities in this area. 15

g) Figure 2-15 Typical Section: Dumbarton Approach Reach Under State Route 84

   i) Please describe how the transition would accommodate bicycles and pedestrians at the east end underpass.

   ii) Please describe whether there would be any treatments on the underpass wall that would provide value to viewers.

16

h) Bedwell Bayfront Park Reach – Recreation (Page 2-55)

Please ensure the levee at the Bedwell entrance is sufficient to accommodate the driveway/road, parking, and Bay Trail.

17

i) Marsh Road Reach – Recreation (Page 2-56)

BCDC's policies require that projects provide maximum feasible public access. We strongly encourage the inclusion of a recreational trail along the top of the levee, which would implement an important Bay Trail gap section. Please note that private property does not disqualify the site from required public access, therefore public access in this area needs to be studied further.

18

j) Table 2-4 SAFER Bay Project Implementation Schedule (Page 2-58)

The breaching of the levee takes place before the implementation of any trail improvements or connections, resulting in almost a year of lapsed access. Please minimize impacts and closures to public access and consider interim public access improvements to offset for the creation of the trail gap.

19

k) Section 2.6.1 Construction Process (Page 2-59) and Section 3.15.3 Impacts and Mitigation Measures – Construction (Page 3.15-7)

   i) Please describe how the project would minimize necessary trail closures. Please ensure the project team works with local jurisdictions, the Metropolitan Transportation Commission (MTC), and BCDC on appropriate detours/improvements to bike and pedestrian facilities for the duration of the impacts to trail and recreation facilities.

   ii) All BCDC required public access, including Bay Trail segments, should have alternatives and detours during construction closures.

20

l) Section 2.7.3 Recreation (Page 2-69)

21

Please note that many segments of the Bay Trail are required public access improvements associated with BCDC permits that also include provisions for maintaining the improvements. 21 cont.

9) Geology

The DEIR notes that any geological concerns will be less that significant and that they will not require any mitigation measures. Nevertheless, the proposed project design will address concerns related to ground shaking, liquefaction, soil erosion, loss of topsoil and expansive soils. Please provide information on the geologic design criteria used for various flood protective elements of the SAFER project. 22

10) Flood gate at Bay Road:

The DEIR notes that a single flood gate will be installed at Bay Road. Please provide design of the flood gate, at least at a conceptual level, with the flooding conditions for which it will be designed. 23

11) Levee Plans and Design:

a) The levee plans show that sections of the levee will use a geogrid on the waterside slope. Please provide a more detailed design for the geogrid element and identify how the waterward slope of the levee will terminate, how the geogrid will be maintained, and whether there will be any constraints on the plantings. 24

b) In Figure 2-11, please describe the substructure below the levee. 25

c) Figure 2-15 notes that there are callouts F1 and F3, however Figure 2-13 shows callouts F1 and F2. Was F3 a typo, or is there a third call-out that was not shown? 26

d) Project plans show that the trails around the Ravenswood Substation will be constructed across some areas that are now inundated. How will the drainage be modified to address this situation? 27

e) The US Army Corps of Engineers has design criteria for many structures. Please identify what design criteria will be used specifically for these levees. 28

12) Site Hydrology

a) The water levels at several of the Ponds are now or will be controlled by structures. Please identify likely modifications that might be needed in the future to maintain habitat values. Will any of the SAFER project elements limit significantly the future water management options? 29

b) Several of the levee segments will have sheet pile walls that will likely go through groundwater layers. The Gilken Sheet pile system will constrain groundwater flow. These impacts have not been discussed in the DEIR. Please discuss the ways that groundwater will be modified, associated impacts, and possible measures to minimize these impacts. 30

Thank you for providing the staff with an opportunity to review the DEIR for the *Strategy to Advance Flood Protection, Ecosystems and Recreation along San Francisco (SAFER) Bay Project*. We recognize the importance and scope of this project and hope these comments aid you in preparation of the Final EIR. We look forward to working with you and the project sponsors as the project is developed and through the permitting stage. If you have any questions regarding this letter or the Commission's policies and permitting process, please do not hesitate to contact me at 415-352-3668 or schuyler.olsson@bcdc.ca.gov.

Sincerely,

DocuSigned by:
A67BAB4E82A64F7...

Schuyler Olsson
Senior Environmental Scientist (Specialist)
San Francisco Bay Conservation and Development Commission
375 Beale Street, Suite 510, San Francisco, California 94105
Phone: +1 (415) 352-3668
Email: schuyler.olsson@bcdc.ca.gov

SO/

cc: State Clearinghouse, <state.clearinghouse@opr.ca.gov>

California Department of Transportation

DISTRICT 4
OFFICE OF REGIONAL AND COMMUNITY PLANNING
P.O. BOX 23660, MS–10D | OAKLAND, CA 94623-0660
www.dot.ca.gov

January 23, 2026

SCH #: 2022040504
GTS #: 04-SM-2022-00750
GTS ID: 26302
Co/Rt/Pm: SM/84/VAR

Tess Byler, Senior Project Manager
San Francisquito Creek Joint Powers Authority
750 Menlo Avenue, Suite 250
Menlo Park, CA 94025

Re: Strategy to Advance Flood Protection, Ecosystems and Recreation along San Francisco (SAFER) Bay Project – Draft Environmental Impact Report (DEIR)

Dear Tess Byler:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the SAFER Bay Project. The Local Development Review (LDR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities. The following comments are based on our review of the December 2025 DEIR.

Please note this correspondence does not indicate an official position or approval by Caltrans on this project and is for informational purposes only.

Project Understanding

The proposed project includes construction of levees, floodwalls and other flood protection features, tidal salt marsh restoration, and new sections of the Bay Trail 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. The purpose of the project is shoreline protection, restoration, and enhancement of recreational features. The project area includes the Dumbarton Bridge west approach and other sections of State Route (SR) 84.

Hydrology

Please ensure that any increase in storm water runoff to State Drainage Systems or Facilities be treated, contained on project site, and metered to preconstruction levels. Any floodplain impacts must be documented and mitigated. 1

The proposed flood protection measures, such as floodwalls and levees, may conflict with existing State drainage facilities. The proposed work at SR 84 and Ravenswood Slough will likely require concurrence by Caltrans. Please ensure existing State and local drainage facilities are surveyed, identified, and shown on project plans. Proposed drainage and flooding design changes will need to address any drainage-related conflicts. The Office of Hydraulic Engineering looks forward to reviewing proposed drainage solutions and helping to resolve potential drainage concerns and conflicts. 2

The general explanation of how flood protection facilities will be maintained and by whom appears to be sufficiently addressed in this DEIR. However, please also provide a more comprehensive explanation of agency/partner commitments and resources (e.g., funding and personnel) to be allocated to regular maintenance of the proposed flood protection facilities as part of a flood protection management plan to ensure better clarity and transparency of flood protection responsibilities. 3

Air Quality and Noise
Please address the following comments from the Caltrans District 4 Air Quality and Noise Branch:

Chapter 3.3 Air Quality, Existing Ambient Air Quality (page 3.3-6): Regarding the statement, "As shown in Table 3.1-1, the state 1-hour ozone standard of parts per million (ppm) and the state/federal 8-hour ozone standard of 0.07 ppm was exceeded in Redwood City on days 1 and 3, respectively," please clarify whether this means two days in 2019 and one day in 2020 per Table 3.3-1. 4

Chapter 3.13 Noise and Vibration, Table 3.13-11 (page 3.13-23): Please explain the use of impact pile driver for grading. 5

Chapter 3.13 Noise and Vibration, Tech Campus Reach (page 3.13-24): Please clarify why the impact remains significant if the noise reduction is less than 10dBA after mitigation. 6

Chapter 3.13 Noise and Vibration, Operation and Maintenance (page 3.13-30): Please provide an explanation demonstrating that the projected increase in truck traffic over existing volumes does not cause a significant rise in noise levels. 7

Climate Change/Sea Level Rise
The Dumbarton Bridge west approach and sections of SR 84 included in the project area are vulnerable to sea level rise. The Caltrans District 4 Climate Change Planning Branch is already coordinating with the San Francisquito Creek Joint Powers Authority (SFCJPA), the cities of Menlo Park and East Palo Alto, and other stakeholders in 8

identifying solutions to achieve project objectives. Caltrans will continue to participate in regular interagency coordination meetings for the SAFER Bay Project. 8 cont.

Construction-Related Impacts
Project work that requires movement of oversized or excessive load vehicles on State roadways requires a transportation permit that is issued by Caltrans. To apply, please visit Caltrans Transportation Permits (*link*).

Prior to construction, coordination may be required with Caltrans to develop a Transportation Management Plan (TMP) to reduce construction traffic impacts to the State Transportation Network (STN). 9

Equitable Access
If any Caltrans facilities are impacted by the project, those facilities must meet Americans with Disabilities Act (ADA) Standards after project completion. As well, the project must maintain bicycle and pedestrian access during construction. These access considerations support Caltrans' equity mission to provide a safe, sustainable, and equitable transportation network for all users. 10

Encroachment Permit
Please be advised that any temporary or permanent work including traffic control that encroaches in, under, or over any portion of the State highway Rights-of-Way (ROW) requires a Caltrans-issued encroachment permit.

The Office of Encroachment Permits requires 100% complete design plans and supporting documents to review and circulate the permit application package. The review and approval of encroachment projects is managed through the Encroachment Permits Office Process (EPOP) or the Project Delivery Quality Management Assessment Process (QMAP), depending on project scope, complexity, and completeness of the application. Please use the following resources to determine the appropriate review process: 11

- TR-0416 Applicant's Checklist (*link*)
- Caltrans Encroachment Projects Processes – Information Video (*link*)
- Flowchart, Figure 1.2 in Section 108, Overview of the Encroachment Review Process, of Chapter 100 – The Permit Function, Caltrans Encroachment Permit Manual (*link*)

The permit approval typically takes less than 60 days, but may take longer depending on the project scope, size, complexity, completeness, compliance with applicable laws, standards, policies, and quality of the permit package submitted. Projects

requiring exceptions to design standards, exceptions to encroachment policies, or external agency approvals may need more time to process.

11 cont.

To obtain more information and download the permit application, please visit Caltrans Encroachment Permits (*link*).

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, please contact Luana Chen, Associate Transportation Planner, via LDR-D4@dot.ca.gov. For future early coordination opportunities or project referrals, please visit Caltrans LDR website (*link*) or contact LDR-D4@dot.ca.gov.

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Sincerely,

YUNSHENG LUO
Branch Chief, Local Development Review
Office of Regional and Community Planning

c: State Clearinghouse

CALIFORNIA STATE LANDS COMMISSION

100 Howe Avenue, Suite 100 South
Sacramento, CA 95825-8202

STATE OF CALIFORNIA
GAVIN NEWSOM, *Governor*

MATTHEW DUMLAO, PhD, *Executive Officer*
Reception: 916.574.1900
TTY: 711

January 23, 2026

VIA ELECTRONIC MAIL ONLY (tbyler@sfcjpa.org)

File Ref.: SCH #2022040504

San Francisquito Creek Joint Powers Authority
Tess Byler
750 Menlo Avenue, Suite 250
Menlo Park, CA 94025

Subject: Draft Environmental Impact Report for Strategy to Advance Flood Protection, Ecosystems, and Recreation along San Francisco Bay Project, San Mateo County

Dear Tess Byler:

The California State Lands Commission (Commission) staff has reviewed the Draft Environmental Impact Report (Draft EIR) for the Strategy to Advance Flood Protection, Ecosystems, and Recreation along San Francisco Bay Project (Project), which is being prepared by the San Francisquito Creek Joint Powers Authority (SFCJPA). The SFCJPA, as the public agency proposing to carry out the Project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) The Commission is a trustee agency for projects that could directly or indirectly affect State sovereign lands and their accompanying Public Trust resources or uses. Additionally, because the Project involves work on State sovereign land under the Commission's jurisdiction, the Commission will act as a responsible agency.

Commission Jurisdiction and Public Trust Lands 1

The Commission has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The Commission also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6009, subd. (c); 6009.1; 6301; and 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the common law Public Trust Doctrine.

As general background, the State of California acquired sovereign ownership of all

tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the state for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tideline (MHTL), except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court.

After review of the information contained in the Draft EIR and the Commission's records, Commission staff has determined that portions of the Project area will include State-owned sovereign land under the jurisdiction of the Commission. Therefore, a lease from the Commission will be required for any portion of the Project on State sovereign land. The Commission has a lease in the Project area with the U.S. Fish and Wildlife Service including Ravenswood Slough. On August 20, 1981, the Commission authorized a General Lease – Public Agency Use, Lease No. PRC 6045.9, for the operation, management, protection, and maintenance of State sovereign land to be used in conjunction with the San Francisco Bay National Wildlife Refuge, which encompasses refuge areas in Alameda, San Mateo, and Santa Clara counties. The lease will expire on August 31, 2047. 1 cont.

The Commission also has a lease in the vicinity of Flood Slough with the Menlo Park Sanitary District. On December 20, 1979, the Commission amended a Permit – Public Agency Use, No. PRC 5486.9, for the construction and maintenance of a sanitary pumping station. This lease will expire on May 31, 2044. Commission staff has identified Commission-owned parcels that may be within the project area, particularly San Mateo County Assessor's Parcel Numbers (APNs): 055-400-170, 055-400-460, 055-411-060, and 096-220-270. These parcels occur waterward of the MHTL within Ravenswood Slough. The Commission also has jurisdiction over APN 055-400-430 adjacent to the northern San Francisco Bay side of Pond R1 of the Project area. Any Project work activities extending into this APN would also require Commission authorization.

An application may be submitted to the Commission through the online application portal (OSCAR.slc.ca.gov). If you have questions specific to jurisdiction, lease provisions, or the application process, please contact the Public Land Management Specialist identified at the end of the letter. Commission staff encourage the Project team to coordinate with Commission staff early when applying for a lease for the use of state lands. This includes staff in our Land Management Division and staff in the Commission's Climate Adaptation and Special Initiatives (CASI) team. Early coordination will ensure the Project's consistency with the protection and enhancement of Public Trust resources, and the Commission's guidance on how to

minimize risks to Public Trust resources from sea level rise (see the 2023 Shoreline Adaptation and the Public Trust report). Please see the end of the letter for CASI staff contact information. 1 cont.

Project Description

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 Project area has designated reaches for shoreline protection, habitat improvements, and recreation. From the Project Description, Commission staff understands that the following Project reaches (evaluated at a program level of detail) have the potential to affect State sovereign land: 2

- Tech Campus Reach: For shoreline protection, levee and levee/floodwall hybrid construction is proposed along Ravenswood Slough adjacent to State Route 84. Habitat improvement work includes a primary breach location between Ravenswood Slough and Pond R1.

  A bayward channel is proposed to be excavated through Ravenswood Slough, downstream of the primary breach, to improve the tidal connection between Ponds R1 and R2 and the Bay (via Ravenswood Slough). In addition, revegetation of levee slopes with transition zone habitat may extend into the Commission's jurisdiction on the northern San Francisco Bay side of Pond R1.

- Bedwell Bayfront Park Reach: For shoreline protection, levee construction is proposed along Flood Slough. Habitat improvement work includes revegetation of levee slopes with transition zone habitat adjacent to Flood Slough.

Environmental Review

Commission staff requests that SFCJPA consider the following comments on the Project's Draft EIR to ensure that impacts to State sovereign land are adequately analyzed for the Commission's use of the Final EIR when considering a future lease application for the Project. 3

General Comments

1. Program vs. Project EIR Analysis: Project components within Commission jurisdiction are evaluated at a program level (10 percent design level) and would likely require supplemental CEQA analysis following further development/design of the Project components. Consequently, many affected

resources were not evaluated at a Project level. Please be advised that the Commission's use of the Final EIR for issuance of a lease for Project components within Commission jurisdiction must include a Project-level analysis of environmental impacts in accordance with CEQA. 3 cont.

2. Project Description: The Project Description lacks a detailed description of construction activities occurring waterward of the MHTL, particularly for proposed work along Ravenswood Slough and Flood Slough. With current figures in the Draft EIR, Commission staff cannot determine the extent of proposed work occurring waterward of the MHTL within the Commission's leasing jurisdiction. In particular, the Project Description should include design elevation details from Appendix BIO3 for the proposed high tide refugia habitat improvements. 4

Biological Resources:

3. Aquatic Invasive Species: One of the major stressors in California waterways is introduced species. The Biological Resources section of the Draft EIR only includes analysis of invasive plant species. Therefore, the EIR should consider the Project's potential to encourage the establishment or proliferation of all aquatic invasive species (AIS), including aquatic plants. For example, construction boats and barges brought in from long stays at distant projects may transport new species to the Project area via vessel biofouling, wherein marine and aquatic organisms attach to and accumulate on the hull and other submerged parts of a vessel. 5

   Prevention measures or mitigation could include contracting local vessels and barges or requiring contractors to inspect and clean the hull and other underwater surfaces of vessels prior to arrival at the Project area. The Commission's Marine Invasive Species Program could assist with this analysis as well as with the development of appropriate mitigation (information at https://www.slc.ca.gov/misp/).

   The EIR should identify the home port location of barges and work vessels to inform the analysis of potential risk from work vessels coming from a known location with AIS of management concern. Commission staff recommends contracting with work vessels within San Francisco Bay west of the Carquinez Strait to avoid the introduction of new AIS to the Project's aquatic area.

Climate Change

4. Sea Level Rise: The partial designs for the Project's shoreline protection structures (levees and floodwalls) include information about other relevant site conditions 6

that will impact the protective structures' function, such as the emerging groundwater table, land subsidence, drainage systems, and other flood control infrastructure such as pump stations, new and existing flood channels, and diversion and overflow storage. However, Commission staff recommends that the final designs articulate the extent to which these complex site condition factors will affect the ultimate height of the flood protection structures, as well as settlement and structural stability and integrity. 6 cont.

Cultural Resources

5. Title to Resources within Commission Jurisdiction: The EIR should state that the title to all archaeological sites and historic or cultural resources on or in the tide and submerged lands of California is vested in the State and under the jurisdiction of the California State Lands Commission (Pub. Resources Code, § 6313). 7

   Staff requests that the following statement be included in Mitigation Measure CUL-3 (Inadvertent Discovery of Cultural Resources) of the EIR: "The final disposition of archaeological, historical, and paleontological resources recovered on State lands under the jurisdiction of the California State Lands Commission must be approved by the Commission."

Hydrology/Water Quality

6. Dredging and San Francisco Bay Dredge Materials Management Office (DMMO): The EIR should clearly identify if proposed dredging of the bayward channel would be new dredging or a continuation of existing dredging activities (see next paragraph, below, for a discussion on dredging and jurisdictional agency review). The EIR should also explain if future maintenance dredging would be needed for the bayward channel in order to maintain the proposed design elevation for the channel and tidal exchange with Ponds R1 and R2. 8

   The Hydrology and Water Quality (HYDRO/WQ) section of the Draft EIR states that SFCJPA has not submitted an application for the Project to the DMMO for review of proposed dredging and reuse of dredged materials. The DMMO's process requires preparation and review of a Sediment Analysis Plan (SAP), and the DMMO provides a Final Sediment Analysis Results (SAR) letter (representing completion of the DMMO process) with advisory recommendations to permitting agencies pertaining to dredging and proposed reuse or disposal of dredged materials. The lease application to the Commission must include the SAP and SAR documents demonstrating completion of the DMMO process. It is preferable for the DMMO documents and recommendations to be 9

incorporated into the Project-level design and analyzed in the EIR. As explained in Comment 1, all Project components within the Commission's jurisdiction must include a Project-level analysis of environmental impacts in accordance with CEQA for the Commission's use of the EIR for consideration of a lease. This information will be required prior to Commission action on a lease application for the Project.

9 cont.

Thank you for the opportunity to comment on the Draft EIR for the Project. As a responsible and trustee agency, the Commission will rely on the Final EIR, along with any supplemental CEQA analysis following further development/design of the Project components, when issuing a new lease. Staff requests that you consider these comments before certifying the EIR.

Please send electronic copies of the Final EIR, Mitigation Monitoring and Reporting Program, Notice of Determination, approving resolution, CEQA Findings, and Statement of Overriding Considerations when they are final. Please note that federal and state laws require all government entities to improve accessibility of information technology and content by complying with established accessibility requirements. (29 U.S.C. § 794d; 36 C.F.R. § 1194.1 et seq.; Gov. Code, § 7405.) California State law prohibits State agencies from publishing on their websites content that does not comply with accessibility requirements. (Gov. Code, § 115467.) Therefore, any documents submitted to Commission staff during the processing of a lease or permit that will be posted online, including relevant CEQA documentation, must meet accessibility requirements for Commission staff to place the application on the Commission agenda.

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Please refer questions concerning environmental review to Jason Ramos, Senior Environmental Scientist, Jason.Ramos@slc.ca.gov or (916) 574-1814. For questions concerning Commission leasing jurisdiction, please contact Marlene Schroeder, Public Land Management Specialist, Marlene.Schroeder@slc.ca.gov or (916) 574-2320. For climate change and sea level rise-related coordination, please contact Maren Farnum, Senior Environmental Scientist, Maren.Farnum@slc.ca.gov or (916) 574-0966.

Sincerely,

Nicole Dobroski, Chief

Division of Environmental Science,
Planning and Management

cc: Office of Planning and Research
J. Ramos, Commission
M. Schroeder, Commission
M. Farnum, Commission

GENERAL MANAGER
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January 23, 2026

San Francisquito Creek Joint Powers Authority
Attn: Margaret Bruce, Executive Director
750 Menlo Park, Suite 250
Menlo Park, CA 94025

Submitted via email: tbyler@sfcjpa.org

SUBJECT: SAFER Bay Project Draft Environmental Impact Report (State Clearinghouse No. 2022040504)

Dear Ms. Bruce,

On behalf of the Midpeninsula Regional Open Space District (Midpen), we respectfully submit the following comments regarding the San Francisquito Creek Joint Powers Authority's (SFCJPA) SAFER Bay Project (Project) Draft Environmental Impact Report (DEIR). Midpen is a CEQA Responsible Agency due to the need for SFCJPA to obtain Midpen's approval and authorization for property access to construct the proposed flood improvements, recreational trail realignment and reconstruction and related improvements at Ravenswood Open Space Preserve during Project implementation. 1

Midpen has preserved over 70,000 acres of open space land on the San Francisco Bay Peninsula. Our mission is:

> *To acquire and preserve a regional greenbelt of open space land in perpetuity; protect and restore the natural environment; and provide opportunities for ecologically sensitive public enjoyment and education.*

While much of Midpen's open space lands are along the ridge of the Santa Cruz Mountains, Midpen owns and manages Ravenswood Open Space Preserve (Preserve), which is located along the shore of the San Francisco Bay in East Palo Alto. In 2020, Midpen completed a project to develop a new 0.6-mile segment of the San Francisco Bay Trail (Bay Trail) at the Preserve. In addition, Midpen also owns a portion of Cooley Landing Park, which was developed in partnership with the City of East Palo Alto (City). Our comments are focused on the proposed Project improvements within the North of Bay Road and the proposed changes to the recreational facilities within this reach which directly affect our Ravenswood Preserve.

Levee Slope

Midpen has previously requested the implementation of broad sloped or ecotone levees wherever possible versus standard levees with more abrupt slopes or floodwalls to provide enhanced ecological benefits in support 2

of sensitive habitats, special status species, and flood protection. Midpen acknowledges that steeper 3:1 slopes are required to be constructed adjacent to Ravenswood Open Space Preserve to limit adverse impacts on sensitive resources within the preserve. Midpen requests that additional upland habitat be developed with restoration planting on the existing Bay Trail levee (Ravenswood Bay Trail) and development of habitat islands within the marsh. Midpen requests native vegetation should extend on the land side of the levee to the greatest extent possible. 2 cont.

Slough Channel Replacement

To address the significant impact of filling the tidal channel at Ravenswood Open Space Preserve, Midpen requests that the site assessment, and project design and implementation include analysis measuring of the tidal flow through the existing channel and confirming whether new tidal connections established exceed the current tidal flow. The existing slough should not be blocked until the measured tidal flow exceeds the existing tidal flow. It may be difficult to provide adequate tidal flow using culverts under the existing levee. Midpen recommends that the EIR and further design of the north of the bay road segment include evaluating an alternative method of installing a raised boardwalk of similar construction to the existing boardwalk on the north end of Ravenswood Preserve and the removal of sections of the existing levee. Midpen also requests the development of a plan for continued public access to the extent possible prior to implementation of construction. 3

Snowy Plover

Midpen supports the following mitigation and finds it is substantial to offset impacts to plover habitat "*The Project proposes to offset the loss of western snowy plover habitat that could occur with levee construction and the breaching of Ponds R1 and R2, by constructing high-quality, contiguous western snowy plover breeding and foraging habitat in Pond SF2 and enhance western snowy plover habitat in Ponds R3 and SF2. (Chapter 2, P. 2-10)*", Midpen would like to note that success is likely contingent on ongoing habitat enhancement and predator management actions. Midpen recommends the use of novel and creative techniques to control persistent and intelligent predators, along with techniques to reduce acclimation or learning from intelligent predators. 4

The draft DEIR states "*Seabird nesting islands would be constructed in Pond R1 concurrent with the construction of the SF2 levee (prior to dewatering SF2)" (Chapter 2, P. 2-56).* Historically, nesting islands have been used by shorebirds with mixed successe. Midpen would like to emphasize the importance of enhancing the entirety of SF2 and R3 before disturbing ponds R1 and R2. In an effort to avoid conflicts between recreation and native species, Midpen also recommends the EIR address the use of seasonal closures or closure buffers around active plover nests. Additionally, Midpen would like to recommend that borrow ditches remain fully watered during the breeding season to create a hydrological barrier to prevent broods from moving into recreational areas. Where borrow ditches are not present (e.g. T-zone adjacent to trail) Midpen recommends installing fencing or encouraging vegetation to serve as a physical barrier to discourage wildlife from entering unsafe recreational areas. 5 6 7

The Draft EIR's Rail BMPs recommend exclusion fencing to maintain buffers around known nests or suitable habitat. Midpen would like to encourage including exclusion fencing around project areas within 700ft of suitable habitat, regardless of occupancy, and at a qualified biologist's discretion and direction. Breeding shorebird BMPs, like American avocet and black-necked stilt, include buffers or mitigations around stationary nests. Midpen recommends the EIR address a suitable distance buffer around developing broods that are identified and maintained by a qualified biologist during active work. The young of these species are precocial and are therefore very ground mobile while still unable to fly. Chicks and broods are at risk of physical impacts from both project and human activities. 8

Invasive Plants

Midpen would like to point out that the Congdon's Tarplant under CEPA is a 1b.1 status and the DEIR has it at a lower Threat Ranking (1b.2) -- 1b.1 indicating "seriously threatened in California) vs. ib.2 indicating "moderately threatened in California". The status of Congdon's Tarplant should be corrected within the DEIR. 9

Midpen would like to comment on the following Biological Resources Mitigation Measures:

> Mitigation Measure BIO-2: Preconstruction Survey. The DEIR incorrectly states the blooming period for Congdon's tarplant is from June through October and possibly later if conducted prior to the first heavy rains of the fall. The correct blooming period is March through October, with blooming possible in April and November. The DEIR should be updated accordingly. Midpen's Natural Resource Department would like to be included in discussions for plant surveys conducted during this time frame. Midpen also urges the need to have more than one survey to better capture site specific phenology. 10
>
> Mitigation Measure BIO-4: Compensatory Mitigation for Congdon's Tarplant mentions harvesting seed for mitigation. Midpen recommends adding language describing seed collection throughout the fruiting season to capture early, middle, and late fruiting plants, this would better represent the genetic pool of the population and conserve important genes in the population to help with rainy season fluctuations and climate adaptation. 11
>
> Mitigation Measure BIO-4: Compensatory Mitigation for Congdon's Tarplant, A potential onsite mitigation location has been identified as an "area to be landscaped around the wetland.". Midpen would like to emphasize that a landscaped area is not appropriate method as mitigation. Landscaped areas tend to provide less quality habitat for birds and mice, since the plant spacing and planting palette is done for aesthetics rather than ecosystem function. The EIR should identify appropriate onsite mitigation locations that are not landscaped and instead function in the natural ecosystem. 12

Midpen also requests the EIR include measures to control the introduction of soil pathogens, invasive, and problematic species. Pathogen and weed control should also be included in mitigation plans. Please see the attached *Guidelines for Minimizing Phytophthora Pathogens*. 13

Stormwater

Midpen would like to reiterate the importance of broad and regional vulnerability in upland areas related to stormwater flow, stormwater retention, and appropriate discharge opportunities. Midpen recommends the EIR incorporate ecologically mindful hydrological connections from the upland areas to the project area to convey stormwater. This can lead to the dual benefit of directing extreme high tide water that exceeds capacity for tidal marshes to absorb. 14

Recreation

The DEIR states "*Then towards the northern end of the reach, the Bay Trail boardwalk would be routed over the levee." (Chapter 2, 2-30* This design is preferred by Midpen, if feasible. 15

Midpen requests that SFCJPA coordinates closely with Midpen on the design of the boardwalks, access ramps, and connection points within the Ravenswood open space preserve. Midpen is highly interested in the accessibility, aesthetics and ease of use of the connected recreational trail system.

Figure 2-10 shows two ADA access ramps at the end of Bay Road. As part of the design and CEQA analysis, Midpen recommends three or five access ramps depending on the configuration. If there is a full sidewalk on either side of Bay Road, three (3) ADA access ramps are sufficient. If a full sidewalk is infeasible on each side of the road, access ramps are recommended on both sides of Bay Road and both sides of the levee and an additional access ramp at the entrance of the existing trail to the southern observation platform in Ravenswood Preserve for a total of five (5) access ramps near the end of Bay Road. Not shown on this figure is a 16

replacement pedestrian gate which is required at the red dot in Figure 2-10 near callout view location B. The gate is a solar-powered automated pedestrian gate required by Midpen's access easement over San Francisco Public Utilities Commission lands to physical limit access during closed hours. It will also be required to replace the gate at the Ravenswood Preserve driving entrance at the end of Bay Road, which should also be an automated gate. Midpen requests the gates be added to associated figures. 16 cont.

Midpen recommends considering an additional alternative to improve public access on the Bay Trail by developing a public trail on the levee, north of the boardwalk. This alternative connects the main portion of Midpen's Ravenswood Preserve to the existing trail on the northern section of Ravenswood Preserve and Don Edwards Wildlife refuge shown on Figure 2-23 as SF2 trail. The levee in this section is through disturbed areas and does not get the public closer to sensitive habitats than the existing SF2 Trail and would only require paving and three (3) ADA access ramps as additional improvements. 17

The EIR should address the temporary recreational impacts associated with the public's inability to access the Bay Trail, the boardwalk and pedestrian bridge, where these recreational facilities will be rerouted and reconstructed during the anticipated construction period that will be phased over multiple years from 2029 through 2033. The EIR should propose an interim public access plan that includes trail detour routes and signage during Project construction and coordination between SFCJPA and Midpen in the development and implementation of this interim access plan. 18

Aesthetics

The DEIR acknowledges the potential for degraded views from Stevens and Fordham Street and that viewing opportunities towards the bay and Ravenswood Open Space Preserve would be interrupted by the proposed levee, which would be at higher elevation than the existing grade. For multiple resource analyses, a cumulative impact has been identified with mitigation measures therefore applied. Although the DEIR states the proposed improvements within North of Bay Road reach are analyzed at the programmatic level, the DEIR does not address the cumulative impacts to aesthetics for the proposed improvements within the North of Bay Road reach. SFCJPA should conduct subsequent additional analysis regarding aesthetic impacts associated with future implementation within the North of Bay Road reach once designs are developed, which is of great importance to Midpen due to its close proximity to Ravenswood Preserve. 19

Traffic and Transportation

Since Project construction is anticipated to be phased over five or more years, the DEIR states, "…the proposed construction trips could increase the likelihood of conflicts between construction traffic and bicycle and pedestrian facilities at Project access locations, which would experience an increase in use during Project construction" on page 3.16-11 and the Project would implement Mitigation Measure TRA-1 (Traffic Control Plan) to mitigate these temporary construction impacts to a less-than-significant impact level. The DEIR should be revised to state that Midpen should be coordinated with in development and implementation of this Traffic Control Plan as Preserve visitors and Midpen staff who access Bay Road for Ravenswood Preserve will be impacted by this construction impact. 20

Programmatic vs. Project Level Environmental Review

As typical with early design phases, substantial changes can occur as design and engineering progress. Midpen requests the SFCJPA provide Midpen regular updates and consultation as design progresses and subsequent environmental review is conducted as appropriate. 21

Midpen would like to continue to be included in discussions with the SFCJPA, the City, and other appropriate regulatory agencies related to proposed Project improvements within our land. Additionally, Midpen requests that the SFCJPA consult with us on further design and construction efforts affecting the Ravenswood Trail prior to the initiation of additional environmental analysis.

We strongly recommend that the SFCJPA continue working closely with the City of East Palo Alto, the San Francisco Public Utilities Commission, Midpen, other public stakeholders as well as private landowners as the project design progresses, additional environmental analysis is conducted and prior to implementation. 21 cont.

Thank you for considering our comments.

Sincerely,

Brian Malone

Assistant General Manager

CC: Midpeninsula Regional Open Space District Board of Directors
Ana M. Ruiz, General Manager, Midpeninsula Regional Open Space District

Attachment 1 - Guidelines for Minimizing Phytophthora Pathogens at MROSD Preserves.pdf

Guidelines for Minimizing *Phytophthora* Contamination at Midpeninsula Regional Open Space District Preserves

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The goal of these guidelines is to minimize the contamination of Midpeninsula Regional Open Space District (MROSD) preserves with *Phytophthora*, a soil pathogen that kills plants. Once a site is contaminated, this soil pathogen can spread farther into wildland areas and can be difficult to eradicate. Prevention is the lowest cost and easiest method to manage contamination.

The best way to prevent the spread of this disease is to not move soil from one location to another by cleaning tools, equipment, and footwear.

Part of the District's mission is to protect and restore the natural environment. Within the last few years, planted restoration sites have unintentionally exposed preserves to soil pathogens brought in by nursery plants that were later found to be contaminated. Testing of former restoration sites on District preserves is now underway to determine which sites are contaminated and the necessary remedial actions.

Who should use these guidelines?
These guidelines are intended for use by field staff and Natural Resource (NR) staff who pose the highest chance of spreading soil *Phytophthora* via equipment and footwear. Several methods are provided on how and when to decontaminate tools and equipment depending on the site conditions (contaminated versus clean site) and staff activities (planting, other). Guidelines for contractors, consultants, volunteers and preserve visitors are under development. Consult NR staff (Amanda Mills, amills@openspace.org or x558, or Coty Sifuentes-Winter, csifuentes@openspace.org or x560) on which guidelines are best for your project.

When to use these guidelines?
Use these guidelines for any activity that contacts soil, water or plants on a known Phytophthora-contaminated site, on a formerly planted site, on a site with rare plants, or when preparing or planting a new restoration site.

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1. Overview

Remember to **Arrive Clean and Leave Clean**. The best way to prevent the spread of *Phytophthora* is to leave soil at its original location in the field. Equipment and footwear should be clean and sanitized before entering a site, especially for planting events where extra precautionary steps will be taken. Before leaving a site, especially at contaminated sites, it's crucial to clean and sanitize footwear and equipment.

Definitions:

Clean - remove soil and organic debris from tools and footwear

Sanitize - Use disinfecting agent such as alcohol or chlorine bleach.

Phytosanitary- control of plant pests and diseases especially in agricultural crops

1.1 What is Phytophthora?

1.1.1 *Phytophthora* (Fie-tof-thora) is a group of water molds that infect plants. There are many species, mostly notably *P. ramorm* (Sudden Oak Death), *P. infestans* (potato blight/ Irish potato famine) and *P. tentaculata* (nursery root rot).

1.1.2 Symptoms are similar to drought, making diagnosis difficult without testing.

1.1.3 Symptoms include leaf spots, branch die-back, cankers, trunk bleeding and death of whole plant.

1.1.4 Hosts include many native and nursery plants including oaks, bay laurel, madrones, sticky monkeyflower.

1.1.5 Brought to California through imported camellia and rhododendron nursery plants.

1.1.6 Mainly spreads from contaminated nursery stock, pots and soil. Can spread by foot traffic from contaminated footwear.

1.2 General Steps:

1.2.1 **What -** Items to be cleaned: Anything that comes into contact with soil, water or plants. This includes tools (shovels, hand trowels, hori-horis, rakes, tree cages, plant protection tubes etc.), footwear, equipment, wheeled equipment and vehicles.

1.2.2 **When -** Prior to the project day, field staff will be notified what items need to be cleaned and by which method. In general, tools and equipment should be cleaned at the field office before bringing them to the field site, and soil should be removed from footwear beforehand and more thoroughly cleaned at the entrance to the field site.

1.2.3 **Transportation** - Cleaned equipment should be transported in a truckbed from which all soil has been washed out, or cleaned equipment can be wrapped in a clean tarp before placed in a dirty truck.

1.3 Proper Disinfectants

All recommended disinfectants are considered pesticides. Personal protective equipment required by the State of California for anyone using disinfectants is eye protection with wrap-around and brow protection and 14 mil chemical resistant gloves. You can use smaller mil gloves if handling chemicals for 15 minutes or less.

1.3.1 The disinfectants listed in Table 1 are recommended by standard phytosanitary guidelines.

1.3.2 Other disinfecting agents or methods, such as Lysol or heat treatments, must be reviewed and approved by NR staff before use.

1.3.3 Disinfectants are most effective when surfaces are clean of soil and user follows label instructions.

Disinfecting Agent	**Active ingredient**	**Contact time**	**Product shelf life**	**Proper Disposal**	**Health Risk**	**Personal Protective Equipment**
Granular Chlorine Bleach (Leslies Chlor Brite, EZ Chlor)	Sodium dichloroisocyanurate dihydrate	2 min	Long if undiluted	Neutralizer (Vita-D-Chlor)	High	Eyewear, gloves; do not inhale
Liquid Bleach (Clorox)*	Sodium chloride	2 min	3-5 months	TBD	High	Eyewear, gloves; do not inhale
Rubbing Alcohol	Ethanol or Isopropyl Alcohol	1 min	Long	TBD	Med	Eyewear, gloves; flammable
Quaternary ammonium compounds (Quat 128 or Physan 20)	Dodecyl dimethyl ammonium chloride	10 min	Long if undiluted	TBD	Med	Eyewear, gloves; toxic to fish

Table 1: List of approved disinfecting agents. Always follow chemical label instructions.
*Liquid bleaches are generally not recommended as a disinfectant because they lose potency in storage.

2. Cleaning at the Field Office

Clean equipment, tools and footwear at the field office **before** arriving to the project site. This is the easiest way to prevent soil contamination. For those occasions where equipment and footwear must be cleaned at a field site, see Cleaning at Field Site (page 7).

2.1 Remove Soil from Equipment and Footwear

2.1.1 At the field office, scrape, brush, and wash off any soil or organic material. Take care to remove soil trapped in treads or cracks.

2.1.2 Pathogens can survive inside soil clods even after soaking because disinfectants may not completely penetrate large or clayey masses. Therefore, it is important to remove large clods of soil before soaking or otherwise treating with disinfectants.

2.2 Disinfect Tools With Bleach

Several disinfecting agents are available for treating Phytophthoras (Table 1). When many tools need treatment, use granular chlorine bleach at the field office. Spraying with rubbing alcohol is more appropriate for spot treatment at remote field locations.

NEVER MIX DIFFERENT DISINFECTING AGENTS.

ALWAYS FOLLOW LABEL DIRECTIONS.

FOLLOW REQUIREMENTS FOR PERSONAL PROTECTIVE EQUIPMENT WHEN USING DISINFECTING AGENTS.

List of Equipment for Disinfecting Tools:

- **Disinfectant** – most frequently, we expect to be using granular chlorine bleach such as EZ Chlor or Leslie's Chlor Brite when cleaning multiple tools at the field office. Carefully follow the directions below when using any [?] of the bleach disinfectants.
- **Vita-D-Chlor (chlorine neutralizer) -** This neutralizing product is only required if you used chlorine bleach as a disinfectant.
- **Waterproof container -** A large [minimum size?] plastic trashcan or waterproof pop-up garden trimming container in which to mix the water-based disinfectant and soak the tools.
- **Hard bristled scrub brushes and paint scrapers** - Grill brushes with scrapper attachment are handy tools to loosen soil from both flat surfaces and narrow cracks.
- **Personal Protective Equipment** Close-toed shoes, apron or coveralls, protective eyewear, 14 mil chemical resistant gloves (not leather or cloth).
- **Clean water source** - should not be cloudy or with a lot of organic material in it**.** Pressure washers or nozzles are helpful to remove soil quickly and get into small cracks.

2.2.1 Before using the disinfectant, remove soil as described in above section.

2.2.2 Fill waterproof container with 10 gallons of water. Use label instructions to add the right amount of disinfecting agent. For granular bleach, use one teaspoon in 10 gallons to get the desired 0.525% dilution.

2.2.3 Dunk tools in solution for required soaking time (see Table 1). For granular bleach, this is 2-minutes. Just getting tools wet does not mean they will be disinfected. Think of it as chemical cooking.

2.2.4 If you used chlorine bleach as a disinfectant, it needs to be neutralized after soaking. This 'rinse cycle" will deactivate the bleach so it does not corrode metal and so that it is safer to dispose of the soak water. Equipment sprayed with alcohol does not require this neutralization step.

2.2.5 In addition to tools, remember to disinfect the sanitation kit, gloves, tarps, or other miscellaneous items that have come into contact with soil.

2.2.6 Let tools dry. The hose lay is great for drying tarps.

2.3 Disinfect Wheeled Equipment/ Vehicles

Anything with wheels, including wheel barrels, ATV's, motorized carts that will be used at the field site needs to be cleaned and this is best done at the field office before the project. Vehicles that stay at the staging area do not have to be cleaned and sanitized. However, it is good phytosanitary practice to remove soil from wheels every time you leave a site.

2.3.1 Scrub down tires either by hand scrubbing or using a pressure spray wash.

2.3.2 Sanitize using disinfecting spray such as bleach (must be made weekly) or rubbing alcohol.

3. Cleaning at Field Site

Remember to **Arrive Clean and Leave Clean**. If equipment was cleaned and treated with a disinfectant at the field office and delivered in a clean truck, then on-site cleaning of equipment will only be required when leaving at the end of a work day. We recommend that everyone be encouraged to thoroughly clean their footwear of soil before arrival at the site, and then footwear be treated with alcohol upon arrival. Volunteers may not always be aware of this recommendation and may arrive with boots that need to be cleaned of foreign soil at the field site. Scraping all soil off equipment and footwear is required before leaving site, and sanitation of all footwear is usually recommended when leaving a site, especially for known contaminated sites. Rubbing alcohol is usually the preferred disinfectant in the field. Bleach products can be used in the field, but it is harder to mix and dispose of them properly in the field. See details below.

3.1 Cleaning at Start of Field Day

Tools:

Portable sanitation kits include the following items in a bin: 2 tarps, boot brush with scraper, 2 spray bottles of 70% isopropyl alcohol, 2 long-handled brushes, 2 paint scrapers, and instructions. On muddy days, also bring a basin and 2 jugs of water.

Alcohol 70% Ethyl alcohol (Ethanol) or 90% Isopropyl alcohol is fine. Called rubbing alcohol at drug stores.

Spray bottle - we take the nozzles from chemical resistant spray bottles and screw them directly into the rubbing alcohol bottle. Sometimes the stem needs to be trimmed. This allows you to have a spray bottle that is properly labeled with rubbing alcohol information and precautions.

3.1.1 Any equipment or footwear not cleaned and sanitized at the field office must be cleaned and sanitized before entering the site. Off-site soil should be considered contaminated.

3.1.2 Using the items in the portable sanitation kit, set up a staging area where equipment and footwear will be cleaned and sanitized. A paved parking lot or surface near the entrance to the work site is preferred.

3.1.3 Lay out 2 tarps, one labeled 'dirty' and one labeled 'clean'.
Remove any off-site soil from footwear and equipment onto the 'dirty' tarp. Try not to use water. If water is used, DO NOT dump potentially contaminated water onto on-site soil. Water can be dumped onto non-permeable pavement such as a road or parking lot in a low traffic area. This will UV-sterilize the dirty water (24 hr daylight cycle) as long as no clumps exist. Potentially contaminated soil in the 'dirty' tarp should be bagged in a trash bag and thrown away. DO NOT dispose of off-site soil at the new site.

3.1.4 Use the 'clean' tarp to sanitize soil-free footwear and equipment. Standing on the tarp, spray cleaned footwear and tools with 70% isopropyl alcohol, thoroughly wetting the surface. If the surface of your footwear or tools is already wet, spray extra alcohol to displace the water and allow the alcohol to soak the surface. Spray the footwear from the top down to avoid contamination.

3.1.5 Allow alcohol to evaporate (approx. 1 min) before starting work. You can stand on the tarp until your shoes are dry.

3.1.6 Footbath Alternative - we are investigating sanitizing mats where sanitizing only requires stepping on the mat. Gemplers.com, sanistride.com, and nelsonjameson.com sell both sponge mats and footbath mats for disinfecting shoes. Either chlorine bleach or non-evaporating disinfectants are used in these footbaths and the solution is changed weekly or as needed. Chemical strips are available to test if disinfectants are still effective. Caution should be taken if footbaths and solutions are transported to avoid spills.

3.1.7 Bleach alternative in the field. We are currently recommending that the bleach alternative be used at the field office and alcohol be used in the field. Bleach may be a better alternative in the field under some circumstances (large amounts of tools that must be disinfected in field), but will require special processes for safety and to properly dispose of the chlorine treatment water. Consult with the NR Department to determine best methods under these conditions.

3.2 Cleaning at End of Field Day

Tools:

Portable sanitation kits include the following items in a bin: 2 tarps, boot brush withscraper, 2 spray bottles of 70% isopropyl alcohol, 2 long-handled brushes, 2 paint scrapers, and instructions. On muddy days, also bring a basin & 2 jugs of water.

3.2.1 Sanitation of equipment and shoes is important for known or suspected contaminated sites. More leniency can be given for 'clean' sites.

3.2.2 Remove all soil and organic material from footwear and equipment. Leave soil onsite. Use the boot scraper, paint scraper and a stiff brush to remove any soil and plant material on both the top and bottom of footwear and from tools including the digging ends and handles. Make sure to clean out crevices. On muddy days, fill the basin with water to assist in rinsing off excess soil once the majority of debris has been removed.

3.2.3 Water helps in removing dried clods of soil. This water can be dumped on-site only if the soil originates from on-site.

3.2.4 Standing on the 'clean' tarp, spray cleaned footwear and tools with 70% isopropyl alcohol, thoroughly wetting the surface and allowing it to dry (approx. 1 min). If the surface of your footwear or tools is already wet, spray extra alcohol to displace the water and allow the alcohol to soak the surface.

3.2.5 Before leaving the site, shake soil off the scrapers, brushes and tarp.

3.2.6 At the field office, thoroughly clean the portable sanitation kit by washing out, spraying with alcohol and drying the container and all contents before storage. The portable sanitation kit must be clean before moving to a new site.

4. FAQ

Q. What do we do with left over soil?
A. Depends on the soil. Soil from off-site should be disposed of in a trash bag and thrown away--there's no knowing if off-site soil is contaminated or not. On site soil can be disposed of on-site back where it came from.

Q. What do we do with dirty water?
A. Pouring on pavement or another non-porous surface should disperse the contaminated soil enough to UV (sun) sterilize the water. If using bleach, use neutralizer and the water can be considered clean and safe enough to pour out anywhere. Don't pollute! Other disinfectants need proper disposal that isn't safe for dumping on the ground. Contact Natural Resources Department (Amanda Mills/Coty Sifuentes-Winter) or EH&S for safe disposal procedures.

Q. How do we use the tarps?
A. Two tarps, two purposes. Dirty tarp: use as a containment area to clean off soil clogs, especially offsite soil, for later disposal. Clean tarp: provides users a clean surface to sterilize (with alcohol or other sanitation liquid) shoes and equipment not cleaned at the Field offices.

Q. When will we need to sanitize or use the kits?

A. 1. Contaminated sites (list TBD) 2. Planting events-NR staff lead 3. When NR Staff recommend sanitation. Most of these will be NR staff lead, otherwise a leading crew member will advise on Phytosanitary BMP.

Q. Can we use hot water to sterilize?
A. Hot water can be used only if equipment bathes in 120-125° water for 30 minutes in order to be effective at killing both surface contaminants and internal infections.

Q. What about large equipment and Ranger lead projects?
A. TBD. Field staff will be trained on phytosanitary measures. For field crew lead projects, a crew member should be in charge of facilitating phytosanitary compliance.

Q. Why does this take so much time?
A. It's best to prevent rather than respond to contamination by *Phytophthora*. Once a natural area has been exposed to this soil disease, it can slowly spread and kill other plants. It is very difficult and expensive to kill all the pathogens in the soil of a natural area.

5. Sources

CalPhytos.org. "Guidelines to minimize *Phytophthora* Pathogens in Restoration Nurseries". Suddenoakdeath.org. http://www.suddenoakdeath.org/wp-content/uploads/2016/04/Restoration.Nsy_.Guidelines.final_.092216.pdf

Kurowki, Chet. "Control Pathogen Spread through use of Disinfectants". Calseed.org. http://www.calseed.org/documents/Disinfectants%2004-22-14a.pdf

Cornell University Institutional Animal Care and Use Committee "Cleaning and sanitizing equipment used in the transport of animals." https://ras.research.cornell.edu/care/documents/ACUPs/ACUP532.pdf

http://agriculture.mo.gov/animals/pdf/animalag_guide4.pdf

6. Future Methods

Let us know how these guidelines worked for your project! We may adjust guidelines based on feedback.

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Palo Alto

PLANNING & DEVELOPMENT SERVICES
CITY OF PALO ALTO
250 Hamilton Avenue, 5th Floor
Palo Alto, CA 94301
(650) 329-2441

January 23, 2026

Tess Byler, Senior Project Manager
San Francisquito Creek Joint Powers Authority
750 Menlo Avenue, Suite 250
Menlo Park, CA 94025
Email: tbyler@sfcjpa.org

RE: Draft Environmental Impact Report, Strategy to Advance Flood Protection, Ecosystems and Recreation along San Francisco (SAFER) Bay

Thank you for including the City of Palo Alto in the environmental review process for the above-referenced project.

Project Understanding
The Project, *Strategy to Advance Flood Protection, Ecosystems and Recreation along San Francisco (SAFER) Bay*, would be located within multiple parcels within the City of East Palo Alto, Menlo Park, and Redwood City on both publicly- and privately-owned property. The Project includes actions within the Don Edwards National Wildlife Refuge (Refuge), including Refuge-managed land in Laumeister and Faber Tract Marshes, which are not located within the City of Palo Alto's jurisdiction, but that are owned by the City of Palo Alto (specifically APNS 063-580-090 and 063-580-100). The City understands that the SAFER Bay Project is intended to provide resiliency to coastal flooding and sea level rise in East Palo Alto and Menlo Park as well as to enhance and protect habitat and to expand recreational opportunities. Construction of the Project is proposed to occur in eight phases. Improvements within the South of Bay Road reach, which would be partially located on land owned by the City of Palo Alto, are proposed to begin in 2030. The EIR will consider the creation of broad, gently sloped tidal marsh-upland transition zones and trail modifications that elevate the Bay Trail, reducing the trail's exposure to flooding. Overall, the project includes more than 1,000 acres of habitat restoration, enhancement, and creation (more than double what was originally projected for the project) and 1 to 2.5 miles of new or modified trails. 1

Overall, the City wants to express its support for the use of ecotone levee designs wherever feasible and applauds the SFCJPA for incorporating extensive habitat restoration into the design. Additionally, the City supports efforts to improve bicycle-pedestrian connections and to provide improved recreational opportunities. The City of Palo Alto provides the following more specific comments in response to the Draft Environmental Impact Report.

Recreation

- Clarify the proposed surface material for the Bay Trail along the South of Bay Road reach. The City understands that all portions of the Bay Trail that are currently paved will be replaced in kind. Because this is an important regional bicycle trail connection, the City supports improving the Bay Trail with paving where feasible. The plan appears to improve the trail by widening the width of the trail, consistent with design standards set forth in the California Manual on Uniform Traffic Control Device Standards for shared use paths. The City is supportive of this change. However, the City 2

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Palo Alto

seeks clarity on the proposed surface materials in areas that are not currently paved. Any proposed surfacing material must be ADA compliant. 2 cont.

- The EIR states that infrastructure/trail improvements would be maintained by member agencies. The City seeks clarity regarding additional maintenance responsibilities, if any, that may be incurred as a result of the proposed project. In particular, the new levee may be susceptible to settlement as well as undermining of the Bay Trail due to ground burrowing rodents (e.g. ground squirrels) given the new earthen berms. The response indicates the City of East Palo Alto has accepted the long-term maintenance of the levees. However, it's not clear how that was transferred or agreed upon between San Mateo County, City of East Palo Alto, and Palo Alto. A conceptual maintenance agreement outlining maintenance responsibilities should be finalized prior to finalizing the design and prior to City approvals for work on Palo Alto-owned land. A period of routine inspections should be identified for improvements on infrastructure in addition to those proposed for habitat areas. 3 The City previously recommended that the proposed Bay Trail be designed in a manner that helps to prevent issues with ground burrowing rodents by using an integrated pest management approach in its design. 4 It is unclear whether this recommendation was considered or incorporated into the proposed project.

Utilities and Easements

- The City has reviewed Appendix INFRA and requests that the applicant prepare and submit an ALTA survey for the Palo Alto owned parcels. The map should include existing easements and utilities to determine what existing infrastructure may need to be relocated or access rights accounted for as part of the project. 5 This may also clarify who has maintenance responsibility along the trail for existing infrastructure and if new easements would be required for any relocation. It is not clear that all existing utilities within Palo Alto lands have been accommodated in the proposed project.

Vegetation Management and Maintenance

- Vegetation management along the current Bay Trail in the South of Bay Road reach has been challenging because the areas adjacent to the trail are filled with tall, invasive weeds (e.g. fennel, mustard, Lepidium). The EIR should discuss what type of vegetation is proposed adjacent to the trail. The City appreciates the SFCJPA acknowledging our recommendation that the SFCJPA consider an integrated design approach to weed management. Specifically, considering dense, native plants along the trail using native plant species that can outcompete the invasive species and require less maintenance (i.e. won't require mowing or grow into the trail). 6 If the project involves planting plants right up to the edge of the trail (within 3') the design should consider proposing dense, native low-growing plants (e.g. Frankenia, marsh heather, salt grass, etc.). The City understands that the current plans are not designed to this level of detail and looks forward to continued coordination as the SFCJPA continues to develop the project plans.
- Clarify whether there is proposed irrigation to establish the plants and, if so, the source of the irrigation. 7

Levee flood wall

- Table 2-3 and Figure 2-8 indicate that the existing trail grades range from 4.5 to 18 feet. It's not clear where the 18-foot grade is in relation to the South of Bay Road section, since most of the trail is closer to 4.5 feet. The table also indicates that the top of floodwall will be 16.5 feet. It's not clear why the floodwall would be 1.5 feet lower than the trail. 8 If the top of the floodwall is not the concrete pile cap, clarify the exhibits to show where the top of the floodwall is located. In addition, provide the height of the exposed portion of the concrete cap wall on the cross section.
- Verify if a railing would be needed along the concrete cap for safety. 9
- Provide an analysis of the impact to the groundwater table and the unconfined aquifer as a result of 40-foot-deep sheet piles. Describe the impact to the unconfined aquifer on the 10

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residential side because of these barriers. Similarly, describe the impact to the groundwater table on both sides of the sheet pile in the future because of sea level rise. 10 cont.

FEMA

- Provide an analysis of the transfer of flood risk to the adjacent communities. The analysis should include the change in elevation between the proposed top of floodwalls and the existing San Francisquito Creek levee, outside of the work area. The analysis should clearly demonstrate how the project will not transfer the flood risk onto Palo Alto because of floodwalls or provide mitigation that prevents the transfer of risk. 11

Cultural and Tribal Cultural Resources

- If Archeological or Tribal Cultural Resources are uncovered during construction on property owned by the City of Palo Alto, the City shall be notified of the discovery. Any proposed mitigation for the South of Bay Road reach, which is partially proposed on land owned by the City, should specify this requirement. The City recommends modifying Mitigation measures CUL-3 and CUL-4 to clarify that the property owner shall be contacted in the event of a discovery to address this comment. 12

Airport

- The City of Palo Alto appreciates the SFCJPA's acknowledgement that you will obtain an FAA 7460 permit from the FAA. The City also notes that as the design is refined the SFCJPA shall continue to consider applicable aviation safety considerations in compliance with the California Airport Land Use Planning Handbook published by the California Department of Transportation. 13

Coordination

The City requests that the SFCJPA continue to coordinate with the City of Palo Alto throughout more detailed design phases to ensure that project improvements that impact City of Palo Alto owned-parcels, sustain or enhance recreational and bicycle-friendly access connecting to the Palo Alto Baylands, enhance environmental conservation, and to ensure operational efficiency and best practices. Additionally, continued coordination is essential as this project could affect the analysis and conclusions of the City's Sea Level Rise Adaptation Plan project. City of Palo Alto has future projects that may impact existing wetlands along the Baylands. The City would like to continue discussions regarding restoration credits that the SAFER project could potentially provide for the City's future projects. 14

Approvals

Because the project is not located within the City of Palo Alto's jurisdiction, it is not anticipated that permits from the City would be required. However, Council approval would be required for any proposed encroachments or easements to construct and maintain flood infrastructure on the City's property. Additionally, the City recommends coordinating with the Palo Alto Airport regarding permits that may be required from the FAA for work within the vicinity of the Palo Alto Airport. 15

Should you have any questions regarding this letter and the City's comment, please contact Claire Raybould at (650) 329-2116 or Claire.Raybould@paloalto.gov or Jonathan Lait at Jonathan.Lait@paloalto.gov.

Sincerely,

Signed by:
Jonathan Lait
293CE322E1204F6...

Jonathan Lait
Director, Planning & Development Services

From: Tess Byler <tbyler@sfcjpa.org>
Sent: Thursday, January 22, 2026 10:41 AM
To:
Cc:
Subject: Fw: New form submission assigned to you: SAFER Bay Project

Tess Byler

D: 650.643.1454 | **C:** 650.304.4998

From: Streamline <noreply@specialdistrict.org>
Sent: Thursday, January 22, 2026 10:02 AM
To: Tess Byler <tbyler@sfcjpa.org>
Subject: New form submission assigned to you: SAFER Bay Project

SAN FRANCISQU
JOINT POWERS

SAFER Bay Project

Name:	Bo Baney
Email:	baneyb@samtrans.com
General Comments:	Given overlap with SamTrans Dumbarton Busway Feasibility Study, recommend continued communication with project teams to share findings, ensure project compatibility. 1
Chapter 1:	
Comment(s):	
Chapter 2:	
Comment(s):	Misidentification of the existing railroad in the study area as Southern Pacific Railroad. The right-of-way is owned by San Mateo 2

	Country Transit District (SMCTD or SamTrans) from Dumbarton Wye to Alameda County. Please relabel as such as needed.
Chapter 3:	
Comment(s):	Environmental Settings Table 3 - Please adjust Project #7 Name to "Dumbarton Busway Feasibility Study"; no change needed to project sponsor, description. Please update status to read "Study underway with anticipated completion by early 2027." SamTrans listed services - Misidentify Dumbarton Express (DBX) as a SamTrans service route. This is a joint service provided by partner transit agencies and operated by AC Transit - SamTrans Route 397: misidentified as an express route. This is a cross-county, lifeline "Owl" service that operates overnight - no mention of microtransit service RidePlus (https://www.samtrans.com/rider-info/ride-plus) in the existing Transit Service section. This is an on-demand public transit service provided in the project area
Chapter 4:	
Comment(s):	
Chapter 5:	
Comment(s):	
Chapter 6:	
Comment(s):	

2 cont.

3

4

Reply / Manage

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From: Wu, Elton H <EWu@sfwater.org>
Sent: Thursday, December 18, 2025 4:49 PM
To: Tess Byler <tbyler@sfcjpa.org>
Cc: Rando, Casey <crando@sfwater.org>; Rodgers, Heather <HeRodgers@sfwater.org>; Read, Emily <ERead@sfwater.org>; Leung, Tracy <TLeung@sfwater.org>; Feng, Stacie <SFeng@sfwater.org>; Wilson, Joanne <jwilson@sfwater.org>; Choi, Eric <EChoi@sfwater.org>; Wayne, Lisa B <LBWayne@sfwater.org>; RES <res@sfwater.org>; Natesan, Ellen <ENatesan@sfwater.org>; Herman, Jane <jherman@sfwater.org>
Subject: SAFER Bay Project- DEIR Public Notice

Hi Tess,

SFPUC has received the public notice for the SAFER Bay Project's Draft Environmental Impact Report (DEIR). After the October 15, 2025 Project Review meeting, SFPUC had multiple internal meetings on the project.

SFPUC is requesting for an extension to the January 23, 2026 deadline to thoroughly review the DEIR and provide feedback. 1

Please let me know if it is possible. Thank you.

Elton Wu

Pronouns: He/ Him

Environmental Compliance and Land Planner

SFPUC Water Enterprise

Natural Resources and Lands Management Division

525 Golden Gate Avenue, 10th Floor

San Francisco, CA 94102

cell: (415) 971-7657

ewu@sfwater.org

SFPUC2

San Francisco Water Power Sewer
Operator of the Hetch Hetchy Regional Water System

525 Golden Gate Ave
San Francisco, CA 94102
(415) 554-3155
sfpuc.gov

January 23, 2026

Tess Byler, Senior Project Manager
San Francisquito Creek Joint Powers Authority (SFCJPA)
750 Menlo Avenue, Suite 250
Menlo Park, CA 94025
Via email: tbyler@sfcjpa.org

Re: Strategy to Advance Flood Protection, Ecosystems and Recreation along San Francisco Bay Project - Draft Environmental Impact Report

Dear Ms. Tess Byler:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (EIR) for the Strategy to Advance Flood Protection, Ecosystems, and Recreation Along San Francisco Bay (SAFER) Project (Project). This important Project is designed to protect the communities of Menlo Park, East Palo Alto, and Redwood City from current tidal flooding and projected sea level rise. The SFPUC's comments are below and in the attached Table of SFPUC Comments.

The City and County of San Francisco owns land within the Project area, known as the SFPUC Property at Ravenswood. This land and its facilities and infrastructure are operated and maintained by the San Francisco Public Utilities Commission (SFPUC). For the purposes of this letter, the SFPUC Property at Ravenswood is referred to as "SFPUC property". 1

The SFPUC Property within the Project area is located in the City of Menlo Park and the City of East Palo Alto, south of the Dumbarton Bridge and along San Francisco Bay with an entrance and egress on University Avenue. The SFPUC property connects several water transmission pipelines within the Project area (Bay Division Pipelines Nos. 1, 2, and 5). Additional SFPUC assets at this location include the Bay Tunnel. The SFPUC property also includes the land southeast of Pond SF2 and the Peninsula Sportsman's Club remediation site.

Daniel Lurie
Mayor

Joshua Arce
President

Stephen E. Leveroni
Vice President

Avni Jamdar
Commissioner

Kate H. Stacy
Commissioner

Meghan Thurlow
Commissioner

Dennis J. Herrera
General Manager

Background

The SFPUC manages over 150 miles of pipeline right-of-way (ROW) in three San Francisco Bay Area counties. This ROW and associated assets are part of the Hetch Hetchy Regional Water System providing water to approximately 2.7 million customers, and the SFPUC property is an integral part of the SFPUC ROW lands. The SFPUC monitors and protects its lands by reviewing proposed projects and activities that may affect SFPUC lands and infrastructure for consistency with SFPUC policies and plans. 1 cont.

The primary purpose of the SFPUC's ROW lands is to serve as utility corridors for water transmission and are managed for the delivery, operation, maintenance, and protection of its drinking water supply system. Secondary uses of SFPUC ROW lands may be permitted only if those uses do not in any way interfere with, endanger or damage existing or future operations or the security of those systems.

Comments Regarding the Draft EIR

Since the SFPUC has a land right within the Project site that gives it discretionary authority, the SFPUC should be listed as a responsible agency pursuant to the California Environmental Quality Act (CEQA). If staging or other construction activities are proposed on SFPUC fee owned property, then the SFPUC would be a responsible agency under CEQA. This should be stated in the environmental review document. 2

The SFPUC understands that the Draft EIR analyzes the project on SFPUC parcels ("Dumbarton Approach Reach") on a programmatic level due to the conceptual nature of the design for this area or reach. Further project-level environmental review may be required under CEQA once the project details for the Dumbarton Approach Reach are fully known. Depending on whether the project details could result in new significant impacts, the project-level environmental review would result in either an EIR addendum or a subsequent or supplemental EIR. 3

The attached SFPUC land use policies should be included in the land use analysis and general analysis of the Draft EIR. Land use and planning analyses under CEQA generally consider the compatibility of a project with neighboring areas, change to or displacement of existing uses, and consistency of a project with relevant local land use policies. The magnitude of land use conflicts or compatibility issues depends on the extent to which a project physically divides an established community or conflicts with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect such that an adverse impact on the environment occurs. 4

Peninsula Sportsmen's Club

The former Peninsula Sportsman's Club is located within part of the Project boundaries, per Figure 2-26. The Peninsula Sportsmen's Club was historically used for skeet- and trapshooting from 1939 to 1994, resulting in the contamination of soils with hazardous materials from the type of shot used by the club members. The Peninsula Sportsmen's Club declared bankruptcy and abandoned the site, leaving the SFPUC, as the property owner, responsible for the remediation of the contaminated site under an order from the San Francisco Bay Regional Water Quality Control Board (RWQCB). Contaminants in the site soils included lead, arsenic, antimony, and polynuclear aromatic hydrocarbons in the former firing ranges and in the adjacent salt pond. In 2009, the SFPUC implemented the Baylands Recovery Project Final Phase 1B Remedial Action Firing Range East Cap which completed the remediation work with the installation of a clay cap over the firing range. 5

Damage to the clay cap could potentially result in the release of hazardous materials into the environment. Therefore, the SFPUC strongly recommends identifying an alternative location for staging and construction laydown activities. Construction near or any alteration of the clay cap will require extensive coordination with both the SFPUC and the RWQCB.

Please consider relocation of the proposed levee farther east and south of the remediation site to avoid construction on or near the clay cap. Another alternative would be to install a flood wall in this stretch, instead of a levee, which would have a smaller footprint and more easily avoid disturbing the clay cap. These alternatives should be included and analyzed in the final EIR.

SFPUC's Existing and Future Use of the Site

The SFPUC's multiple parcels would be bisected by the Project's proposed levee design, which could limit access for future SFPUC activities and projects. For example, SFPUC plans include removing the inactive pipes and pipe bridge, including the portion extending beyond the shoreline into San Francisco Bay. The SFPUC has already developed a construction approach for this work, however, with a 3:1 slope, the proposed levee would be too steep for heavy equipment and construction vehicles to navigate. The SFPUC requests that the project team revise the design to provide adequate and reliable access for future SFPUC construction activities. Additionally, the project team must ensure that the levee structure can support the heavy loads associated with pipeline removal operations. 6

The existing site currently drains toward San Francisco Bay; however, the proposed levee would alter drainage patterns. The current levee design would likely cause stormwater to back up on the landward side of the levee. As part of routine maintenance 7

and inspections, the SFPUC Water Supply and Treatment Division periodically dewaters pipelines at the Ravenwood Valve House and will need to install new piping and associated infrastructure to adequately dewater the pipes. Therefore, the existing SFPUC dewatering culvert must remain accessible and functional, or an acceptable alternative must be provided by the Project. 7 cont.

The Project will need to return to SFPUC Project Review as it continues to move forward. We look forward to working with your team to address the issues raised in this letter and the attached table. 8

If you have any questions or need more information, please contact Elton Wu, Environmental Compliance and Land Planner, at ewu@sfwater.org or (415) 971-7657.

Sincerely,

Steven R. Ritchie

Steven R. Ritchie
Assistant General Manager, Water

Attachments: Table of SFPUC Comments
Final Interim Water Pipeline Right of Way Use Policy
Final Amended Right of Way Integrated Vegetation Management Policy

cc: SFPUC staff

SFPUC Comments
Strategy to Advance Flood Protection, Ecosytems, and Recreation Along San Francisco Bay (SAFER BAY) Project
Draft Environmental Impact Report
Prepared by San Franciscquito Creek Join Powers Authortity and ESA

Section No.	Page No.	Draft Environmental Impact Report Text	SFPUC Comment	
1.3	1-5	Table 1-1 Additional Public Outreach Regarding the Safer Bay Project	Table 1-1 should include the two Project Review meetings held for the Project with the SFPUC on 5/3/23 and 10/15/25.	9
2.2	2-3	*The Project also includes actions within land owned by the State of California...San Francisco Public Utilities Commission (SFPUC),....*	Please revise as follows: T*he Project also includes actions within land owned by the State of California…City and County of San Francisco (managed by the San Francisco Public Utilities Commission or SFPUC),…*	10
2.3.2	2-3	*Expand opportunities for recreation and community connectivity in collaboration with the Bay Trail*	As shown in Figure 2 5, no trail is currently proposed through SFPUC property, and the SFPUC maintains its preference that the trail alignment remain entirely outside SFPUC owned lands. Trespassing is an active and persistent challenge in the area, and the SFPUC continues to devote significant effort to managing these issues. The SFPUC recommends including a Project alternative in this EIR with the levee alignment farther from SFPUC property to reduce risk of trespass associated with increased recreational use of the area.	11
2.3.2	2-3	Minimize future maintenance requirements.	What does this mean? Please explain or provide examples.	12

2	2-35		The SFPUC retains the right to disallow any use that, at the SFPUC's sole discretion, may interfere with, endanger or damage existing or future SFPUC operations, security, or facilities. Among other restrictions, the SFPUC prohibits any use on its ROW property that: 1. Satisfies an open space or other entitlement requirement for a project. 2. Would conflict with the SFPUC's legal obligations to the SFPUC remediation area. 3. Would create an unreasonable burden for the SFPUC (or its ratepayers) in the use of its property for utility purposes. The SFPUC reasonably anticipates that its property in the City of Menlo Park will be available for future SFPUC utility infrastructure and capital projects. 4. Is otherwise inconsistent with SFPUC plans and policies.	13
2	2-35		The levee bisects multiple SFPUC parcels, making the land unusable. The SFPUC reasonably expects the full use of its ROW land.	14
2	2-35	*This reach would protect active SFPUC infrastructure, and it is assumed that abandoned SFPUC infrastructure within the construction corridor for the levee would be demolished as part of the Project* .	How much of the abandoned infrastructure would be demolished? Would it include the portion that extends beyond the shoreline and over the bay? Will it be removed from the site? If any portion of the abandoned infrastructure remains after the construction of the proposed project, the new levee will need to provide construction access.	15

2.4.2	2-15 2-35	Figure 2-5 *Proposed Reach Conditions* *Recreation*	Figure 2-5 shows no proposed trail through SFPUC property. Regarding the SF2 Trail, the DEIR states that the "...southern portion of the existing SF2 Trail would terminate at the new levee"…. At a meeting with the SFPUC on 10/15/25, the project proponents expressed a desire to construct a trail on top of the proposed levee through SFPUC property. Please be advised that the SFPUC strongly prefers the existing trail alignment shown in Figure 2-5 that is located adjacent to, but outside of the property boundary of the SFPUC's property.	16
2.4.2	2-35	*Proposed Reach Conditions* *Infrastructure* *Refer to Appendix INFRA for a list of utilities and encroachments that have been identified within the reach and proposed actions to address each. This reach would protect active SFPUC infrastructure, and it is assumed that abandoned SFPUC infrastructure within the construction corridor for the levee would be demolished as part of the Project. An existing stormwater pump station north of SR 84 and appurtenant structures would be modified.*	Please note in this section that the planned demolition of abandoned SFPUC infrastructure includes the section of pipeline that extends beyond the shoreline and into the bay. For more information, please contact Eric Choi, SFPUC Engineer, at echoi@sfwater.org .	17
2.7	2-63	*The SBSPRP and/or Refuge would be responsible for monitoring and maintenance of proposed restoration areas. Maintenance activities would be completed by existing staff; no new staff would be hired for Project operation and maintenance.*	Trespassing remains an active and persistent challenge in the area. SFPUC cannot commit additional staffing, maintenance, or operational resources to support new or existing infrastructure. The project proponent should expect that frequent fence repairs and other repairs will be necessary in response to trespass and vandalism. Adequate maintenance resources will be needed.	18

Table 3.1-2	3.1-6	*16" Water Transmission Main Project–Purdue Ave (City of East Palo Alto.) The water transmission main project includes the installation of a new turnout connection to the SFPUC (San Francisco Public Utilities Commission) system to feed the Ravenswood Business District and future development in that area.*	SFPUC will need to review any proposed turnout connection through its Project Review Process. The project sponsor should not assume project approval until the SFPUC has vetted the proposal and provided authorization.	19
3.1.5	3.1-6 to 3.1-10	Table 3.1-2 Projects Considered in Cumulative Impact Analysis	Please include the SFPUC's demolition of its inactive pipelines and caissons in the cumulative analysis. For more information, please contact Eric Choi, SFPUC Engineer, at echoi@sfwater.org .	20
3.10	3.10-3	Table 3.10-1 Cortese List Sites	The entry for the Peninsula Sportsmen's Club should note that the remediation of the site included the installation of a clay cap that should not be disturbed in order to prevent the escape of contaminants into the environment.	21
3.10 3.11	3.10-1 to 3.11-57	Section 3.10 (Hazards, Hazardous Materials, and Wildfire) and Section 3.11 (Hydrology and Water Quality)	Section 3.10 (Hazards, Hazardous Materials, and Wildfire) and Section 3.11 (Hydrology ad Water Quality) should include mitigation measures to avoid or minimize potentially significant impacts from the disturbance of the clay cap encapsulating hazardous soil contaminants at the former Peninsula Sportsmen's Club during construction of the proposed project.	22
2.6.3	116	[Potential staging area on SFPUC property.]	Figure 2-26 shows potential "Staging and Materials Laydown" area on SFPUC remediation site. Remove laydown area from map as disturbance of the remediation site could damage the clay cap and result in the dispersal of hazardous contaminants.	23

2.7	117	**Operation and Maintenance -***Member agencies would be responsible for conducting routine inspections of the shoreline protection facilities, operating flood gates, managing interior drainage, and maintaining the Bay Trail. Existing landowners would be responsible for maintaining public trails on their property .* *18 The SBSPRP and/or Refuge would be responsible for monitoring and maintenance of proposed restoration areas. Maintenance activities would be completed by existing staff; no new staff would be hired for Project operation and maintenance*	Trespassing remains an active and persistent challenge in the area. SFPUC cannot commit additional staffing, maintenance, or operational resources to support new or existing infrastructure. The project proponent should expect that frequent fence repairs and other repairs will be necessary in response to trespass and vandalism. Adequate maintenance resources will be needed. When the SFPUC authorizes improvements on its property, the authorization is to one entity. In other words, the SFPUC will work with a single entity to authorize any proposed improvements. In addition, the SFPUC requires a single contact for reporting needed repairs.	24
Table Infra-1	924	*Barrier fencing associated with SFPUC Ravenswood Pump Station (pending additional coordination with SFPUC management).*	SFPUC will need to review any proposed fence relocation through its Project Review Process. The project sponsor should not assume project approval until the project review process occurs.	25

Hetch Hetchy
Regional Water System
Services of the San Francisco Public Utilities Commission

SFPUC Interim Water Pipeline Right of Way Use Policy for San Mateo, Santa Clara, and Alameda Counties

Approved January 13, 2015

by

SFPUC Resolution No. 15-0014

as an amendment to the SFPUC Real Estate Guidelines

SFPUC Water Pipeline Right of Way Use Policy for San Mateo, Santa Clara, and Alameda Counties

As part of its utility system, the San Francisco Public Utilities Commission (SFPUC) operates and maintains hundreds of miles of water pipelines. The SFPUC provides for public use on its water pipeline property or right of way (ROW) throughout Alameda, Santa Clara, and San Mateo counties consistent with our existing plans and policies. The following controls will help inform how and in which instances the ROW can serve the needs of third parties—including public agencies, private parties, nonprofit organizations, and developers—seeking to provide recreational and other use opportunities to local communities.

Primarily, SFPUC land is used to deliver high quality, efficient and reliable water, power, and sewer services in a manner that is inclusive of environmental and community interests, and that sustains the resources entrusted to our care. The SFPUC's utmost priority is maintaining the safety and security of the pipelines that run underneath the ROW.

Through our formal Project Review and Land Use Application and Project Review process, we may permit a secondary use on the ROW if it benefits the SFPUC, is consistent with our mission and policies, and does not in any way interfere with, endanger, or damage the SFPUC's current or future operations, security or facilities.[1] No secondary use of SFPUC land is permitted without the SFPUC's consent.

These controls rely on and reference several existing SFPUC policies, which should be read when noted in the document. Being mindful of these policies while planning a proposed use and submitting an application will ease the process for both the applicant and the SFPUC. These controls are subject to change over time and additional requirements and restrictions may apply depending on the project.

The SFPUC typically issues five-year revocable licenses for use of our property, with a form of rent and insurance required upon signing.[2]

Note: The project proponent is referred to as the "Applicant" until the license agreement is signed, at which point the project proponent is referred to as the "Licensee."

[1] SFPUC Guidelines for the Real Estate Services Division, Section 2.0.
[2] SFPUC Guidelines for the Real Estate Services Division, Section 3.3.

I. *Land Use, Structures, and Compliance with Law*

The following tenets govern the specifics of land use, structures, and accessibility for a project. Each proposal will still be subject to SFPUC approval on a case-by-case basis.

A. SFPUC Policies. The Applicant's proposed use must conform to policies approved by the SFPUC's Commission, such as the SFPUC's Land Use Framework (http://sfwater.org/index.aspx?page=586).

B. Americans with Disabilities Act Compliance. The Applicant must demonstrate that a Certified Access Specialist (CASp) has reviewed and approved its design and plans to confirm that they meet all applicable accessibility requirements.

C. Environmental Regulations. The SFPUC's issuance of a revocable license for use of the ROW is subject to compliance with the California Environmental Quality Act (CEQA). The Applicant is responsible for assessing the potential environmental impacts under CEQA of its proposed use of the ROW. The SFPUC must be named as a Responsible Agency on any CEQA document prepared for the License Area. In addition, the Applicant shall provide to SFPUC a copy of the approved CEQA document prepared by the Applicant, the certification date, and documentation of the formal approval and adoption of CEQA findings by the CEQA lead agency. The SFPUC will not issue a license for the use of the ROW until CEQA review and approval is complete.

D. Crossover and Other Reserved Rights. For a ROW parcel that bisects a third party's land, the Applicant's proposed use must not inhibit that party's ability to cross the ROW. The Applicant must demonstrate any adjoining owner with crossover or other reserved rights approves of the proposed recreational use and that the use does not impinge on any reserved rights.

E. Width. The License Area must span the entire width of the ROW.
   - *For example, the SFPUC will not allow a 10-foot wide trail license on a ROW parcel that is 60 feet wide.*

F. Structures. Structures on the ROW are generally prohibited. The Licensee shall not construct or place any structure or improvement in, on, under or about the entire License Area that requires excavation, bored footings or concrete pads that are greater than six inches deep.

   i. Structures such as benches and picnic tables that require shallow (four to six inches deep) cement pads or footings are generally permitted on the ROW. No such structure may be placed directly on top of a pipeline or within 20 feet of the edge of a pipeline.

   ii. The SFPUC will determine the permitted weight of structures on a case-by-case basis.

- *When the SFPUC performs maintenance on its pipelines, structures of significant weight and/or those that require footings deeper than six inches are very difficult and time-consuming to move and can pose a safety hazard to the pipelines. The longer it takes the SFPUC to reach the pipeline in an emergency, the more damage that can occur.*

G. Paving Materials. Permitted trails or walkways should be paved with materials that both reduce erosion and stormwater runoff (e.g., permeable pavers).

H. License Area Boundary Marking. The License Area's boundaries should be clearly marked by landscaping or fencing, with the aim to prevent encroachments.

I. Fences and Gates. Any fence along the ROW boundary must be of chain-link or wooden construction with viewing access to the ROW. The fence must include a gate that allows SFPUC access to the ROW.[3] Any gate must be of chain-link construction and at least 12 feet wide with a minimum 6-foot vertical clearance.

II. *Types of Recreational Use*

Based on our past experience and research, the SFPUC will allow simple parks without play structures, community gardens and limited trails.

A. Fulfilling an Open Space Requirement. An applicant may not use the ROW to fulfill a development's open space, setback, emergency access or other requirements.[4] In cases where a public agency has received consideration for use of SFPUC land from a third party, such as a developer, the SFPUC may allow such recreational use if the public agency applicant pays full Fair Market Rent.

B. Trail Segments. At this time, the SFPUC will consider trail proposals when a multi-jurisdictional entity presents a plan to incorporate specific ROW parcels into a fully connected trail. Licensed trail segments next to unlicensed parcels may create a trail corridor that poses liability to the SFPUC. The SFPUC will only consider trail proposals where the trail would not continue onto, or encourage entry onto, another ROW parcel without a trail and the trail otherwise meet all SFPUC license requirements.

III. *Utilities*

A. Costs. The Licensee is responsible for all costs associated with use of utilities on the License Area.

[3] SFPUC Right of Way Requirements.
[4] SFPUC Guidelines for the Real Estate Services Division, Section 2.0.

B. Placement. No utilities may be installed on the ROW running parallel to the SFPUC's pipelines, above or below grade.[5] With SFPUC approval, utilities may run perpendicular to the pipelines.

C. Lights. The Licensee shall not install any light fixtures on the ROW that require electrical conduits running parallel to the pipelines. With SFPUC approval, conduits may run perpendicular to and/or across the pipelines.

- Any lighting shall have shielding to prevent spill over onto adjacent properties.

D. Electricity. Licensees shall purchase all electricity from the SFPUC at the SFPUC's prevailing rates for comparable types of electrical load, so long as such electricity is reasonably available for the Licensee's needs.

IV. *Vegetation*

A. The Applicant shall refer to the SFPUC Integrated Vegetation Management Policy for the *minimum* requirements concerning types of vegetation and planting. (http://www.sfwater.org/index.aspx?page=431.) The Licensee is responsible for all vegetation maintenance and removal.

B. The Applicant shall submit a Planting Plan as part of its application.

(Community garden applicants should refer to Section VII.C for separate instructions.)

i. The Planting Plan should include a layout of vegetation placement (grouped by hydrozone) and sources of irrigation, as well as a list of intended types of vegetation. The SFPUC will provide an area drawing including pipelines and facilities upon request.

ii. The Applicant shall also identify the nursery(ies) supplying plant stock and provide evidence that each nursery supplier uses techniques to reduce the risk of plant pathogens, such as Phytophthora ramorum.

V. *Measures to Promote Water Efficiency*[6]

A. The Licensee shall maintain landscaping to ensure water use efficiency.

B. The Licensee shall choose and arrange plants in a manner best suited to the site's climate, soil, sun exposure, wildfire susceptibility and other factors. Plants with similar water needs must be grouped within an area controlled by a single irrigation valve

[5] SFPUC Land Engineering Requirements.
[6] SFPUC Rules and Regulations Governing Water Service to Customers, Section F.

C. Turf is not allowed on slopes greater than 25 percent.

D. The SFPUC encourages the use of local native plant species in order to reduce water use and promote wildlife habitat.

E. Recycled Water. Irrigation systems shall use recycled water if recycled water meeting all public health codes and standards is available and will be available for the foreseeable future.

F. Irrigation Water Runoff Prevention. For landscaped areas of any size, water runoff leaving the landscaped area due to low head drainage, overspray, broken irrigation hardware, or other similar conditions where water flows onto adjacent property, walks, roadways, parking lots, structures, or non-irrigated areas, is prohibited.

VI. *Other Requirements*

A. Financial Stability. The SFPUC requires municipalities or other established organizations with a stable fiscal history as Licensees.

   i. Applicants must also demonstrate sufficient financial backing to pay rent, maintain the License Area, and fulfill other license obligations over the license term.

B. Smaller, community-based organizations without 501(c)(3) classifications must partner with a 501(c)(3) classified organization or any other entity through which it can secure funding for the License Area over the license term. Maintenance. The Licensee must maintain the License Area in a clean and sightly condition at its sole cost.[7] Maintenance includes, but is not limited to, regular weed abatement, mowing, and removing graffiti, dumping, and trash.

C. Mitigation and Restoration. The Licensee will be responsible, at its sole cost, for removing and replacing any recreational improvements in order to accommodate planned or emergency maintenance, repairs, replacements, or projects done by or on behalf of the SFPUC. If the Licensee refuses to remove its improvements, SFPUC will remove the improvements I at the Licensee's sole expense without any obligation to replace them.

D. Encroachments. The Licensee will be solely responsible for removing any encroachments on the License Area. An encroachment is any improvement on SFPUC property not approved by the SFPUC. Please read the SFPUC ROW Encroachment Policy for specific requirements. If the Licensee fails to remove encroachments, the SFPUC will remove them at Licensee's sole expense. The Licensee must regularly patrol the License Area to spot encroachments and remove them at an early stage.

[7] SFPUC Framework for Land Management and Use.

E. Point of Contact. The Licensee will identify a point of contact (name, position title, phone number, and address) to serve as the liaison between the Licensee, the local community, and the SFPUC regarding the License Agreement and the License Area. In the event that the point of contact changes, the Licensee shall immediately provide the SFPUC with the new contact information. Once the License Term commences, the point of contact shall inform local community members to direct any maintenance requests to him or her. In the event that local community members contact the SFPUC with such requests, the SFPUC will redirect any requests or complaints to the point of contact.

F. Community Outreach.

i. Following an initial intake conversation with the SFPUC, the Applicant shall provide a Community Outreach Plan for SFPUC approval. This Plan shall include the following information:

1. Identification of key stakeholders to whom the Applicant will contact and/or ask for input, along with their contact information;

2. A description of the Applicant's outreach strategy, tactics, and materials

3. A timeline of outreach (emails/letters mailing date, meetings, etc.); and

4. A description of how the Applicant will incorporate feedback into its proposal.

ii. The Applicant shall conduct outreach for the project at its sole cost and shall keep the SFPUC apprised of any issues arising during outreach.

iii. During outreach, the Applicant shall indicate that it in no way represents the SFPUC.

G. Signage. The SFPUC will provide, at Licensee's cost, a small sign featuring the SFPUC logo and text indicating SFPUC ownership of the License Area at each entrance. In addition, the Licensee will install, at its sole cost, an accompanying sign at each entrance to the License Area notifying visitors to contact the organization's point of contact and provide a current telephone number in case the visitors have any issues. The SFPUC must approve the design and placement of the Licensee's sign.

VII. *Community Gardens*

The following requirements also apply to community garden sites. As with all projects, the details of the operation of a particular community garden are approved on a case-by-case basis.

A. The Applicant must demonstrate stable funding. The Applicant must provide information about grants received, pending grants, and any ongoing foundational support.

B. The Applicant must have an established history and experience in managing urban agriculture or community gardening projects. Alternatively, the Applicant may demonstrate a formal partnership with an organization or agency with an established history and experience in managing urban agriculture or community gardening projects

C. During the Project Review process, the Applicant shall submit a Community Garden Planting Plan that depicts the proposed License Area with individual plot and planter box placements, landscaping, and a general list of crops that may be grown in the garden.

D. The Applicant shall designate a Garden Manager to oversee day-to-day needs and serve as a liaison between the SFPUC and garden plot holders. The Garden Manager may be distinct from the point of contact, see Section VI.E.

E. The Licensee must ensure that the Garden Manager informs plot holders about the potential for and responsibilities related to SFPUC repairs or emergency maintenance on the License Area. In such circumstances, the SFPUC is not liable for the removal and replacement of any features on the License Area or the costs associated with such removal and replacement.

F. The Licensee must conduct all gardening within planter boxes with attached bottoms that allow for easy removal without damaging the crops.

Hetch Hetchy
Regional Water System
Services of the San Francisco Public Utilities Commission

AMENDMENT TO THE

RIGHT OF WAY INTEGRATED VEGETATION MANAGEMENT POLICY

Approved January 13, 2015

by

SFPUC Resolution No. 15-0014

12.000 RIGHT OF WAY INTEGRATED VEGETATION MANAGEMENT POLICY

12.001 General

The San Francisco Public Utilities Commission ("SFPUC") is responsible for the delivery of potable water and the collection and treatment of wastewater for some 800,000 customers within the City of San Francisco; it is also responsible for the delivery of potable water to 26 other water retailers with a customer base of 1.8 million. **The following policy is established to manage vegetation on the transmission, distribution and collection systems within the SFPUC Right of Way ("ROW") so that it does not pose a threat or hazard to the system's integrity and infrastructure or impede utility maintenance and operations.**

The existence of large woody vegetation[1], hereinafter referred to as vegetation, and water transmission lines within the ROW are not compatible and, in fact, are mutually exclusive uses of the same space. Roots can impact transmission pipelines by causing corrosion. The existence of trees and other vegetation directly adjacent to pipelines makes emergency and annual maintenance very difficult, hazardous, and expensive, and increases concerns for public safety. The risk of fire within the ROW is always a concern and the reduction of fire ladder fuels within these corridors is another reason to modify the vegetation mosaic. In addition to managing vegetation in a timely manner to prevent any disruption in utility service, the SFPUC also manages vegetation on its ROW to comply with local fire ordinances enacted to protect public safety.

One of the other objectives of this policy is to reduce and eliminate as much as practicable the use of herbicides on vegetation within the ROW and to implement integrated pest management (IPM).

12.002 Woody Vegetation Management

1.0 Vegetation of any size or species will not be allowed to grow within certain critical portions of the ROW, pumping stations or other facilities as determined by a SFPUC qualified professional, and generally in accordance with the following guidelines.

1.1 Emergency Removal

SFPUC Management reserves the right to remove any vegetation without prior public notification that has been assessed by a SFPUC qualified professional as an immediate threat to transmission lines or other utility infrastructure, human life and property due to acts of God, insects, disease, or natural mortality.

1.2 Priority Removal

Vegetation that is within 15 feet of the edge of any pipe will be removed and the vegetative debris will be cut into short lengths and chipped whenever possible. Chips will be spread upon the site where the vegetation was removed. Material that cannot be chipped will be hauled away to a proper disposal site.

[1] Woody vegetation is defined as all brush, tree and ornamental shrub species planted in (or naturally occurring in) the native soil having a woody stem that at maturity exceeds 3 inches in diameter.

If vegetation along the ROW is grouped in contiguous stands[2], or populations, a systematic and staggered removal of that vegetation will be undertaken to replicate a natural appearance. Initial removal[3] will be vegetation immediately above or within 15 feet of the pipeline edges; secondary vegetation[4] within 15 to 25 feet from pipelines will then be removed.

1.3 Standard Removal

Vegetation that is more than 25 feet from the edge of a pipeline and up to the boundary of the ROW will be assessed by a SFPUC qualified professional for its age and condition, fire risk, and potential impact to the pipelines. Based on this assessment, the vegetation will be removed or retained.

1.4 Removal Standards

Each Operating Division will develop its own set of guidelines or follow established requirements in accordance with local needs.

2.0 All stems of vegetation will be cut flush with the ground and where deemed necessary or appropriate, roots will be removed. All trees identified for removal will be clearly marked with paint and/or a numbered aluminum tag.

3.0 Sprouting species of vegetation will be treated with herbicides where practicable, adhering to provisions of Chapter 3 of the San Francisco Environment Code.

4.0 Erosion control measures, where needed, will be completed before the work crew or contractors leave the work site or before October 15 of the calendar year.

5.0 Department personnel will remove in a timely manner any and all material that has been cut for maintenance purposes within any stream channel.

6.0 All vegetation removal work and consultation on vegetation retention will be reviewed and supervised by a SFPUC qualified professional. All vegetation removal work and/or treatment will be made on a case-by-case basis by a SFPUC qualified professional.

7.0 Notification process for areas of significant resource impact that are beyond regular and ongoing maintenance:

7.1 County/City Notification – The individual Operating Division will have sent to the affected county/city a map showing the sections of the ROW which will be worked, a written description of the work to be done, the appropriate removal time for the work crews, and a contact person for more information. This should be done approximately 10 days prior to start of work. Each Operating Division will develop its own set of guidelines in accordance with local need.

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[2] A stand is defined as a community of trees possessing sufficient uniformity in composition, structure, age, arrangement, or condition to be distinguishable from adjacent forest communities to form a management unit.
[3] Initial removal is defined as the vegetation removed during the base year or first year of cutting.
[4] Secondary vegetation is defined as the vegetative growth during the second year following the base year for cutting.

7.2 Public Notification – The Operating Division will have notices posted at areas where the vegetation is to be removed with the same information as above also approximately 10 days prior to removal. Notices will also be sent to all property owners within 300 feet of the removal site. Posted notices will be 11- by 17-inches in size on colored paper and will be put up at each end of the project area and at crossover points through the ROW. Questions and complaints from the public will be handled through a designated contact person. Each Operating Division will develop its own set of guidelines in accordance with local needs.

12.003 Annual Grass and Weed Management

Annual grasses and weeds will be mowed, disked, sprayed or mulched along the ROW as appropriate to reduce vegetation and potential fire danger annually. This treatment should be completed before July 30 of each year. This date is targeted to allow the grasses, forbs and weeds to reach maturity and facilitate control for the season.

12.004 Segments of ROW that are covered by Agricultural deed rights

The only vegetation that may be planted within the ROW on those segments where an adjacent owner has Deeded Agricultural Rights will be: non-woody herbaceous plants such as grasses, flowers, bulbs, or vegetables.

12.005 Segments of ROW that are managed and maintained under a Lease or License

Special allowance may be made for these types of areas, as the vegetation will be maintained by the licensed user as per agreement with the City, and not allowed to grow unchecked. Only shallow rooted plants may be planted directly above the pipelines.

Within the above segments, the cost of vegetation maintenance and removal will be borne by the tenant or licensee exclusively. In a like fashion, when new vegetative encroachments are discovered they will be assessed by a SFPUC qualified professional on a case-by-case basis and either be permitted or proposed for removal.

The following is a guideline for the size at maturity of plants (small trees, shrubs, and groundcover) that may be permitted to be used as landscape materials. Note: All distance measurements are for mature trees and plants measured from the edge of the drip-line to the edge of the pipeline.

- Plants that may be permitted to be planted directly above existing and future pipelines: shallow rooted plants such as ground cover, grasses, flowers, and very low growing plants that grow to a maximum of one foot in height at maturity.
- Plants that may be permitted to be planted 15–25 feet from the edge of existing and future pipelines: shrubs and plants that grow to a maximum of five feet in height at maturity.
- Plants that may be permitted to be planted 25 feet or more from the edge of existing and future pipelines: small trees or shrubs that grow to a maximum of twenty feet in height and fifteen feet in canopy width.

Trees and plants that exceed the maximum height and size limit (described above) may be permitted within a leased or licensed area provided they are in containers and are above ground. Container load and placement location(s) are subject to review and approval by the SFPUC.

Low water use plant species are encouraged and invasive plant species are not allowed.

All appurtenances, vaults, and facility infrastructure must remain visible and accessible at all times. All determinations of species acceptability will be made by a SFPUC qualified professional.

The above policy is for general application and for internal administration purposes only and may not be relied upon by any third party for any reason whatsoever. The SFPUC reserves the right at its sole discretion, to establish stricter policies in any particular situation and to revise and update the above policy at any time.

Ramaytush Tribe
Association of Ramaytush Ohlone
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21 January 2026

Safer Bay Project: Draft EIR 2026

To Whom It May Concern,

The Ramaytush Tribe (Tribe) and the Association of Ramaytush Ohlone (ARO) submit the following comments regarding the Safer Bay Project Draft EIR (Project). The Tribe and ARO support the Project especially because it proposes a nature-based solution to address sea level rise and flooding. To that end, the Tribe and ARO are available to consult on the design and other phases of the project. 1

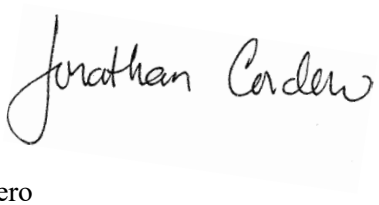
Regarding tribal cultural resources, the Tribe and ARO support the general analysis and proposed mitigation measures with some exceptions. First, because of the rise in sea level over time, tribal cultural resources, like shell mounds, increasing moved upward along the slope of the shoreline; therefore, the likelihood of disturbing tribal cultural resources becomes increasingly more possible the closer ground disturbance and boring are to the existing shoreline, except of course in areas of where fill is present. Since the proposed levees are close to the shoreline, and in some cases may be along or near the historical shoreline, the likelihood of disturbing tribal cultural resources is increased. The assessment that "undiscovered archaeological resources" would be impacted is "potentially significant" makes sense given the proximity of the project areas to known archaeological sites. 2

Second, the assessment of cultural significance offered in existing laws and regulations (i.e., "Significance Criteria") are not always consistent with Native conceptions of cultural significance. Also, the absence of records at the NAHC or at the Northwest Information Center, as noted in the EIR does not preclude the possibility for the disturbance of tribal cultural resources; therefore, we request tribal consultation to assist in deciding in which project areas tribal monitoring is necessary. 3

Third, the Ramaytush are the original peoples of the San Francisco Peninsula—no other tribes have a legitimate claim to our aboriginal territory. The inclusion of other tribes on the NAHC Contact List constitutes a violation of our sovereignty, which is recognized in Executive Orders B-10-11 and N-15-19, and in existing law. Further, the NAHC Contact List is a product of underground regulations and does not have the force of law in the State of California. Because the Ramaytush Tribe is sovereign in its territory, we politely request that only the Ramaytush Tribe be consulted on the project. While it may be too late for that, we suggest 1) that the Ramaytush Tribe's comments be prioritized above the comments of other tribes and 2) that only the Ramaytush Tribe be selected for tribal monitoring. 4

The Ramaytsuh Tribe and the Association of Ramaytush Ohlone request further testing and tribal consultation in the project areas (CUL-1, CUL-2, CUL-3, and CUL-4) as deemed necessary. 5

Sincerely,



Jonathan Cordero
Chair, Ramaytush Tribe
Executive Director, Association of Ramaytush Ohlone

From: Tess Byler <tbyler@sfcjpa.org>
Sent: Friday, January 23, 2026 5:29 PM
To:
Subject: Fw: New form submission assigned to you: SAFER Bay Project

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From: Streamline <noreply@specialdistrict.org>
Sent: Friday, January 23, 2026 5:20:19 PM
To: Tess Byler <tbyler@sfcjpa.org>
Subject: New form submission assigned to you: SAFER Bay Project

SAN FRANCISQU
JOINT POWERS

SAFER Bay Project

Name:	Marlene
Email:	co-organizer@bhempowered.org
General Comments:	Please include these comments in the administrative record for the Project, notwithstanding their submission time. 1
Chapter 1:	
Comment(s):	
Chapter 2:	
Comment(s):	
Chapter 3:	

Comment(s):	The DEIR's Health Risk Assessment assumes that 100% of construction equipment will use "Tier 4 Final" engines (the cleanest available). However, Mitigation Measure AIR-1 does not explicitly mandate this. Request: The Final EIR must include a binding Mitigation Measure that explicitly prohibits Tier 2 and Tier 3 equipment. The project must mandate Tier 4 Final engines for all off-road diesel equipment, with verification required before construction begins. Requirement for Real-Time Air Monitoring in East Palo Alto and Belle Haven. The proposed "Best Management Practices" (watering soil twice a day) are insufficient for communities with high rates of asthma and respiratory distress. We cannot rely on standard practices when construction is occurring so close to homes and schools. Request: We demand that the Project Proponent install real-time PM10 and PM2.5 dust monitors at fence line locations near sensitive receptors in both East Palo Alto and Belle Haven. Data from these monitors must be publicly accessible to ensure transparency and accountability during active construction. 2 3
Chapter 4:	
Comment(s):	
Chapter 5:	
Comment(s):	
Chapter 6:	
Comment(s):	

Reply / Manage

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CITIZENS COMMITTEE TO COMPLETE THE REFUGE

SIERRA CLUB BAY ALIVE LOMA PRIETA CHAPTER

SAN MATEO COUNTY BIRD ALLIANCE

green foothills

January 23, 2026

Sent via email only to tbyler@sfcjpa.org

San Francisquito Creek Joint Powers Authority
ATTN: Tess Byler,
Sr. Project Manager
750 Menlo Avenue #250
Menlo Park, CA 94025

Re: SAFER Bay Project Draft Environmental Impact Report

Dear Ms. Byler,

Citizens Committee to Complete the Refuge is submitting this joint letter on behalf of ourselves, the Sierra Club Loma Prieta Chapter's Bay Alive Campaign, San Mateo County Bird Alliance and Green Foothills. We respectfully submit these comments regarding the Draft Environmental Impact Report (DEIR) for the Strategy to Advance Flood protection, Ecosystems and Recreation (SAFER) Project (Project). We commend the San Francisquito Creek Joint Powers Authority
(SFCJPA) for its efforts to provide sea level rise resiliency for our Bayside communities and ecosystems through this project and for its repeated outreach to impacted communities throughout the planning process.

Our non-profit organizations all work to advance sustainable, nature-based solutions to sea level rise that protect, restore and enhance our natural wetlands and Bayland ecosystems. Together, we represent tens of thousands of Bay Area residents with a vested interest in the health and preservation of the San Francisco Bay and its ecosystems, and recognize the integral role they play in our defense against the threats of sea level rise. Our organizations have been involved with this project throughout the planning process. We have attended public meetings, met with community groups, and submitted comments on previous planning documents. 1

Based on our review of the DEIR, we submit the following comments on the Project, organized by overarching concerns that extend beyond a single reach or CEQA category, followed by comments related to specific CEQA categories. In addition, please see Exhibits A and B for memoranda prepared by our technical consultants.

- Exhibit A: January 17, 2026 Memorandum from Jenn Hyman, PE
- Exhibit B: June 14, 2022 Memorandum from Peter Baye, Ph.D., Coastal Ecologist

Thank you for your consideration of these comments. 1 cont.

OVERARCHING CONCERNS

This section summarizes cross-cutting deficiencies in the SAFER Bay Draft Environmental Impact Report (DEIR) that prevent meaningful public review and undermine the DEIR's adequacy under CEQA, particularly given the project's scale, complexity, and century-scale planning horizon. The concerns below are not intended to duplicate the issue-specific analyses that follow; rather, they identify systemic shortcomings that recur across multiple resource areas and that must be corrected before the DEIR can support informed decisionmaking. 2

Detailed technical support for many of these concerns is provided in Exhibit A (Hyman Memo), which evaluates the DEIR's analysis, assumptions, and conclusions, and identifies specific deficiencies in the DEIR's treatment of impacts, mitigation, and deferral. Additional foundational considerations raised during scoping, and still relevant to the adequacy of the DEIR's programmatic approach, are provided in Exhibit B (Baye Memo), including setting-dependent impact analysis, ecological performance considerations, and the importance of phasing and clear design definitions.

1. The DEIR Does Not Function as an Adequate Programmatic EIR and Cannot Reliably Support Tiering

A central deficiency of the DEIR is that it does not provide the analytical foundation or enforceable standards necessary to function as a programmatic EIR for the many reaches evaluated only at a conceptual level. As documented in Exhibit A (Hyman Memo), the DEIR identifies a range of potentially significant impacts while deferring critical components of impact assessment and mitigation design to future project-level review, without establishing clear performance standards, decision criteria, or constraints that would ensure later designs avoid, minimize, and mitigate impacts consistent with CEQA. 3

For program-level reaches, the DEIR does not provide sufficient location-specific information for the public to determine whether the DEIR captures the reasonably foreseeable "upper range" of impacts that could occur from future construction and operations and maintenance activities, nor whether proposed measures are likely to reduce impacts to a less-than-significant level. This severely constrains the ability of the public and responsible agencies to evaluate whether deferral is appropriate, whether mitigation is adequate, and whether supplemental review will be required. Based on the DEIR's current level of disclosure, it is evident that **supplemental EIRs will be necessary for program-level reaches**, and that full agency and public review must be an essential component of those additional CEQA processes. 4

These concerns are compounded by the setting-dependent analysis issues identified during scoping (see Exhibit B, Baye Memo), which underscore that ecological performance and impacts are driven not simply by generic cross-sections, but by where features are sited within the land–shore gradient and by local habitat and hydrologic context. Without enforceable 5

standards that require setting-specific analysis and design responses, tiering would be unreliable and would risk narrowing choices before the public can evaluate impacts and alternatives.

5 cont.

2. Document Organization and Reach Presentation Prevent Meaningful Review

The DEIR is extraordinarily difficult to work with because information relevant to individual reaches is widely scattered across a very large document, with project-level and program-level reaches intermingled. As a result, it is often difficult to determine (i) what is proposed where, (ii) the level of design detail available for any given reach, and (iii) whether the impact analysis and mitigation measures correspond to the reach-specific conditions and design assumptions. This problem affects not only public comprehension, but also the ability of agencies to assess the adequacy of the impact analysis and efficacy of proposed mitigation measures and to identify enforceable conditions of approval.

6

In addition, the DEIR does not consistently provide plan-view clarity regarding alignments and positions of levees, transition features, trails, and channel modifications relative to tidal marsh extent and the high tide line. As emphasized in Exhibit B (Baye Memo), impacts and ecological performance are often more dependent on siting and surrounding landscape setting than on the dimensions of a typical cross-section. Where that siting context is not plainly shown and analyzed, generalized programmatic conclusions can be confusing or misleading.

3. Ambiguity in Core Project Definitions and Design Assumptions Undermines Analysis Across Resource Areas

The DEIR relies on broad terms, such as “horizontal levee,” “habitat transition zone,” and related “nature-based” features, without providing clear, consistent definitions that distinguish materially different design types in terms of slope, substrate, hydrology, vegetation expectations, and maintenance requirements. As explained in Exhibit B (Baye Memo), over-broad usage of these terms can be misleading, particularly where very different features are treated as interchangeable despite having fundamentally different ecological functions, construction requirements, and long-term management implications.

7

As documented in Exhibit A (Hyman Memo), this definitional ambiguity also has practical consequences for CEQA adequacy: it hampers the ability of the public to identify impacts that should be analyzed, how mitigation will function, and whether future tiered projects will be held to meaningful, enforceable standards. This lack of clarity is especially consequential for biological resources and wetlands/waters impacts, where mitigation effectiveness and habitat function depend on the specifics of design and setting.

At a minimum, the DEIR should be revised to emphasize variability among transition zones, clarify the nomenclature to distinguish among them when referencing specific facilities (e.g., 3:1 slope transition zone) and provide estimates of the width of the transition zone that could be anticipated. (See Chapter 3.4 Biological Resources, below, for further discussion and citations.)

4. The DEIR Systematically Jumps to Mitigation Without Demonstrating Avoidance and Minimization

Across multiple reaches, particularly at the program level, the DEIR too often proceeds directly to compensatory mitigation (e.g., habitat restoration in other reaches) without first demonstrating that feasible opportunities to **avoid** and **minimize** impacts have been rigorously analyzed and incorporated into project design. This sequencing is inconsistent with CEQA's requirement to analyze and adopt feasible measures that avoid or substantially lessen significant effects, and it is also inconsistent with established regulatory expectations for impacts to jurisdictional wetlands and waters. 8

As detailed in Exhibit A (Hyman Memo), the DEIR frequently lacks sufficient evaluation of design alternatives and alignment variations that could reduce the footprint of fill, preserve tidal connectivity, or avoid sensitive areas—especially for program-level reaches where the DEIR relies on generalized concepts rather than reach-specific analysis. As further noted in Exhibit B (Baye Memo), wetland and marsh impacts are not limited to acreage: hydrogeomorphic function, tidal exchange, sediment dynamics, and habitat structure can be degraded or lost in ways that are not offset simply by restoration elsewhere. (See Section 3.4 Biological Resources for application to wetlands/waters and habitat function; and see Section 3.11 Hydrology and Water Quality for related channel and tidal prism implications.)

5. Failure to Evaluate Phasing as a Core Avoidance/Minimization and Sea Level Rise Adaptation Strategy

Given the project's long design life and stated intent to be implemented over time, the DEIR should treat phasing not as an implementation detail, but rather as a central strategy for reducing near-term impacts, preserving adaptive capacity, and avoiding unnecessary early harm to wetlands, waters, and other sensitive resources. As documented in Exhibit A (Hyman Memo), the DEIR does not meaningfully evaluate phased or incremental construction alternatives and mitigation measures commensurate with the temporal nature of sea level rise risk and budget/land acquisition uncertainty. 9

As explained in Exhibit B (Baye Memo), constructing levees and transition features to accommodate a full century of sea level rise in a single construction phase can front-load habitat impacts and cause non-linear effects on tidal drainage networks, wildlife home ranges, and ecological connectivity well before those impacts are necessary to address actual flood risk. The DEIR should therefore analyze phased approaches, such as staged elevation increases or incremental implementation measures, as alternatives and/or mitigation where feasible. (See Section 3.4 Biological Resources for further discussion.)

6. Cross-Cutting Deficiencies in Stormwater, Groundwater Rise, Contamination Pathways, and Remedy Interactions 10

Water quality, stormwater management, and groundwater rise are central to this project and to its environmental risks. The DEIR nonetheless defers key information and relies on future plans and future design to address contamination pathways, dewatering and excavation effects, and interactions with existing remedial systems, often without sufficient detail to support findings of less-than-significant (or less-than-significant-with-mitigation) impacts. As documented in Exhibit A (Hyman Memo), this reliance on deferred plans and unspecified measures is a recurring deficiency that undermines CEQA findings across multiple resource areas.

These issues also have direct implications for biological resources and wetlands and waters. Construction disturbance, in-water work, excavation in contaminated areas, dewatering, and alterations in drainage patterns can mobilize contaminants and impair wetland function in ways that must be analyzed with reach-specific specificity.

10 cont.

7. Construction Methods and Secondary/Indirect Impact Pathways Are Under-Disclosed

A major weakness of the DEIR is the failure to provide sufficient detail regarding construction methods, staging, soil handling, dewatering, equipment, spoil management, and related best management practices in a manner that allows the public to evaluate impacts beyond the immediate footprint or understand if the proposed impact footprint is reasonable (particularly for the temporary impact footprints). This deficiency affects multiple resource areas, including air quality, hazards, hydrology and water quality, and biological resources. It also undermines the credibility of several DEIR conclusions that assume effective implementation of mitigation measures without disclosing the operational details needed to determine whether those measures are feasible and enforceable.

11

Where the DEIR relies on future plans (e.g., health and safety plans, soil and groundwater management plans, and other programmatic documents) to support findings, it must provide sufficient standards and content requirements now so that those plans can be evaluated for effectiveness and enforceability.

8. Technical Correction Relevant to South of Bay Road Reach

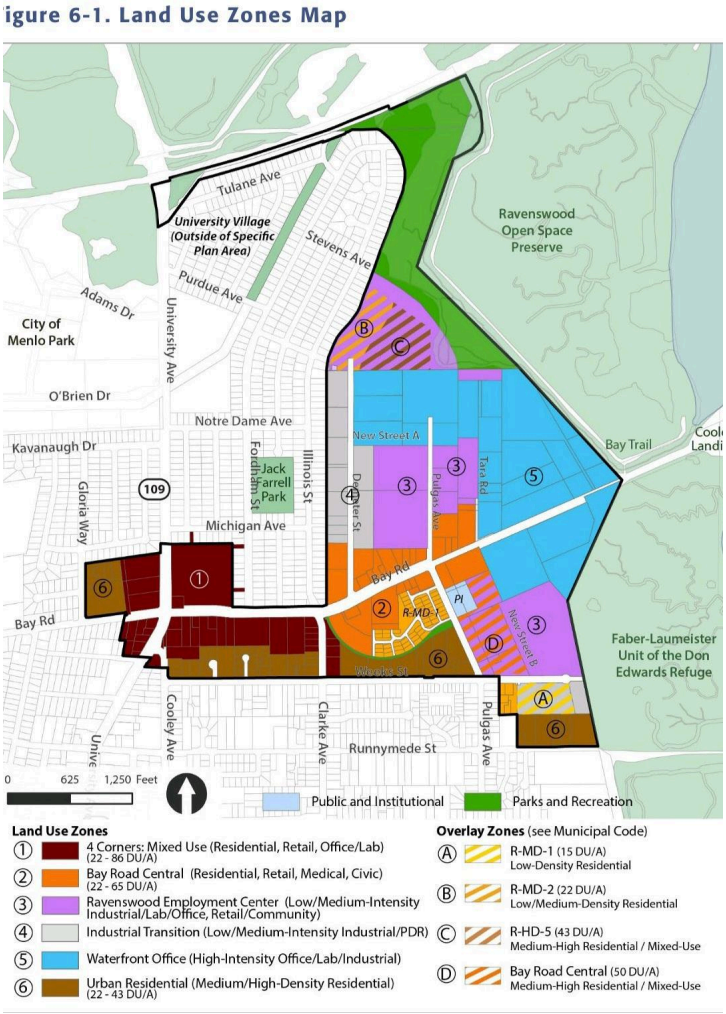
Faber-Laumeister Unit Management: There are multiple discussions in the DEIR that incorrectly describe ownership and management of the Faber-Laumeister Unit. We provide corrections.

In 1994 the City of Palo Alto and the US Fish & Wildlife Service signed the Faber/Laumeister Cooperative License Agreement.[1] The parties agreed to cooperate in the protection and enhancement of the unique tidal salt marsh ecosystem of the Faber-Laumeister marshes, then and now host to endangered species. The lands would be managed as part of the San

12

[1] City of Palo Alto and US Fish and Wildlife Service, Faber/Laumeister Cooperative License Agreement, 4/13/1994. Provided as an attachment of this letter.

Francisco Bay National Wildlife Refuge[2] using work plans[3] applying federal standards of the National Wildlife Refuge System.



East Palo Alto/ 2024 RBDSP Zoning Map correctly labels Faber-Laumeister Unit

Today the City of Palo Alto remains the landowner and the lands are Refuge-managed[4]. While the City holds rights of ownership, in its agreement to the habitat and species values, it defers property access and other land management decisions to the Refuge. Examples of incorrect text include P. 2-1, P. 3.11-3 (2 locations) and P. 3.17-6 and P. 3.17-7. Other incidents may exist. Please make all appropriate corrections in the DEIR.

12 cont.

[2] The Refuge has since been renamed the Don Edwards San Francisco Bay National Wildlife Refuge.
[3] USFWS, Don Edwards San Francisco Bay National Wildlife Refuge Comprehensive Conservation Plan, 2012: https://iris.fws.gov/APPS/ServCat/Reference/Profile/43999

[4] City of Palo Alto, Comments to SAFER Bay NOP, 06/06/2022: See DEIR APPENDIX SCOP

CEQA CATEGORY-SPECIFIC COMMENTS

CHAPTER 3.3 AIR QUALITY

Findings of less-than-significant (LTS) for Impact AIR-3 using Mitigation Measure AIR-1: Best Management Practices for Construction Related Fugitive Dust Emission can be assured by monitoring PM2.5 emissions near the identified sensitive receptors to confirm that health impacts remain within acceptable ranges. 13

CHAPTER 3.4 BIOLOGICAL RESOURCES

General Comments That Apply to Multiple Reaches

CCCR's SAFER Project NOP comment letter included a memorandum from Dr. Peter Baye (Baye, Exhibit B) in which he made the following general recommendations for the preparation of an adequate environmental assessment:

1) "*The EIR should clarify and define explicit working definitions and criteria (including slopes, substrates, hydrology, vegetation types) for all project-defining terms like "horizontal levee", "habitat transition zone", "ecotone levee", noting both synonyms and relevant distinctions*." (Baye, Exhibit B)

The DEIR states that, "*Tidal salt marsh–upland transition zone (T-zone) habitat would be integrated on the bayward side of levee segments*." (Page 2-8) This is not fundamentally different than the SAFER Project NOP statement that, "*The Project also proposes to increase the diversity of habitat by building tidal salt marsh-upland transition zone habitat (transition zone habitat) on the bayward slope of appropriate segments of levee adjacent to existing and/or restored tidal salt marsh*." (SAFER Bay NOP, April 22, 2022)

Dr. Baye had this response to the NOP description of transition zone habitat: "*This general description does not distinguish the fundamental design and impact context of whether levee features are built landward or bayward of the* ***existing high tide line****, in tidal wetland gradients*." (emphasis added). 14

We can find no definition/description in the DEIR for the use of the term "habitat transition zone", "transition zone" or T-zone". Reviewers may not be aware that by definition, the toe of the habitat transition zone begins at the existing high tide line **adjacent to the marsh** and extends landward. In almost every reach, the SAFER Project is proposing to create "transition zone habitat" on levee slopes that extend downward onto the existing marsh plain, well beyond the high tide line.

The DEIR fails to define what is meant by the term "transition zone habitat" in the document, and to describe reach-specific details on how, and to what extent, fill will be placed in existing marshes. Additionally, the EIR should clearly outline all measures considered to avoid or minimize the extent of the encroachment into existing tidal marsh.

2) *"Corresponding plan view figures in the EIR should make levee alignments and positions plain, in relation to tidal marsh and high tide line positions. Otherwise, programmatic environmental assessment of typical project designs would almost certainly result in confusing or misleading general conclusions."* (Baye, Exhibit B)

Even for the project-level reaches, no information is provided on the location of the high tide line in relation to the toe of the levee, or the actual distance of the bayward levee slope for the flood protection infrastructure adjacent to tidal marshes. The project description for both the program and the project-level reaches is missing this critical information which must be provided. 15

3)*"…the EIR should consider alternatives and mitigation measures that include levee or habitat transition zones also raised in stages or increments to distribute and dissipate habitat impacts over decades, minimize near-term wetland fill impacts, in closer pace with sea level rise rather than a full century ahead of it."*

"The EIR should consider active management of internal marsh high tide refuge habitats as potential mitigation for short-term and long-term impacts of levee construction, to enhance resilience of cross-shore high tide refuge habitats (landward-edge and interior refuge habitats interacting at different tide levels.)" (Baye, Exhibit B) 16

The EIR must identify reach-specific opportunities to minimize significant adverse impacts by incrementally phasing the construction of levees near marshes, and through the creation and/or maintenance of internal marsh high-tide refugia for the tidal marsh listed species that are found throughout the SAFER Project area.

4*) "The EIR should consider opportunities to set back recreational trails as far as possible from the bayward slopes of levees or habitat transition zones, instead of designing them for full levee top (road) span. The bayward side of the levee top should be evaluated in the EIR designs as components of buffer zones that provide vegetative screening (knee-high or taller brushy or bristly native upland scrub vegetation…to discourage people or dogs from establishing social trails to transition zone wildlife habitats."* (Baye, Exhibit B) 17

The EIR fails to assess trail impacts to wildlife in each reach and to identify Bay Trail segments that can be modified from the proposed 20-foot width to help mitigate wildlife impacts from trail users.

Specific Project Reaches

<u>Dumbarton Approach (north of SR 84)</u>

The DEIR includes a discussion on filling tidal channels: *"In some locations, flood protection infrastructure or construction-phase work within 10 feet bayward of the levee toe would block and/or dewater tidal slough channels that help to distribute tidal waters throughout adjacent marsh habitats located bayward of the construction-phase temporary impact area. This could result in the degradation of up to 37.55 acres of tidal marsh due to muting of tidal action in Ravenswood Slough and Ravenswood Open Space Preserve. However, the Project avoids this* 18

impact because the Project's habitat restoration design incorporates grading of replacement tidal slough channels to maintain the existing tidal flows to the broader marsh. The design for the area and length of the tidal channels is based on providing sufficient hydraulic capacity to maintain the hydrologic regime. The tidal channels have also been designed to use existing channels where possible and maintain similar sinuosity, width, and depth as the affected channels, where feasible. Replacement tidal channels would be constructed as a first order of in-marsh work to provide alternative hydraulic connectivity pathways and avoid hydrologic impacts on the tidal marsh. Replacement tidal channels would be monitored to verify their proper function as part of the post-construction habitat restoration monitoring program to be implemented as part of ***Mitigation Measure BIO-26****. Affected channels are identified in Faber and Laumeister marshes, Ravenswood Open Space Preserve, and Ravenswood Slough. The locations of replacement tidal channel excavations are shown in Figures 3.4-2d and 3.4-2j. Nonetheless, impacts during construction would result from grading of these replacement tidal slough channels, which would convert some vegetated tidal salt marsh to unvegetated slough channel habitat.* (Page 3.4-69)

18 cont.

Figure 3.4-2i for the program-level section of the reach adjacent to the Mosely Tract Marsh shows that the flood protection infrastructure (P-2) will cover and fill a substantial tidal channel in the back of the marsh nearest to State Route 84. This channel appears to provide tidal flow to a substantial portion of tidal marsh in this area. This impact has not been identified in the DEIR; additionally, unlike in Figure 3.4-2j for the Tech Campus Reach, there is no indication that there will be a "Replacement Tidal Channel Excavation."

The DEIR fails to identify this impact and provide the scientific basis for the lack of a replacement tidal channel in the programmatic EIR. A full hydrological study of the impacts to tidal marsh habitat from filling this channel must be undertaken and mitigation measures must be identified to ensure tidal flow to all portions of the marsh are unimpeded and adequate to sustain existing marsh vegetation.

<u>Substation and Marsh Restoration Reach</u>

3.4.1 Environmental Setting

Background Reports and Surveys

The DEIR references two studies that do not appear to be available as appendices to the DEIR or available online. Please provide access to these reports:

- H.T. Harvey & Associates, 2024. *SAFER Bay Project – Aquatic Resources Delineation Report.* April 2024.
- H. T Harvey & Associates, 2024. *SAFER Bay Project Wetland Habitat and Western Snowy Plover Impacts and Restoration Options Evaluation.*

19

3.4.3 Impacts and Mitigation Measures

Mitigation Measure BIO-4 Compensatory Mitigation for Congdon's Tarplant
The mitigation proposed states

20

> "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 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."

20 cont.

The preservation of one plant for each plant affected is inadequate. A 1:1 mitigation ratio, plant-for-plant does not adequately ensure that the preserved plant is reproductively viable. Instead, the reproductive rate of preserved plants is biologically more meaningful. We suggest mean seed output per preserved plant that is comparable to that of a reference population is a better measure of mitigation success than mere plant survival. The mitigation measure should include a 5-year monitoring period of mean seed production.

Comments Regarding Proposed Western Snowy Plover Mitigation Measures

The DEIR proposes mitigation measures to offset the following programmatic impacts to the federally listed, threatened Western Snowy Plover (SNPL):

> "During the construction phase, a total of approximately 5.31 acres of managed pond and 0.15 acre of intertidal mudflat habitat where the western snowy plover may occur would be affected in the Program area (Table 3.4-4), including within the North of Bay Road, Dumbarton Approach, Bayfront Expressway, Bedwell Bayfront Park, and Marsh Road reaches (Figures 3.4-2e, f-l, n-v). Permanent impacts would occur within a total of 8.10 acres of managed pond habitat in these reaches."

Project level impacts would include

> "…Construction-phase temporary impacts in the Project area would occur in 238.04 acres of managed pond, 3.10 acres of intertidal mudflats, and 0.11 acre of non-tidal saline pond, including in and directly south of Pond SF2 in the Dumbarton Reach (Figures 3.4-3h) and Ponds R1 and R2 in the Substation and Marsh Restoration Reach (Figure 3.4-3i), that provide potential western snowy plover habitat. Permanent impacts in the Project area would occur in 25.83 acres of managed pond and 0.30 acre of non-tidal saline pond in the two areas where flood protection infrastructure is built. In addition, opening Ponds R1 and R2 would result in the loss of 476.1 acres of pond bottom within 572.1 acres of managed pond habitat."

21

Ponds R1 and R2 are being proposed for tidal wetlands restoration. The DEIR states that the amount of suitable SNPL habitat varies in Ponds R1 and R2 because currently, there is no way to discharge water from ponds R1 and R2 and the pond bottoms may not have dried to the extent needed for successful SNPL nesting, however, "Loss of Ponds R1 and R2 would result in the loss of an average of approximately 12 nests per year, but up to approximately 34 potential nests per year, which represents the sum of the maximum number of nests documented in these two ponds (Table 3.4-6)."

The DEIR proposes in Pond SF2 [App BIO1, Section 4.0 Pond SF2 WSP Habitat Enhancements] to

- Reconfigure cells U2, U3, and U4 into one contiguous pond by removing interim berms.
- Grade down the nesting islands that were created in cell U2 to match the pond bottom elevation.
- Utilize removed berm material to block some of the borrow ditches.
- Widen the perimeter borrow ditch to reduce mammalian predator access.
- Increase the area over which oyster shell or gravel will be spread to aid in the ability of SNPL to hide from predators (camouflage).
- Adding avian predator perch deterrents to power towers, where feasible.
- Increase funding for predator management activities in efforts to support SNPL breeding.

In addition, SNPL habitat enhancement is being proposed in Pond R3 [App BIO1, Section 5.0 Pond R3 WSP Habitat Enhancements]:

- Increase the ability of SNPL to hide from predators by adding oyster shell or gravel (crypsis) to the pond bottom.
- Widen the borrow ditch adjacent to the SAFER levee to reduce mammalian predator access.
- Increase funding for predator management.
- Monitor the stability of the berm between Pond R3 and Ravenswood Slough and potentially construct targeted berm repair as needed.

The DEIR states the proposed improvements in Pond R3 will improve water management capabilities and therefore "allow the pond to be managed to provide consistent breeding and foraging habitat." In addition, the depth of water within the borrow ditch would be managed to a depth of at least 3' to discourage access to the pond bottom by mammalian predators.

21 cont.

Monitoring of SNPL nesting success within Ponds SF2, R1, R2, and R3 has been conducted by the San Francisco Bay Bird Observatory since 2007. The annual reports provided by SFBBO confirmed that factors believed to be limiting the numbers of SNPL nests in the Ravenswood ponds were

- Whether pond bottoms were dry during the nesting season
- Whether there was adequate foraging habitat in proximity to nest sites (and associated with foraging habitat, the steepness of borrow ditch side slopes, see below)
- Predation by avian predators
- Disturbance from illegal trespass onto pond bottoms

With respect to the condition of pond bottoms, available foraging habitat, borrow ditch side slopes, and management of water levels within the borrow ditches, the 2008 SFBBO Annual Report states[5]

> "We banded 5 chicks from the 2 nests on RSF2 and none of the 5 chicks banded on RSF2 are known to have fledged. The number of Snowy Plovers we observed in RSF2 decreased throughout the season and we stopped seeing them in the pond by the

[5] Robinson, Caitlin, Jill Demers and Cheryl Strong. 2008. *Western Snowy Plover Numbers, Nesting Success, Fledging Success and Avian Predator Surveys in the San Francisco Bay, 2008.* San Francisco Bay Bird Observatory/U.S. Fish and Wildlife Service.

> middle of July. RSF2 dried almost completely throughout the season and may not have provided good foraging habitat later in the season. We did not band the R1 and R4 chicks due to lack personnel for re-sightings…The borrow ditches in the R1-R4 ponds are very steep sided and therefore do not provide ideal foraging habitat for Snowy Plovers. Ponds R1-R4 may serve as an ecological trap by attracting Snowy Plovers to what seems like good foraging habitat but as the pond dries the steep borrow ditches may decrease fledgling rates. In order to enhance Snowy Plover foraging and nesting habitat, the water levels should be managed in R1-R4 to maintain higher water levels throughout the season."

21 cont.

The importance of being able to introduce water to the Ravenswood ponds to reduce the amount of vegetation on the pond bottoms, being able to remove water from the pond bottoms prior to the beginning of the SNPL nesting season to ensure they are suitably dry to support SNPL nesting, ensuring that water control structures are properly maintained to avoid accidental flooding of occupied nests, maintaining appropriate levels of water within the borrow ditches to provide foraging habitat for SNPL adults and juveniles, while also providing a barrier to illegal trespass and access by terrestrial predators, are themes that are repeated in the SNPL nesting success annual reports. These recommendations have been incorporated into the mitigation measures proposed in this DEIR.

To address concerns of increasing nest densities and reducing nest depredation within the managed ponds of SNPL Recovery Unit 3, a pilot Snowy Plover habitat enhancement study at the Eden Landing Ecological Reserve Unit was conducted from 2008-2014 testing the efficacy of spreading oyster shell and/or gravel across the pond bottoms to provide camouflage for SNPL against a multitude of predators. The 2019 SFBBO Annual Report[6] came to the following conclusion:

> The study indicated that oyster shell habitat enhancement increased Snowy Plover nest abundance and nest success within treatment areas. With these findings as support, 20.23 hectares of oyster shell were spread in two plots (Western = 6.47 ha; Eastern = 13.67 ha) as a large-scale habitat enhancement project in September of 2014 at Eden Landing pond E14. Subsequent monitoring has shown that the oyster shell enhancement plots can attract a large number of Snowy Plovers to breed (87 nests in 2019), but have not significantly improved nest success to date."

22

However, that same report included under a list of recommendations:

> "Addition of oyster shell or other materials such as gravel at RSF2 cell 3, R3, and R1-2 could partially mitigate against depredation related to potential high-density Snowy Plover breeding following breaching of R4…"

The 2024 SFBBO Annual Report[7] makes a similar recommendation, " Addition of oyster shell and/or gravel, removal of all remaining perches at SF2 cell 3 and R3 could help to mitigate

[6] Pearl, Ben, Anqi Chen and Yiwei Wang. 2019. *Western Snowy Plover Monitoring in the San Francisco Bay, Annual Report 2019.* San Francisco Bay Bird Observatory.

[7] Schwarz, Maddy, Katie LaBarbera and Josh Scullen. 2024. *Western Snow Plover and California Least Tern Monitoring in the San Francisco Bay, Annual Report 2023.* San Francisco Bay Bird Observatory.

increased predation risk related to increased Snowy plover nesting density following breaching of R4," and therefore, "…could also result in improved breeding success."

The mitigation measures proposed in the DEIR include both the addition of oyster shell and/or gravel to the pond bottoms of ponds SF2 and R3, as well as removing any remaining elevated structures to the extent possible, adding avian perch deterrents to PG & E transmission towers and increasing funding for predator management. 22 cont.

- Will funding be available to deploy oyster shell and/or gravel across the pond bottoms of ponds R3 and SF2?
- Based upon consultations with PG & E, is it likely that predator perch deterrents can be added to the many power transmission towers that exist within proximity to ponds R3 and SF2, and will funding be available to implement this mitigation measure? 23

Expansion of borrow ditches in ponds R3 and SF2 are proposed as a mitigation measure to provide foraging habitat for adult and juvenile SNPL, but also to serve as terrestrial predator deterrents and also as a deterrent against illegal trespass onto the pond bottom. AppBIO1 discusses at a programmatic level, two options for managing water surface elevations in the SF2 Pond Complex:

1) the installation of a permanent pumping system that is capable of pumping water in and out of the pond complex [higher upfront costs], or
2) utilizing a portable pump and "hiring a pumping company to manage the water surface elevation during the nesting season and for weed management [lower upfront costs and no maintenance obligations].

The DEIR also states, "During the next phase of design, both options will be discussed with all interested parties, and a preferred option will be selected." 24

- How would the need for a permanent need, until some unknown date into the future, "for a contract with a private company for service" be structured to ensure that there is no lapse in what is a crucial component of managing the SF2 pond complex for SNPL?
- There would likely need to be a dedicated funding source, and responsible entity for overseeing the contract – where would the funds come from and who would the responsible entity be? SAFER? USFWS? The local governments benefitting from the SAFER project?
- Is there a similar requirement for management of water surface elevations in R3?
- With respect to the perimeter borrow ditch in pond R3, please provide a figure that more clearly depicts the alignment of the expanded borrow ditch in the northeastern corner of the pond.

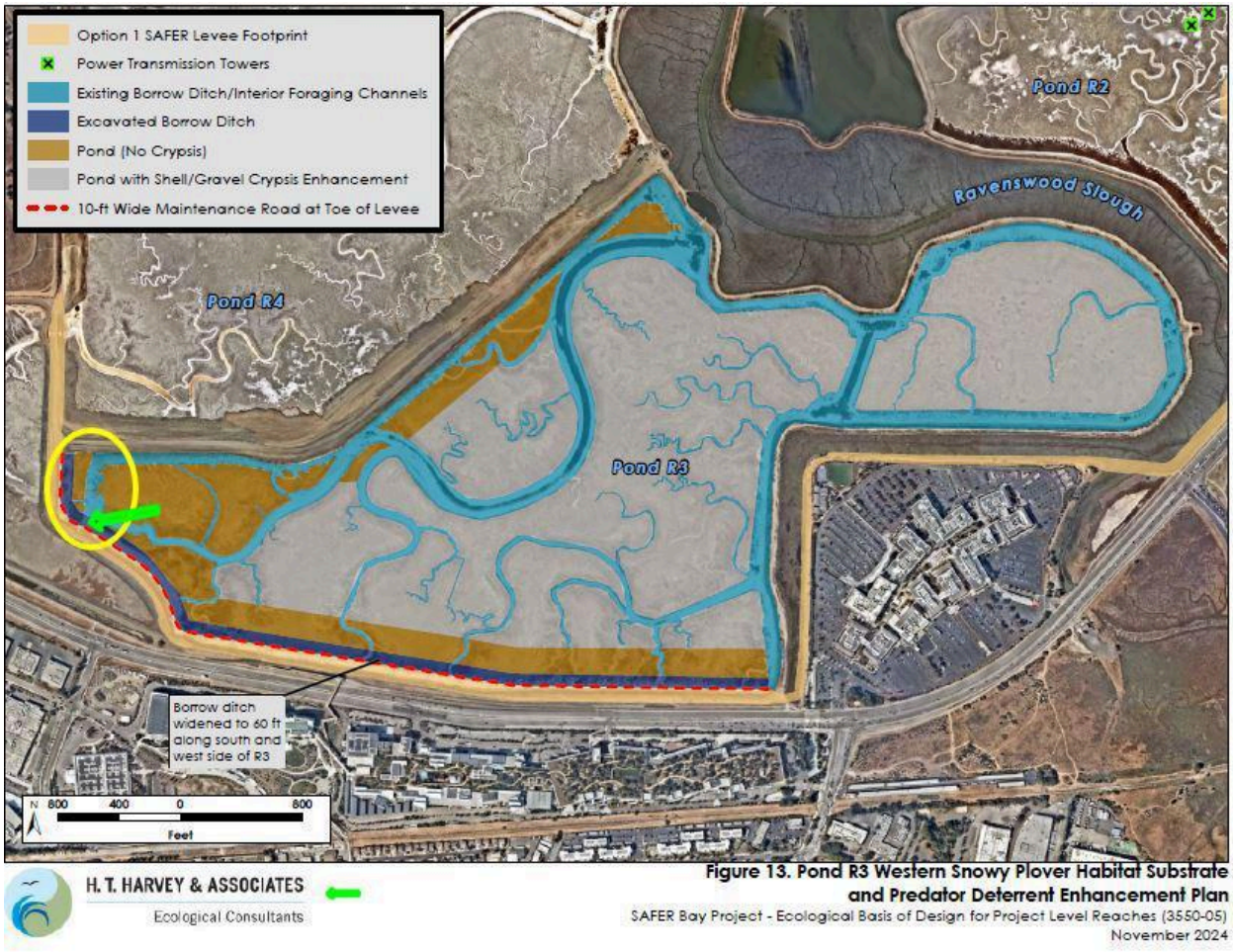


Figure 13. Pond R3 Western Snowy Plover Habitat Substrate and Predator Deterrent Enhancement Plan
SAFER Bay Project - Ecological Basis of Design for Project Level Reaches (3550-05)
November 2024

24 cont.

- Does the green arrow indicate where the expanded borrow ditch adjacent to ponds R5/S5 intersects with the borrow ditch that runs along the All-American Canal levee?
- Will the expanded borrow ditch width, and management of water surface elevations be sufficient to reduce instances of illegal trespass into pond R3?

Numerous SFBBO SNPL Annual Reports document instances of illegal access into the pond bottom of Ravenswood ponds.

The 2016 SFBBO Annual Report[8] states:

> "At pond R4 on Refuge property on two separate occasions, pedestrians trespassed beyond the locked gate and onto the levee next to the bay. Over the course of the breeding season, three drones were retrieved from the pond bottom of R4. All of these actions would have disturbed Snowy Plovers in adjacent areas and could have resulted in trampling of nests or chicks."

25

[8] Pearl, Ben, Karine Tokatlian and Josh Scullen. 2016. *Western Snowy Plover Monitoring in the San Francisco Bay, Annual Report 2016.* San Francisco Bay Bird Observatory.

The 2018 Annual Report[9] documents trespass in the Ravenswood Complex:

> "At Ravenswood, pedestrians were occasionally seen trespassing into restricted areas. At R4, a pedestrian walking two off-leash dogs was observed trespassing onto the Bayfront levee. On another occasion, several kids were observed riding bikes near the borrow ditch adjacent to the Bayfront levee, but were gone before SFBBO staff could speak with them. All of these incidents of trespass could have disturbed breeding Snowy Plovers."

The 2019 SFBBO Annual Report[10] includes other instances of trespass:

> "On several occasions we directly observed or found evidence of humans trespassing in plover habitat closed to the public. At Ravenswood, pedestrians were consistently seen trespassing onto the bay levee on R4 and onto the R5S pond bottom adjacent to Highway 84."

And in the 2020 SFBBO Annual Report[11] and 2021 SFBBO Annual Report[12]

> "At Ravenswood, pedestrians and cyclists were frequently observed trespassing into sensitive habitat on restricted levees, including at R3, R4, and the All-American Canal."

A recommendation made in the 2013 SFBBO Annual Report[13] is that

> "Managers should also consider low fencing such as is present at SF2 to keep Snowy Plover chicks off of pedestrian trails and roads. Overall, larger tracts of land may need to be kept free of public access entirely, in order to accommodate sensitive species, such as Snowy Plovers."

- Pond R3: will fencing be installed along the Bay Trail? This will not address the issue of the use of drones, which is prohibited on Refuge lands, as well as at Bedwell Bayfront Park, but it will help reduce the amount of illegal trespass.

25 cont.

Mitigation Measure BIO-14: General Wildlife Impact Minimization Measures states

> "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."

26

[9] Pearl, Ben, Anqi Chen and Yiwei Wang. 2019. *Western Snowy Plover Monitoring in the San Francisco Bay, Annual Report 2018.* San Francisco Bay Bird Observatory.
[10] Pearl et al 2019
[11] Pearl, Ben, Anqi Chen and Yiwei Wang. 2020. *Western Snowy Plover Monitoring in the San Francisco Bay, Annual Report 2020.* San Francisco Bay Bird Observatory.
[12] Pearl, Ben, Anqi Chen, Parker Kaye and Yiwei Wang. 2022. *Western Snowy Plover Monitoring in the San Francisco Bay, Annual Report 2021.* San Francisco Bay Bird Observatory.
[13] Robinson-Nilsen, Caitlin, Karine Tokatlian, Josh Scullen and Catherine Burns. 2013. *Western Snowy Plover Monitoring in the San Francisco Bay, Annual Report 2013.* San Francisco Bay Bird Observatory.

This distance should be increased to 600 feet. Several of the SFBBO Annual Reports state the following.

> "Snowy Plovers in the South Bay are very sensitive to recreational disturbance and flush from their nests when walkers are at an average 164 meters when approached directly, or 145.6 meters when passed tangentially (Robinson 2008 and L. Trulio, pers. comm.)."

26 cont.

Given the exponential reduction in the nesting habitat available for SNPL nesting, and the many identified threats to nesting threats that have been identified, the proposed distance of 300 feet is not supportable if one of the goals is maintain a reproductively viable population of SNPL within the Ravenswood pond complex.

SNPL Nest Success

As can be seen from Table 1 (Joint Letter Exhibit C), that summarizes the nest data available from the SFBBO Annual Reports from 2008 (the year that active monitoring of the Ravenswood Pond Complex began) until 2023, the ponds with the highest number of successful nests are highly variable within the complex of ponds R1, R2, R3, R4, R5, and SF2. Of the years the ponds were monitored, the highest total number of detectable nests occurred in 2023 in pond R3 at 35 nests, followed by SF2 in 2010 with a total number of 33 nests detected, followed by SF2 in 2017 with a total number of 32 nests detected and R4 in the same year with a total number of 30 nests detected, and pond R4 in 2015 with a total number of 30 nests detected. However, the total number of nests detected does not provide an adequate representation of nesting success. For example pond R3, in 2023, only had a 54% nest success rate with 15 nests depredated and one nest lost for unknown reasons. In 2010, even though it had the highest number of detected nests within the Ravenswood Pond Complex, SF2 only had a 67% nest success rate with 11 nests depredated or abandoned. Within the Ravenswood Pond Complex, in most years, R1 had the lowest rates of depredation and SF2 consistently had some of the highest rates of depredation. Several of the SFBBO Annual Reports documented the observations of flocks of American Crows and Common Ravens "walking and scavenging of the pond bottom [of SF2] (2009, 2010, 2018, 2019, 2020).

27

Significant Impacts Inadequately Analyzed

The DEIR fails to adequately mitigate four significant impacts of the SAFER project on SNPL at the programmatic and project level, that are identified by the SFBBO Annual Reports:

- Significant loss of SNPL nesting habitat
- Increasing nest density may lead to increased predation
- Increasing nest density may result in interspecies aggression
- Timing of SF2 and R3 enhancements and work proposed in R1 and R2

28

Significant Loss of SNPL Habitat Within the Ravenswood Complex

For the record, we recognize that maintaining pond R1 as a managed pond is extremely difficult due to the ongoing required maintenance of the R1 outboard levee. However, the loss of this pond for nesting SNPL is significant, in years when the pond bottom dries sufficiently to support SNPL nests, R1 has had the lowest rates of nest depredation and the highest rates of successful nests.

The 2016 SFBBO Annual Report[14] observes

> "With Phase 2 actions of the SBSPRP set to effectively reduce Snowy Plover habitat in the Ravenswood complex by 27% [pond R4 restored to tidal action], it is vital that vegetation and water level management be controlled at ponds R1, R2, R3 and RSF2 in order to provide the maximum amount of quality Snowy Plover nesting habitat. In addition, potential habitat enhancement and water control structure improvements at R3 should help to offset the loss of Snowy Plover habitat in R4 and R5." [emphasis added]

The 2019 SFBBO Annual Report[15] states

> "With the impending tidal restoration of pond R4-5S in the Ravenswood Complex as part of Phase 2 of the Project, approximately 27% of currently available Snowy Plover breeding habitat in the Complex will be opened to tidal action. Based upon the large amount of Snowy Plover nests found in the Ravenswood Complex in recent years, we expect that post-restoration, R3, RSF2, and R1-2 will consistently host a larger amount of Snowy Plover breeding." [emphasis added]

And

> "Further enhancement of RSF2 and R1-2 for Snowy Plover breeding, including spreading of a camouflage enhancing substrate (oyster shells, gravel, etc.) and removal of remaining predator perches, could also help to offset the loss of R4." [emphasis added]

However, the 2019 SFBBO Annual Report warns

> "It will be critical to enhance remaining Snowy Plover breeding habitat at R3, R1-2, and RSF2 to account for the higher density of breeding that will likely occur in these areas. A reduction in habitat size could result in increased predation pressure at the Ravenswood Complex, especially by American Crows and Common Ravens, both of which have been frequently observed in the Complex in recent years and believed to be major nest and chick predators. Increased development adjacent to these restoration sites artificially inflates commensal predator populations such as skunks, feral cats and Common Ravens by supplying new food resources, while also confounding predator management opportunities in locations with high visitor use. Without enhancement and informed predator control efforts, population growth at one of the most important breeding sites in Recovery Unit 3 could be impeded." [emphasis added]

28 cont.

[14] Pearl et al. 2016.
[15] Pearl et al. 2019

It is evident that the loss of pond R4 is considered a significant impact to available SNPL breeding habitat within the Ravenswood Complex. The proposed opening of ponds R1 and R2 to tidal action will further exacerbate the losses of SNPL habitat and raises uncertainty of the continued viability of the Ravenswood Complex as one of the "most important breeding sites in SNPL Recovery Unit 3."

In 2021,[16] pond R1 had the highest nest success:

> "While zero banded chicks fledged from SF2 or R3 [the ponds that will remain after implementation of the SAFER project], at least ten banded chicks fledged from both R1 and R4. With an estimate of 43% chick fledging rate and 1.25 chicks fledged per male (n=23, Table 10), R1 appeared to provide the best habitat for chicks to fledge in Ravenswood, as well as some of the best in RU3. This pond dried out to its greatest extent since at least 2013, with some small stretches of the borrow ditch drying up completely in June and July. With a greater amount of area to search, this may have reduced the ability of predators to find chicks, which blend in with the large, lightly colored pond bottom." [emphasis added]

In 2023[17] R1 once again had the highest nesting success in the Recovery Unit:

> "Elsewhere in Ravenswood, R1 continued to be a unique pond for Snowy Plover nesting. In 2021 R1 appeared to provide the best nesting habitat in the Complex, with a 100% hatch rate (n=13). However, due to predation and flooding, the pond did not provide similarly high-quality habitat in 2022, with only 45% of monitored nests (n=22) determined to have hatched. However, in 2023, it was again very successful, with an 87% hatch rate (n=17), the highest in the complex and the highest in the South Bay overall."

Loss of pond R1 is a significant adverse impact to the long-term breeding success of SNPL that has not been adequately analyzed or mitigated. The DEIR acknowledges the impact by stating

> "Loss of Ponds R1 and R2 would result in the loss of an average of approximately 12 nests per year, but up to approximately 34 potential nests per year, which represents the sum of the maximum number of nests documented in these two ponds."

Table 3.4-6 Western Snowy Plover Nests by Pond, estimates that post-project would be 42 nests. The DEIR acknowledges and proposes to mitigate pond management issues such as the need to manage the development of vegetation on the pond bottom, the need to seasonally manage water levels, and the significant predation pressure and proposes mitigation measures to address these impacts, as discussed earlier.

28 cont.

[16] Pearl et al. 2021.
[17] Schwarz et al. 2024.

Higher Nest Densities and Potential Increases in Depredation and Interspecies Aggression

However, reducing available SNPL breeding habitat could result in higher nesting densities, and higher nesting densities could result in higher rates of depredation. The 2010 SFBBO Annual Report[18] provides the following observations and concerns:

> "We recorded highest nest density in the South San Francisco Bay within a shell plot on E8 in 2010 which was spread in 2008. Of the 11 nests in this plot, nine were depredated and two hatched. Overall nest density in shell plots was much higher than the average for the South Bay. This has important implications as the amount of available nesting habitat on salt ponds is reduced by the South Bay Salt Pond Restoration Project. Snowy Plover nesting density will need to increase in order to increase the Snowy Plover breeding population within a smaller habitat footprint. The nest densities observed within the oyster shell plots demonstrates that it may be possible to achieve the higher nest densities needed to reach the recovery goal of 500 breeding birds in the San Francisco Bay. However, in 2010, observed nest success within the shell plots (32%) was no different than nests outside of the shells (31%) at Eden Landing and the proportion of depredated nests was very similar as well (64% in the shell plots compared to 66% outside of the shell plots). In contrast, in 2009, the percentage of depredated nests within the shell plots (8%) was much lower than the rest of the nests at Eden Landing (44%; Robinson-Nilsen et al. 2009b). Page et al. (1983) found that plovers nesting in higher densities had higher depredation rates at Mono Lake. Likewise, it is possible that predators cued in on the presence of the shells plots as a food source. If this is the case, then, oyster shells may eventually function as an ecological trap by attracting many nesting plovers to a low-quality habitat. It is also possible that the reduced predator removal effort at Eden Landing may have contributed to the decreased success as well." [emphasis added]

- Will sufficient funding exist to treat the pond bottoms of SF2 and R3 with oyster shell and/or gravel? Will funding exist to replace the pond bottoms treatment as needed? The SFBBO Annual Reports mention that the treatment may need to be replaced as shells get covered by sediment, etc.
- The DEIR proposes predator management. SF2 and R3 are located in highly visible areas, will predator management be possible? The EIR should also address how predator management will be funded in the long-term.
- Hasn't predator management been in place in SF2? SF2 still experiences one of the highest rates of depredation in the Ravenswood Complex. How will the efficacy of predator management be significantly improved?

In addition to the concern that higher nesting densities lead to higher rates of depredation, there is also the concern that higher nesting densities for SNPL and other resident waterbirds, will result in increased occurrences of interspecies aggression.

28 cont.

[18] Robinson-Nilsen, Caitlin, Jill Bluso Demers and Cheryl Strong. 2010. *Western Snowy Plover Numbers, Nesting Success, Fledgling Success and Avian Predator Surveys in the San Francisco Bay, 2010.* San Francisco Bay Bird Observatory.

In 2016[19] interspecies aggression between SNPL and American Avocets was observed on several occasions usually between SNPL and American Avocet adults:

> "On several occasions, biologists observed aggression between American Avocet adults and Snowy Plover adults and chicks. Similar behavior was also observed between American Avocets and an incubating Snowy Plover adult in Ravenswood pond R4.

The 2017 SFBBO Annual Report[20] observes

> "In 2017, a wet winter resulted in relatively little available breeding habitat to start the season, and we observed increased interspecies aggression. Snowy Plovers may need to have quality habitat spread throughout the bay to minimize these effects." [emphasis added]

And

> "…we found Snowy Plovers nesting in very close proximity to numerous species, including American Avocets, Black-necked Stilts, and Caspian Terns. As a result of this close nesting, we observed fifteen separate aggressive physical interactions between Snowy Plovers and other species (Table 12)."

The SFBBO Report also raised the concern that interspecies aggression could result in increased depredation:

> "Within this same area [pond R4], we also observed numerous American Avocet and Black-necked Stilt nests. On April 27, a Snowy Plover pair was chased by an adult avocet with a nearby brood. Later that same morning, we observed two separate instances of Snowy Plover females charging a Black necked Stilt. In one instance, an incubating female plover charged a nearby stilt, while in the other instance, a paired female charged a nearby stilt. In all three cases, the elevated level of activity could have attracted the attention of predators, and with the adult birds distracted resulted in depredation of adults, nests, or chicks of all three species." [emphasis added]

28 cont.

Contingency Measures Must Be Proposed That Will Address Declines In SNPL Recruitment

The challenges of maintaining successful SNPL nesting within the Ravenswood Complex, amplifies the need for development of viable, enforceable, sustainable contingency measures such as acquisition of suitable habitat, restoration of suitable habitat, or enhancement of existing and suitable habitat. The 2023 SFBBO[21] Annual Report warns

> "Our research over the past nine years at E14 highlights that "placing all the eggs in one basket" is not an effective long-term strategy for meeting recovery goals. Adaptive management strategies on SBSPRP land to balance tidal restoration with Snowy Plover

[19] Pearl et al. 2016
[20] Pearl et al. 2017
[21] Schwarz et al. 2024

needs, despite the increased cost of managing ponds and future concerns about sea level rise adaptation, could serve as a positive example for other landowners.

Thus we recommend that Refuge biologists and USFWS Snowy Plover Recovery Leads continue to promote enhancement, management, and maintenance of Snowy Plover habitat on SBSPRP land, and encourage the Bay Delta Fish and Wildlife Office and landowners to increase efforts to identify suitable habitat in the rest of RU3 that can be enhanced or managed for breeding Snowy Plovers and maintain existing Snowy Plover habitat when feasible as outlined in the Recovery Plan (USFWS 2007)."

- How does SAFER propose to address this substantive concern?

Concerns Regarding the Proposed Timing of Work in Ponds R1, R2, R3, and SF2
According to the timeline provided on Table 2-4 SAFER Bay Project Implementation Schedule, construction will be occurring in all four ponds in 2029, with the R1 and R2 earthwork starting slightly in advance of the levee construction work in SF2. The levee construction is planned to be completed in early 2030, while the work in pond R1 and R2 is not planned to be completed (not including the levee breach) in early 2031. Meanwhile, the SNPL nesting habitat enhancements are not scheduled to take place and end until early 2031. This means SNPL breeding habitat will be disturbed and disrupted by construction activity in three out of four of the remaining breeding habitat ponds, and only pond R3, which is subject to impacts from human disturbance and predation, will remain undisturbed.

We urge that the project implementation schedule be re-evaluated, with input from SFBBO if that has not already occurred. It would make more sense for the habitat enhancements in R3 be implemented first, followed by the work in SF2, and then R1 and R3. We understand that there is a desire to quickly implement the alterations in ponds R1 and R2 so that the ponds can be breached, however, the current implementation schedule could result in significantly reduced SNPL nesting success in the Ravenswood Complex.

- The DEIR states that, with habitat enhancement, Pond R3, "…*should be able to support much higher nesting densities…*" of Snowy Plovers (page 3.4-21). Nesting enhancements for WSP on R3 must be implemented, and <u>higher nesting densities must be documented</u>, prior to the proposed levee breaches of Ponds R1 and R2.

Similar to the concerns we have expressed, the 2017 SFBBO Annual Report[22] recommended the following:

> "As Phase II of the Project will enhance pond R3 for plover nesting habitat while breaching other pond R4 in the same complex, <u>we advocate for nesting habitat enhancement to occur prior to breaching. This will help to ensure that there is high quality nesting habitat available to Snowy Plovers when overall habitat availability decreases.</u> Prior to construction, we recommend further enhancement of RSF2 for Snowy Plover breeding, potentially including spreading of oyster shells, removal of remaining predator perches as possible, and installation of chick shelters or other materials to provide cover at foraging sites. During construction, we urge managers to

28 cont.

[22] Pearl et al. 2017

provide nesting habitat in areas adjacent to those ponds being drained for construction (for example, R1 and R2)." [emphasis added]

SNPL Comment Conclusion

Contrary to the DEIR determination that the programmatic and project level impacts to Western Snowy Plover will be reduced to a level that is less than significant with implementation of the proposed mitigation measures, the SAFER project at the programmatic and project levels of review could have significant adverse impacts to the long-term nesting success of SNPL within the Ravenswood Complex.

28 cont.

Mitigation Measure BIO-18: Breeding Season Colony Buffers for Colonial Nesting Birds

The mitigation measure proposes that "no construction or operation and maintenance activities occur within 100 feet of an active American Avocet or Black-necked Stilt nest…"

PG & E's "Nesting Birds: Species-Specific Buffers for PG & E Activities, dated November 2015[23] utilizes a Standard Buffer of 150 feet for these species. Due to the potential reduction in available area for nesting within the Ravenswood Complex, based upon the previously identified Implementation Schedule, we urge that the buffer for the American Avocet and Black-necked Stilt be increased to 150 feet.

29

Burrowing Owl Mitigation Measures BIO-21 to BIO-23

In October 2024 the California Fish and Game Commission approved naming the Burrowing Owl a candidate for potential listing species, as a candidate species the owl is afforded the same protections as species protected under CESA. The final decision of the Commission regarding the status of the owl was postponed until April 2026.

Section 2081 subdivision (b) of the Fish and Game Code allows CDFW to authorize take of species listed as endangered, threatened, or candidate species, if that take is incidental to otherwise lawful activities and if certain conditions are met. These authorizations are commonly referred to as incidental take permits. ITPs allow a permittee to take a CESA-listed species if such taking is incidental to, and not the purpose of, carrying out an otherwise lawful activity. Permittees must implement species-specific minimization and avoidance measures and are required to fully mitigate the impacts of the project (Fish and Game Code Section 2081[b]; Cal. Code Regs., Title 14, Sections 783.2–783.8).

Some of the proposed mitigation actions might be considered "take" pursuant to CESA and individual take permits (ITP) might be required. Certainly consultation will be required if the species is listed.

30

Tidal Marsh Restoration in Ponds R1 and R2 and Construction of Two Colonial Sea Bird Islands in Pond R1

31

[23] PG & E. 2015. *Nesting Birds: Species-Specific Buffers for PG & E Activities.* PG & E. https://ia.cpuc.ca.gov/environment/info/panoramaenv/fulton-fitch/Application/Appendix_E_Birds.pdf

We appreciate the proposed creation of interior areas of higher elevation marsh refugial habitat along the slough channels of R1, especially since portions of the existing perimeter levees support recreational trails.

The Project proposes to create two colonial waterbird nesting islands to replace those that will be removed in SF2. These islands are located in the immediate vicinity of the primary breach into R1. 31 cont.

- It is difficult to tell from Figure 8. Seabird Nesting Island Cross Section how wide the proposed 4:1 slope is, to determine if it is sufficient to allow any chicks or not yet fledged juveniles to get back up onto the top of the island should they slide or are inadvertently pushed off. Please provide a narrative response to this issue.
- The islands will be located in an area of potentially erosive flows. To address the issue of erosion, AppBIO1 states, "…the islands constructed in Pond R1 will be lined with 3-inch diameter rocks at 5.8 feet, which represents 2 feet above MSL under current conditions." This should be depicted on the cross section, as well as the elevation of the slough channel bottom. 32
- Has the Mosley Tract been surveyed for the presence of the salt marsh harvest mouse?
- If they are present in the Mosley Tract, we suggest that consideration be given to closing the two spur trails proposed on the R1 levees, during king tides to provide refugial habitat for the SMHM and roosting habitat for waterbirds. 33
- Among the list of physical environment conditions that will be monitored, the areal extent and condition of tidal wetlands that are adjacent to the R1 levee breaches should be monitored to identify any indirect impacts of the Project. 34

Mitigation Measure BIO-26: Habitat Restoration Monitoring Plan. The DEIR states this MM applies to the proposed habitat restoration activities in Ponds R1, R2, R3, and SF2. The elements to be monitored target the question of whether the physical environment is achieving success criteria, e.g. "Success criteria and associated metrics that reflect adequate conditions for use by target species."

- Who will be monitoring whether or not the "targeted species" are actually using the habitat that is being created? For example, the two islands are being created to replace nesting islands that are currently being used in SF2 by Caspian Terns, Black Skimmers, and other waterbirds (American Avocets, Black-necked Stilts, etc.). 35
- Who is determining target numbers for species, and assessing whether the trajectory of habitat occupation is approaching the target numbers?
- What happens if they are not?
- Similar to the impacts of interspecies aggression resulting from higher nesting densities for SNPL, how would interspecies aggression be mitigated?
- Have contingency measures been identified?
- Is there a predator management plan for colonial waterbirds?
- When will this information be available to the public for review and comment

Tech Campus Reach

We have serious concerns about significant temporary and permanent Project impacts to the ecological and hydrological integrity of Ravenswood Slough. In the Tech Campus Reach, the narrow Ravenswood Slough tidal marsh is bordered on one side by an existing low levee behind the Meta campus and a low berm along the State Route 84 stretch. On the other side, the marsh is bordered by the Refuge's levee that surrounds Pond R3. The Project is proposing a new FEMA levee/Bay Trail around the Meta campus and along State Route 84. The large levee base will encroach on the Ravenswood Slough tidal marsh plain, covering marsh vegetation well below the high tide line, fill a portion of the slough channel, further constrict the narrow area between the two levees, and increase tidal amplification in the area as sea level rises.

According to the NOP scoping comment letter submitted by the California State Lands Commission, portions of the Project area include State-owned sovereign land under the jurisdiction of this agency, and specifically, *"The Commission has a lease in this vicinity with the U.S. Department of the Interior, Fish and Wildlife Service including Ravenswood Slough. On August 20, 1981, the Commission authorized a General Lease – Public Agency Use, Lease No. PRC 6045.9, for the operation, management, protection, and maintenance of State sovereign land to be used in conjunction with the San Francisco Bay National Wildlife Refuge, which encompasses refuge areas in Alameda, San Mateo, and Santa Clara counties."* (DEIR Public Scoping Comments Attachment C) (Emphasis added)

Ravenswood Slough is an historic tidal marsh that is clearly valued by both state and federal resource agencies, primarily for the habitat it provides for several federal and state endangered species, the Ridgway's Rail and the salt marsh harvest mouse. The presence of these species in the area is well-documented in the DEIR.

36

Meta Campus

1. According to Figure 2-20, the Project would install a large levee for "habitat enhancement" by creating a transition zone on the levee's 3:1 bayward slope; however, the levee would significantly impact the narrow tidal marsh for the creation of high tide refugia that currently is available for wildlife close by on the Pond R3 levee. The Refuge will be maintaining the levee surrounding Pond R3 as sea level rises in order to protect endangered Western Snowy Plover habitat within that pond; therefore, the Refuge's levee on the other side of Ravenswood Slough will continue to provide high tide refugia for marsh wildlife, like SMHM, going forward. The 3:1 transition zone habitat is not critical for wildlife in this reach and unnecessarily destroys tidal marsh.

During the Project planning process, other less intrusive flood protection infrastructure was considered for this specific reach. The DEIR has failed to avoid or minimize significant impacts to jurisdictional wetlands and waters and endangered species habitat. This programmatic EIR (and future project-level EIR) must consider (or reconsider) flood protection infrastructure alternatives to the 3:1 bayside levee slope in this reach, such as 2:1 slopes on both sides of the levee, or flood walls.

Around the tech campus, infrastructure should be pulled back from the slough to the greatest possible, and measures such as moving the Bay Trail landward, or decreasing the width of the new trail to 10 feet (current trail width is approximately 7-8 feet) should also be examined. Combining flood protection infrastructure changes and modifications to the Bay Trail could greatly reduce the extent of encroachment onto the tidal marsh plain.

2. The DEIR does not address CCCR's NOP comment regarding the Option 1 floodwall design presented in the October 2016 SAFER Bay Project *Public Draft Feasibility Report*. The Option 1 floodwall design appears to greatly reduce the footprint into Ravenswood Slough on the east and north sides of the tech campus.

It seems that the smaller Option 1 footprint compared to the approximately 75-foot footprint of the Modified Footprint Alternative (based on the DEIR Figure 3.4-2n) would: 1) reduce the amount of fill in the bay, 2) preclude use of the tech campus property and thus not require the SFCJPA to reasonably acquire, control, or have access to the site, 3) place the toe of the levee above the marsh plain, not in it, and 4) decrease the convergence of shorelines which increases tidal amplitude towards the landward end of enclosed estuaries[24].

Please provide an explanation as to why the Option 1 floodwall from the October 2016 SAFER Bay Project *Public Draft Feasibility Report* is not environmentally less impactful than the Modified Footprint alternative for this reach.

36 cont.

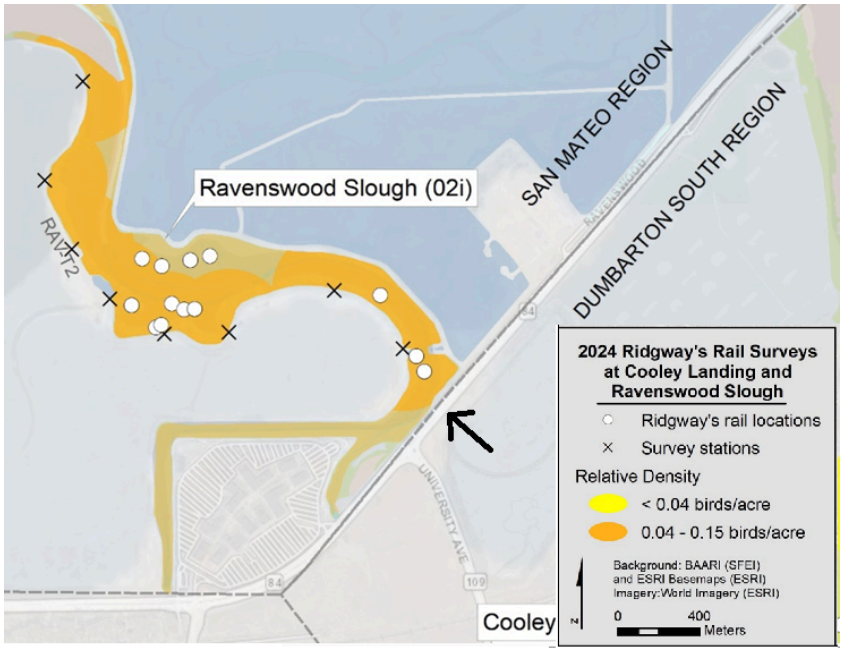
<u>Along State Route 84</u>

Figure 3.4-2j in the DEIR shows the program-level impacts for the section of this reach that is adjacent to State Route 84. The Project proposes to construct the most massive type of levee infrastructure in this specific part of the reach, in spite of the site's significant constrictions from being wedged between the narrowest area of tidal marsh and the highway. The P-1 levee specified in Figure 2-11 has 3:1 slopes on both sides with a 20-foot-wide Bay Trail atop the levee.

The encroachment impacts from infrastructure and construction to the Ravenswood Slough tidal marsh are severe and include filling approximately 400 feet of the main slough and excavating a replacement tidal channel. The *2024 California Ridgway's Rail Surveys for the San Francisco Estuary Invasive Spartina Project*[25] reported relatively high California Ridgway's rail populations throughout Ravenswood Slough, <u>including in this section of the reach</u> as shown below.

37

[24] Holleman, R. C., and M. T. Stacey (2014), Coupling of sea level rise, tidal amplification, and inundation, J. Phys. Oceanogr., 44(5), 1439–1455, doi:10.1175/JPO-D-13-0214.1.
[25] San Francisco Estuary Invasive Spartina Project 2024 Ridgway's Rail Report



Modified excerpt from the 2024 Ridgway's Rail Monitoring Report Figure 9, *ISP survey results at Ravenswood Slough in the San Mateo Region and at Cooley Landing in the Dumbarton South Region*. Area of concern indicated by arrow.

37 cont.

In light of the significant harm to jurisdictional wetlands and waters and endangered species habitat, the EIR has clearly failed to seriously consider measures to avoid and/or reduce adverse impacts.

As noted above for the other section of this reach, other flood protection infrastructure should be considered. Because of the site constraints, a flood wall would appear to be most appropriate for this 1,000-foot section, especially since wildlife using this very narrow section of marsh have access to the Refuge's Pond R3 and Pond R2 levee slopes for high tide refugia.

After evaluating measures outlined above to reduce the significant impacts to tidal marsh habitat, if any portion of the Ravenswood Slough channel will be filled and/or rerouted, the project-level EIR must include a full hydrological study of the temporary and permanent impacts to the Ravenswood Slough area landward of the channel fill and excavation. The project must ensure tidal flow to all portions of the marsh are unimpeded and adequate to sustain existing marsh vegetation.

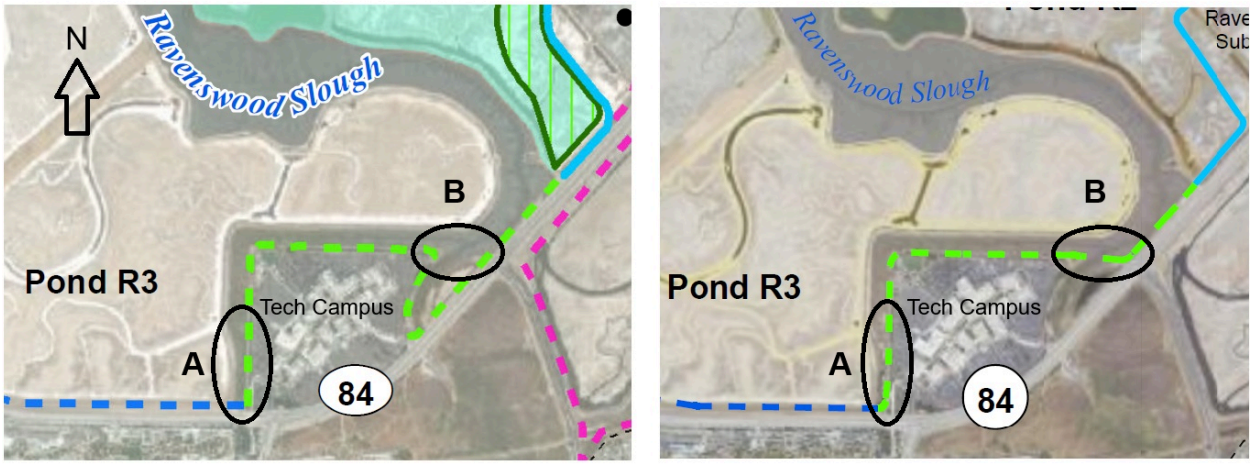
Tidal Amplification

38

The EIR must identify and analyze the impacts of tidal amplification from the proposed 3:1 levee slope (or other flood protection infrastructure placed in the tidal marsh) on the Refuge's Pond R3 levee along Ravenswood Slough.

The DEIR does not address CCCR's NOP comment regarding the effects of tidal amplification on the levee protecting pond R3 and the Western Snowy Plover nesting habitat from the Project creating converging shorelines in Ravenswood Slough. Our concerns are now greater as the

degree of shoreline convergence in the DEIR appears to be even larger than what was shown in the NOP, and Ravenswood Slough is even more constricted with the addition of a levee within the slough at the northeast corner of the Tech Campus (see below).



Increased shoreline convergence in Areas A and B in Ravenswood Slough from the NOP (left) to the DEIR (right). Modified images of the NOP Figure 1, Project Location and Components, and DEIR Figure S-1, Project Location and Components.

38 cont.

The SAFER Project proposal to "*Enhance western snowy plover habitat in Pond R3*." (Pg. S-4) as a habitat improvement will do little good if Pond R3 is flooded due to overtopping of the levee from Ravenswood Slough. The Project cannot create unmitigated adverse impacts on the pond R3 levee.

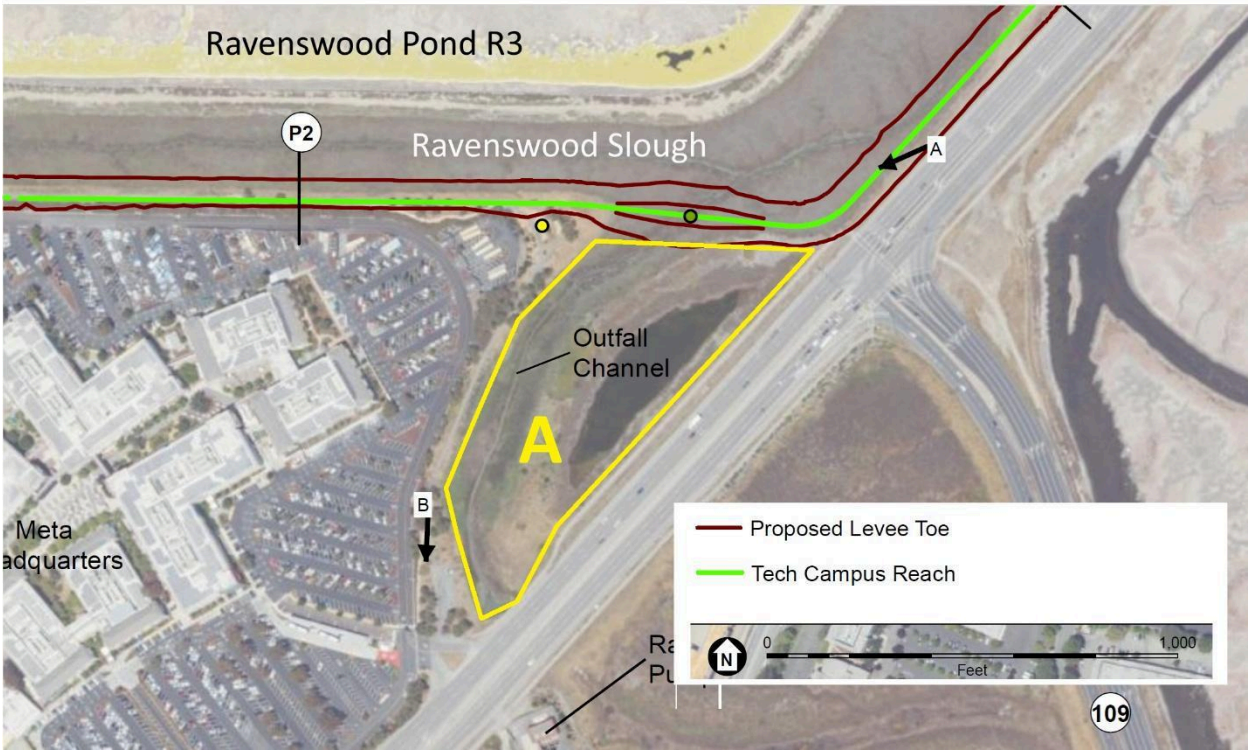
Impacts from tidal amplification could also adversely affect habitats for the salt marsh harvest mouse and California Ridgeway's Rail by creating higher tides in the slough well in advance of, and in addition to, sea level rise. The east, north and west sections of Ravenswood Slough are considered suitable habitat for both species in the California Department of Fish and Wildlife's California Wildlife Habitat Relationship system's Predicted Habitat Models[26].

"East of Meta" Area

The Tech Campus Reach includes a section of Ravenswood Slough in an area the DEIR refers to as "east of Meta". Measuring the area on Google Earth, it appears to be approximately 6.5 acres. The Project is proposing to dike off a branch of Ravenswood Slough from waters of the San Francisco Bay (Area "A" below).

39

[26] California Wildlife Habitat Relationships



Modified excerpt of Figure 2-20, Tech Campus Reach Plan. "A" = DEIR "east of Meta" area.

39 cont.

Sensitive habitats in the area include Northern Coastal Salt Marsh, a California Department of Fish and Wildlife Sensitive Vegetation Alliance, and Tidal Brackish Marsh, a California Department of Fish and Wildlife Sensitive Habitat. (DEIR Pg. 3.4-5)

The California Department of Fish and Wildlife considers much of this area as highly suitable habitat predicted for salt marsh harvest mouse and California Ridgeway's rail for reproduction, cover, and feeding as shown below:

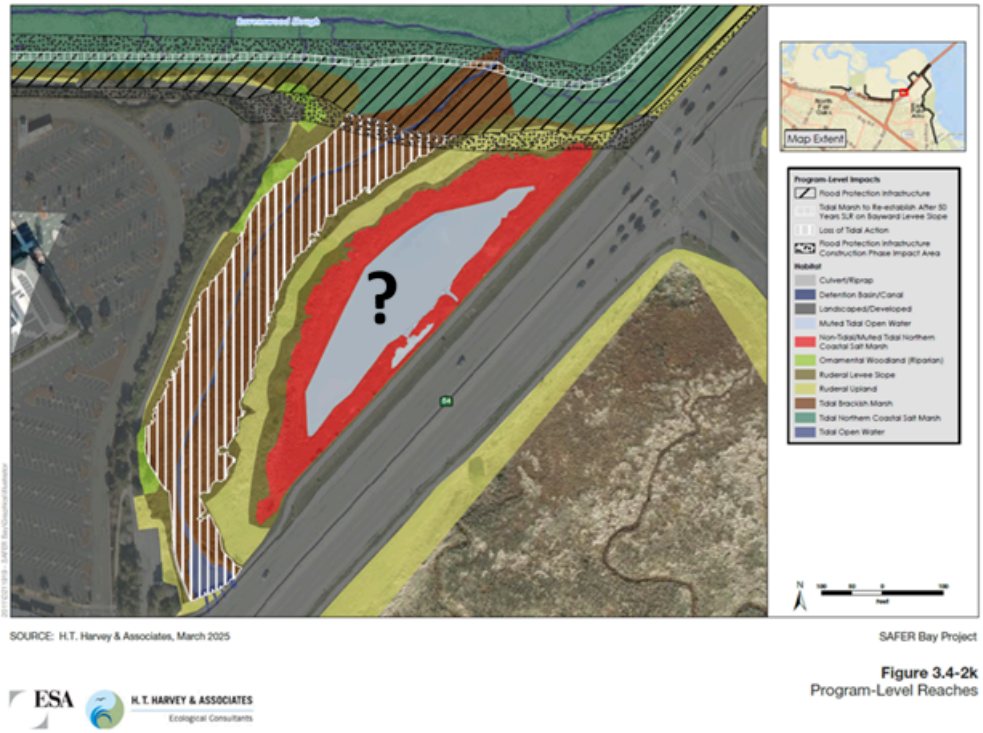
Modified excerpt from the Salt-Marsh Harvest Mouse Predicted Habitat[27] with location labels added. "A" = DEIR "east of Meta"

39 cont.

Modified excerpt from the California Ridgeway's Rail Predicted Habitat[28] with location labels added. "A" = DEIR "east of Meta"

[27] Salt-Marsh Harvest Mouse Predicted Habitat - CWHR M114 [ds2568] - Dataset - California Open Data
[28] California Ridgeway's Rail Predicted Habitat - CWHR B144B [ds3236] | CDFW Open Data Portal

Additionally, in Figure 3.4-2k, *Program Level Reaches* it is not evident why the Tidal Brackish Marsh area will lose tidal action, but not the Muted Tidal Open Water and Northern Coastal Salt Marsh areas as shown below.



Modified Figure 3.4-2k with areas in question indicated by question mark.

39 cont.

Please clarify why the entire area of Ravenswood Slough that would be diked off would not lose tidal action.

It appears that there is no discussion or analysis specific to the environmental impacts from diking off this section of Ravenswood Slough, only that the culvert will have to be extended (page 2-47).

TABLE 4-3, *Comparison of Environmental Impacts of Project to Modified Footprint Alternative*, describes impacts as, "*Similar to the Project*", "*Less than the Project*", or "*More than the Project*" for the "east of Meta" area in the discussions of Cultural Resources, Tribal Cultural Resources, Geology, Soils and Paleontology, Hazards and Hazardous Materials", Hydrology and Water Quality, Noise and Vibration, and Recreation, but no has specific mention regarding impacts to Biological Resources.

The EIR must identify and analyze impacts to biological resources from diking off the "east of Meta" area of the project from tidal flow. Biological impacts to jurisdictional wetlands and waters and endangered species habitat could be avoided or greatly reduced by installing a pedestrian

bridge on piers, instead of a levee, across Ravenswood Slough at this location as presented in Figure 4-1, *Modified Footprint Alternative*.

With the potential to reduce significant impacts to biological resources, the EIR must explain why the "pedestrian bridge on piers" option was not considered acceptable.

39 cont.

Bayfront Expressway

The June 15, 2022 CCCR NOP scoping comment letter states, *"The SBSPRP Phase 2 plans currently being implemented call for Pond R3 to remain a managed pond for endangered western snowy plover breeding habitat; therefore,* ***levees for this reach should be designed to have a smaller footprint*** *in order to have the least amount of fill placed inside Refuge Ponds R3 and R5."* (Emphasis added)

The DEIR states that construction of the FEMA levee for this reach will result in the loss of 24.6 acres of WSP habitat in portions of Pond R3. The DEIR further states that WSP nesting activity in the area of the pond near State Route 84 has likely been impacted by "*…high levels of human disturbance owing to its location along the Bay Trail…"* (p.3.4-41).

The description of the Project for this reach includes the following on Page 2-51:
"Recreation*. The levee would be constructed on the bayward side of the Bay Trail and would be topped by a trail. (There would be no change to the existing Bay Trail, which parallels SR 84 and is between SR 84 and the proposed levee alignment.)"*

The Project proposes a new 20-foot-wide Bay Trail atop a new FEMA levee that is placed further into Pond R3. The distance between State Route 84 and the proposed new levee is 130 feet (Table 3.2-4), putting the pedestrian trail closer to nesting Snowy Plovers. The distance between the existing Bay Trail and SR 84 is approximately 25 -30 feet (measured on Google Earth). This significant change would increase the disturbance impacts to WSP and the encroachment on Refuge lands. Why is this necessary?

Figure 2-22 Bayfront Expressway Reach Plan indicates that a P-1 levee design will be constructed for the entire reach. This levee has a 3:1 slope going into the Refuge's Pond R3 in order to provide "transition zone habitat" **in a managed pond that the Refuge is not restoring to tidal marsh**. Additionally, unlike in several other reaches, the new FEMA levee/trail is not sited over the existing Bay trail, which adds to the encroachment into the pond.

The EIR must provide an explanation of why impacts are necessary and unavoidable, identify how unavoidable impacts have been minimized and address the impacts of fill and encroachment on Refuge lands and endangered species habitat, and the significant indirect impacts from creating even higher "levels of human disturbance" from a closer trail by incorporating changes to the levee design and location. Since Pond R3 is proposed to be retained as a "managed pond" that is not exposed to tidal action, a levee with a 2:1 grade on both sides, that is sited over the existing trail with a new Bay Trail on top would narrow the levee footprint, and increase the distance between the levee and disturbance impacts from trail users on sensitive WSP nesting habitat in Pond R3.

40

Additionally, there is also no need to have a 3:1 levee slope into the remaining section of Pond R3 where the levee/trail turns towards Bedwell Bayfront Park through Refuge lands; however, as planned in the Project, the 3:1 levee slope with the transition zone habitat (P-1) would be beneficial in the last segment of the levee adjacent to Pond R4 which currently receives tidal flows for marsh restoration. 40 cont.

Bedwell Bayfront Park Reach

We have no comments regarding impacts to Biological Resources or mitigation measures for this specific reach since there is not much else that can be done regarding the impacts of the road, flood control structures and all the utilities in this small area. Impacts on wetlands are minimal compared to the other reaches. The most effective intervention for sea level rise in Flood Slough is to open up and restore the adjacent salt ponds. 41

Marsh Road Reach

The project-level EIR for this reach should include information on SAFER Project/Menlo Park coordination with Redwood City on the proposed levee plan, as required by the RSAP.

The Cargill salt ponds are within the city limits of Redwood City, and as documented in the DEIR, the pond in the SAFER Project area is designated as Open Space-Preservation in the Redwood City General Plan (Table 3.12-1). These ponds are included in the Congressionally-approved Don Edwards San Francisco Bay National Wildlife Refuge expansion boundary. Should a willing seller come forward, there are significant opportunities for tidal marsh restoration. For this reason, future project-level planning for this reach should ensure that any final design or siting of flood protection infrastructure would not preclude or interfere with the possible restoration of the historic slough channels and marsh plain of the salt pond. 42

South of Bay Road Reach

As described in the DEIR, the Project plans the South of Bay Road Reach to be the first actual construction of shoreline protection. Actions prior to it will initiate natural infrastructure and habitat enhancement, protect a highway and a substation. This reach protects families' homes, a stormwater pump station, a school, undeveloped and contaminated lands and a substation. As the initial reach it can establish and set standards for all the shoreline protection that follows.

Uniquely this reach has the protecting gift of established, natural infrastructure: the Faber-Laumeister marshes. Other places,within the Project and beyond, are launching efforts to reestablish tidal marshes for their services, mitigating storm surges, providing carbon capture, filtering Bay water and providing habitat for wildlife that depend on it. Instead the South of Bay Road Reach has the purpose of *protecting* marsh to sustain all of its natural services. The USFWS 2025 Survey of Ridgway's rails found their population in Faber-Laumeister marshes stable. Still endangered, neither the rails nor the endangered salt marsh harvest mouse can afford to lose any healthy, tidal marsh habitat. South of the Dumbarton Bridge along the western shoreline of the Bay, Faber Marsh has the highest occurrences of the salt marsh harvest mouse. 43

The DEIR does not adequately address where refugial habitat exists for the mouse during the highest tides while the Project is under construction. 43 cont.

On page 2-4 of the DEIR the discussion lists factors that were considered when choosing levee alignments, including “Limiting impacts on salt marsh habitat.” and “Spatial requirements and design guidelines and regulations for engineered shoreline protection features.” This reach of the Project has the opportunity and responsibility to fulfill both of those factors and achieve the greatest marsh protection feasible. Doing so, it will set a standard for shoreline build-out in the reaches to follow.

We have concerns about the levee described in the DEIR for this reach. We hope for design and spatial changes that will limit impacts whenever feasible. We say this with our earlier general comments about Biological Resources in mind as well as our overarching special concerns regarding the DEIR.

Levee width and Trail width For discussion we consider the proposed engineered 3:1 slopes of levee (wherever slopes can be used). A slope contributes substantially to levee width toe-to-toe and its width may not be compromised. Another dimension, the width of the flat surface sitting between the slopes’ upper edges, has flexibility. The DEIR sets the width for all levee trails at 20’ wide. We are dismayed. *Please see our comments in Chapter 3.15, Recreation where we discuss trail width in detail.* The concern here is: the wider the trail, the wider the levee, the greater the intrusion into wetlands, the more outboard construction-band wetland destruction occurs as does a corresponding loss of tidal wetland services. The Figures 3.4-(3b to 3g) lay out a startling and extensive intrusion into healthy marsh adjoining the entire length of this Reach. We ask that the Project act to avoid or at least minimize marsh intrusion by reducing the trail to the narrowest width feasible and ensuring that the toe of the slope touches the higher high water mark or marsh edge. Wherever there are locations where the levee itself can also move inland, the Project should take that opportunity to step back. Every foot away from wetland habitat counts. This Reach should set the Project standard for protecting wetland while protecting the shoreline for all subsequent Reaches. 44

Channel Relocation We understand that channel relocations were designed as a solution to levee intrusion into existing channels that adjoin and parallel the existing levee/Bay Trail. Moving the toe of the levee back as discussed above might relieve some of that intrusion. Figures 3.4-(3d,3e,3f) show proposed relocations. We have several concerns.

The DEIR does not present any hydrologic modeling as guidance for the optimal alignments of the relocation channels in each location. Would modelling show that existing plans are optimal or identify alternative alignments? Are there plans to do such modelling before proceeding? Would the channels bisect existing, small slough networks of the marsh, disrupting local water supply and isolate currently healthy habitat areas? Please consider these questions, review alternatives chosen and change channel plans as appropriate.. 45

We are also concerned about dredging in the marshes for these channels. As USACE and water quality requirements address, dredging can destroy wetlands and expose contaminated soils. It is extremely disruptive to wildlife that may be present. Will dredging these channels meet the Federal Least Environmentally Damaging Practicable Alternative standard? Have sufficient studies been done to justify the Project's proposed alternative? Again, please consider these questions. 46

Faber-Laumeister Trail Connections: The Project's planning process has identified locations along the inboard side of the South of Bay Road levee that will be access points to the levee trail. Please also list levee access for the Faber-Laumeister Trail as a Project action. 47

Stormwater Outfalls: To protect water quality of the Bay and in the marshes, please require that stormwater outfalls be designed to filter trash and minimize trash pollution in the Bay. 48

There are many variations that flood protection can be structured. Here, we suggest that recommendations for the South of Bay Road Reach set standards that extend to subsequent shoreline protection reaches in the Project. Using siting and ecological characteristics cited by Dr. Baye, the actual structures built will need to vary but each Reach can be required to meet the goal of avoiding or at least minimizing loss of wetland habitats. 49

<u>North of Bay Road Reach</u>

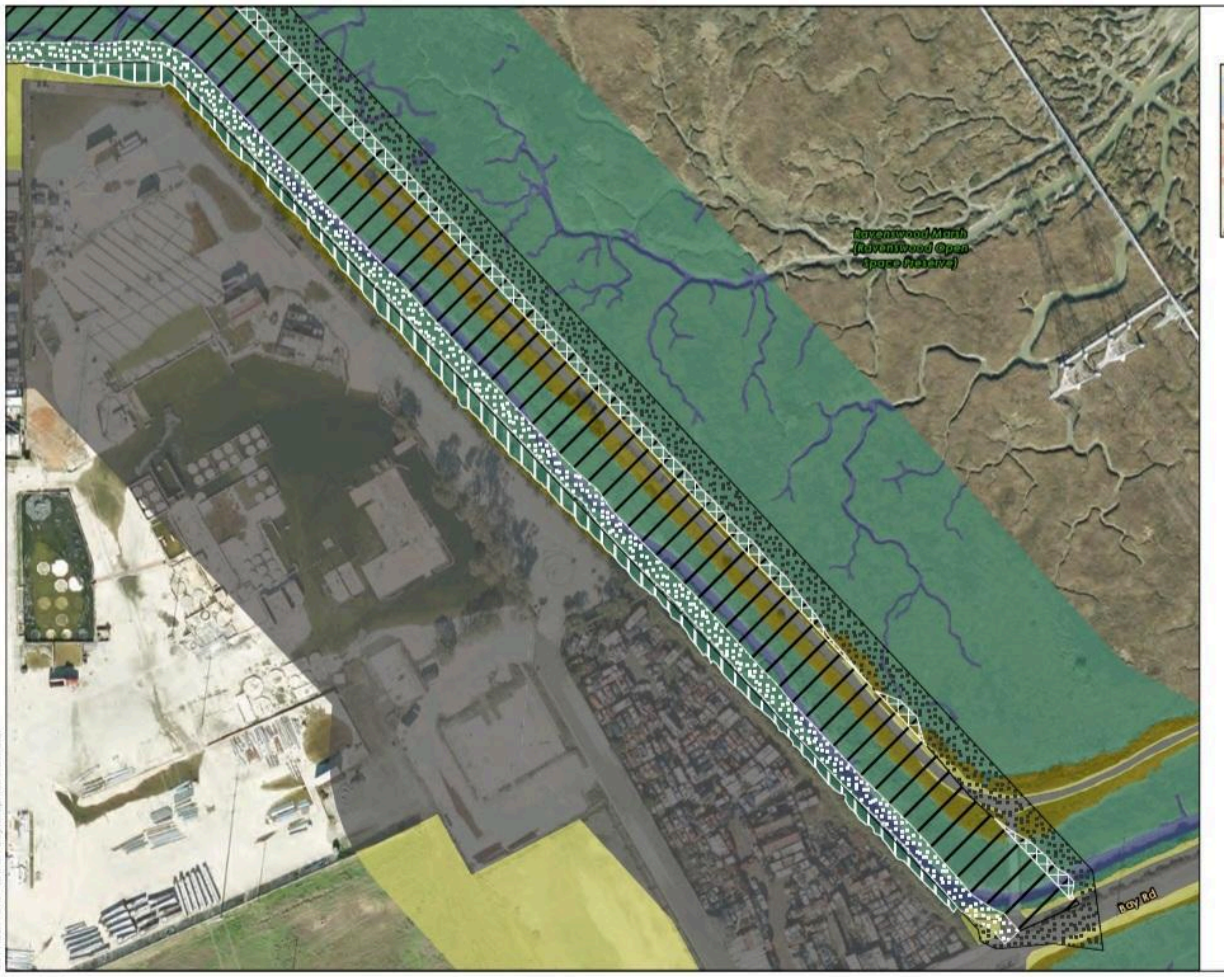
The Project labels the North of Bay Road Reach as "program" but sets it as the next shoreline protection reach after the completion of the South of Bay Road Reach. DEIR discussion of the Reach is sparse when minimally, existing conditions should have been described for what is a part of the Project that has unique, existing complications that may impede construction.

The proposed levee alignment of this Reach adjoins the Bay Road flood gate at its south end then heads generally north/northwest. The Reach actions include and terminate with a floodgate on the unused, former Southern Pacific railroad. 50

The majority of the levee alignment follows a shoreline that, like the South of Bay Road Reach, is bordered by substantial tidal wetlands until it nears the railroad tracks at its north end. For that reason and especially regarding the need to minimize levee width and move levees as far inland as is feasible avoiding or minimizing wetland impacts, avoidance of dredging impacts and trash pollution. Please review our comments above and in the Chapter 3.11 re water quality.

Shoreline Hydrology. As discussed in our comments on Hydrology and Water Quality, we are very concerned to have seen no evidence of hydrology studies of shoreline-adjoining wetlands and see such studies are critical to evaluating any actions involving changing channel flow. Such studies need to occur during the program phase, prior to any decisions on channel changes. The North of Bay Road Reach is a dramatic example. 51

Figure 3.4-2b is a graphic representation of the Shoreline levee apparently cutting off the tidal flow of East Slough into marshes inboard of the ROSP. In Figure 3.4-2c, it shows a smallish channel cut through the ROSP trail, connecting to a minor slough within the ROSP. Is this proposed channel expected to mitigate the dramatic flow-capacity loss of East Slough?



SOURCE: H.T. Harvey & Associates, March 2025

The East Slough is the **major** channel spreading a tidal prism into marshes inland from the ROSP. To avoid undermining the health and survival of those marshes using the alignment proposed (or other alignment), it is absolutely critical that a broad hydrology study be performed between Cooley Landing and the railroad and extending to the most innermost shoreline. To help guide alternatives developed we strongly recommend that the Project involve the San Francisco Estuary Institute to advise the hydrology studies and develop a vision plan showing viable alternatives. Those studies should include assessment of proposed dredging sites for contaminants that may have entered the East Slough from adjoining properties that have known contaminant or strongly suspected contaminant risks.

51 cont.

The breadth of East Slough at ROSP Bridge during a King Tide, 12/05/2025

Capacity of East Slough seen from Bay Road looking north during the 12/05/2025 King Tide

51 cont.

Through the 2024 RBDSP, East Palo Alto rezoned marshes within the 391 Demeter property and that lie inboard of the ROSP. It is now zoned as open space and in an ideal location to improve shoreline protection through healthier marshes, fulfilling an RSAP guideline. Scientifically guided actions can improve shoreline protections of the Project.

52

It is good news that recent Ridgway's rail surveys of the USFWS and the Invasive Spartina Project continue to find these rails in the ROSP and the neighboring Faber-Laumeister Unit. Even so, relative counts of the rail population are stable, not increasing generally and remain endangered. Enhanced marsh in the North of Bay Road Reach can expand their habitat. 52 cont.

CHAPTER 3.7: ENERGY

The DEIR concludes that the Project would not result in significant energy impacts. We generally agree with this conclusion, but believe it would be strengthened through alignment with our recommendations in the Noise section of this letter.

The DEIR explains that it does not require electrification of construction equipment due to uncertainty regarding availability and access. While this rationale may be reasonable based on current conditions, the Project's extended, phased construction timeline warrants reconsideration of this conclusion in the Final EIR. As discussed in the Noise section, we recommend that the Final EIR include a mitigation measure requiring use of electric or zero-emission construction equipment where commercially available and feasible at the time of construction, particularly near sensitive receptors. Doing so would demonstrate alignment with statewide energy and climate policy goals without overstating enforceability or feasibility constraints. 53

CHAPTER 3.9 GREEN HOUSE GASES

IMPACT GHG-1: Project Greenhouse Gas Emissions

The DEIR concludes that construction-related greenhouse gas (GHG) emissions would be less than significant. While the DEIR provides useful quantitative information, the Final EIR should make several clarifications to support that conclusion. 54

1. The narrative description of construction-phase GHG emissions is internally inconsistent with Table 3.9-3, which reports emissions for project components in years extending beyond 2031 and does not clearly align with the stated minimum and maximum annual values (DEIR, p. 3.9-19). The Final EIR should reconcile the construction timeframe and peak annual emissions so they are clearly and consistently disclosed.
2. Because construction emissions constitute the predominant source of project-related GHG emissions, the Final EIR should more clearly explain how applying a qualitative, policy-consistency framework (developed primarily for projects with substantial operational emissions) supports a less-than-significant conclusion for annual construction emissions on the order of approximately 5,000–6,000 $MTCO_2e$. 55
3. The DEIR should clarify whether long-term "blue carbon" benefits are presented solely as a qualitative co-benefit or are being relied upon to support the significance determination; if the latter, the EIR should address permanence and risk consistent with CEQA principles. 56

The DEIR states that mandatory use of electric construction equipment was not required due to uncertainty regarding availability and access. While this conclusion may be reasonable for purposes of GHG significance, construction equipment electrification should be addressed more directly in the Noise analysis as a feasible, performance-based mitigation where commercially available and feasible at the time of construction. Such measures would also provide co-benefits for GHG emissions. 57

Impact C-GHG-1: Cumulative Greenhouse Gas Emissions

The cumulative GHG analysis should briefly explain why the Project's construction-related emissions would not be cumulatively considerable in the context of other reasonably foreseeable sea level rise infrastructure projects occurring within overlapping construction timeframes, consistent with CEQA's requirement to explain the basis for concluding that a project's incremental contribution to a cumulative impact is not cumulatively considerable. 58

CHAPTER 3.10 HAZARDS, HAZARDOUS MATERIALS AND WILDFIRE

The SAFER project will be constructed along a shoreline with a long history of environmental contamination from historical and current industrial activities. Excavation along the shoreline has the potential to release contaminants into Bay wetlands and waters and to expose construction workers, nearby residents and workers, and wildlife to hazardous chemicals. Comprehensive health and safety and soil and groundwater management plans should be prepared and followed to minimize these impacts. The DEIR proposes to defer preparation of these plans to a future date, even for reaches evaluated at a project level of detail in the DEIR. Since the details of those plans are not available, the findings of LTS or LSM for impacts related to hazardous chemicals cannot be viewed with confidence, as the plans are critical to assessing the adequacy of mitigation measures. 59

Findings of LTS or LSM for the following impacts discussed in Chapter 3.10 are not adequately supported or documented by the DEIR and require additional measures to ensure the safety of workers, the public, and the environment. 60

- *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.*
- *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.*
- IMPACT HAZ-2: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one quarter mile of an existing or proposed school.

Additionally, IMPACT AIR-3: Expose sensitive receptors to substantial pollutant concentrations— is related to IMPACTs HAZ-1, C-HAZ-1 and HAZ-2 — as it concerns exposures to the public from airborne contaminants generated by the project.

Impacts HAZ-1 and C-HAZ-1

The DEIR findings of LSM for IMPACTs HAZ-1 and C-HAZ-1 are based on mitigations to be detailed in three plans:

- MM HYD-1b: Groundwater Management Plan
- MM HAZ-1: Health and Safety Plan
- MM HAZ-2: Soil Management Plan

We request that the supplemental information and additional measures described below be included in the EIR and in these plans to support the LTS and LSM findings.

60 cont.

MM-HAZ-1: Health and Safety Plan

Where SAFER will be constructed in areas with approved construction risk management plans (i.e., sites in the South of Bay Road and North of Bay Road reaches), the DEIR proposes to use the approved soil cleanup levels and protocols for those sites (page 3.10-19). However, the approved plans may not include adequate mitigation measures for a SAFER Health and Safety Plan, as discussed below for the individual reaches. The EIR should provide additional details to support that the approved plans 1) cover the scope and magnitude of all activities planned for SAFER construction, 2) are based on a comprehensive human health and environmental risk assessment, and 3) use the most recent toxicity factors or cleanup criteria from state and federal sources. If any shortcomings are present in the existing plans, a reach-specific Health and Safety Plan should be required for these areas.

61

A particular contaminant of concern within several of the SAFER reaches is arsenic, as it is a major contributor to human health (cancer) risk. The arsenic soil cleanup level recommended by the Water Board for human health protection at sites with residential use is 11 milligrams per kilogram dry soil (mg/kg), based on the regional soil background from a 2011 study that analyzed soils throughout the Bay Area[29]. Because SAFER levee slopes will not be paved, the residential value should be used, to provide greater protection to the public.

62

The DEIR requires that, on all reaches and all sites outside of adopted plan areas, a qualified professional must prepare a Health and Safety Plan (page 3.10-19). For areas "without approved plans and within or adjacent to known contamination sites," the DEIR proposes to identify soil and groundwater contamination by visual signs and odors and by using existing data to the extent practicable (page 3.10-20). This approach is not sufficient to ensure that

63

[29] Duvergé, D. J. 2011. *Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region.*

impacts on construction workers, nearby residents, and wildlife will be less than significant. Most toxic chemicals have adverse health and environmental effects at concentrations below that at which odors or staining will occur, and many are not detectable at all by odor or visual inspection. Existing data may not include analyses of all chemicals of concern or may have used obsolete test methods. Sites may have been closed based on old criteria that are not considered protective at present. The EIR should require onsite soil and groundwater monitoring (i.e., field test kits, sensitive and specific chemical sensors) to be used during excavation in all reaches with past industrial use, requiring follow-up sampling and laboratory analysis when concentrations exceed screening levels. 63 cont.

MM HAZ-2: Soil Management Plan

The DEIR (page 3.11-33) references a screening procedure to assess whether imported fill is sufficiently clean for use in levees, the *Master Quality Assurance Project Plan for Don Edwards San Francisco Bay National Wildlife Refuge (Master QAPP) (U.S. Fish and Wildlife Service and H.T. Harvey & Associates, Revised October 6, 2021)*. This reference should be updated to Version 3, revised December 10, 2024.[30]

The Master QAPP was developed by the USFWS, the Bay Conservation and Development Commission (BCDC), and the Water Board to screen soils for placement in areas that provide habitat for wildlife or are adjacent to wildlife habitat. However, unlike most levee projects within the Refuge, SAFER reaches are adjacent to residential areas, workplaces, schools, or parcels where future housing or schools could be built. For that reason, imported soils that will be used on levees should also be screened using the Water Board's most recent Tier 1 Environmental Screening Levels (ESLs) for soil.[31] The program and project soil screening levels for levee soil should be the lower of the screening levels in Table 5 of the Master QAPP and the Tier 1 ESLs. Both sets of screening levels should be included as a table in the EIR. It must be emphasized, however, that Water Board ESLs are not cleanup levels – they are concentrations that, if exceeded, may require further investigation and remediation. 64

Impact HAZ-2: Release hazardous materials within one quarter mile of a school

One school is located within a quarter mile of the SAFER project. The Ravenswood School District's Aspire Charter School, in the South of Bay Road Reach, is within 200 feet of the levee location. High levels of arsenic and other toxic contaminants are present in soils and groundwater that will be excavated during nearby levee construction. No mitigations of slough sediments or marsh soils were required in this reach. Unless a human health risk assessment is performed that indicates cumulative health risk to children are within acceptable limits, and specific mitigations are identified that are tailored to the SAFER construction activities and risks, IMPACT HAZ-2 cannot be designated LTS. 65

[30] *Master Quality Assurance Project Plan for Don Edwards San Francisco Bay National Wildlife Refuge (Master QAPP).* U.S. Fish and Wildlife Service and H.T. Harvey & Associates, Revised December 10, 2024.

[31] *2025 Environmental Screening Level Summary Tables Revision 3. Tier 1 ESL Table*. https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/ESL/

Impact AIR-3: Expose sensitive receptors to substantial pollutant concentrations

The DEIR found AIR-3 to be LTS. This conclusion was based on results of a human health risk assessment (HRA) that modeled the cancer and noncancer risks to sensitive receptors of particulate matter and other criteria air pollutants emitted during construction (page 3.3-19 and Appendix AIR). However, the HRA did not evaluate risks of exposure to noncriteria toxic air contaminants (e.g., arsenic, PAHs, VOCs) in vapor or dust released from soil or groundwater during excavation, soil handling, dewatering, and other construction activities. This omission is of concern for residents of neighborhoods adjacent to the SAFER project, particularly in reaches with extensive contamination of soil and groundwater.[32] 66

To justify the conclusion of LTS for AIR-3, the EIR should require the program and projects to evaluate, via source characterization, air transport modeling, and human health risk assessment, the cancer and noncancer risk to sensitive receptors from airborne transport of toxic chemicals such as metals, pesticides, and volatile and semivolatile organic compounds (VOCs and SVOCs) generated from construction activities within the project boundaries.

Mitigation Measures For Individual Reaches

For reaches adjacent to hazardous waste sites, the following additional information or measures should be added to or required by the EIR.

South of Bay Road Reach: IMPACTS HAZ-1, HAZ-2, AIR-3, and BIO-1

This reach borders the 1990 Bay Road sites, multiple parcels with extensive contamination of soil and groundwater with arsenic and selenium, metals and pesticides, as described in DEIR Table 3.10-1 and page 3.10-22. Contaminants remain in shallow and deep soils above health-protective limits.[33] An asphalt cap currently limits exposures to contaminated soils, but SAFER excavation and construction will disrupt the cap and generate dust. A sensitive population (elementary school children) and residences on Runnymede Street are located within 200 feet of the SAFER levee location. 67

On a portion of the 1990 Bay Road site proposed by Harvest Properties for a mixed-use development ("The Landing"), the DEIR (page 3.10-19) states that following applicable regulations and the protocols in the RWQCB-approved Construction Risk Management Plan (CRMP) for that project[34] will reduce potential HAZ-1 impacts to LSM. The Harvest Properties CRMP cannot be used as a substitute for SAFER project-specific protocols, for several reasons.

[32]https://www.sfpublicpress.org/bay-area-group-new-tool-reveals-worst-toxic-sites-refocusing-environmental-activism/

[33] RWQCB, 2016. Staff Summary Report (Mark Johnson), Meeting Date: July 13, 2016. *Starlink Logistics, Inc. (Formerly Rhone-Poulenc, Inc.), for 1990 Bay Road Site, East Palo Alto, San Mateo County - Adoption of Final Site Cleanup Requirements.*

[34] S.S. Papadopulos & Associates, INC. *Construction Risk Management Plan, Addendum to the Comprehensive Site Management Plan*, *1990 Bay Road Site, East Palo Alto, California. December 19, 2020.*

- The CRMP (page 1) states that it is for the intended use of "The Landing" project contractors and does not apply to "management of risks within other areas in the Site or other projects not otherwise explicitly identified in this RMP."

- The DEIR (page 3.10-31) states "*Implementation of the management measures are understood to protect human health, including onsite construction workers, nearby residents and workers, and the environment from potential impacts*." This statement is not supported by a close reading of the CRMP. Although the CRMP objectives include protecting the public and the environment, the only actual requirements are for contractors to conduct a human health risk assessment and prepare a site-specific Environmental Health and Safety Plan to protect construction workers (CRMP, page 21). There is no requirement to assess risks to other receptors.

67 cont.

To support a finding of LTS for HAZ-2 and LSM for HAZ-1, C-HAZ-1, and AIR-3, the final EIR should include a requirement to conduct a reach-specific, multi-pathway, human health risk assessment that considers potential exposures of construction workers and sensitive receptors to arsenic and other contaminants in dust generated by the SAFER construction. The results of that assessment should be incorporated into the reach-specific Health and Safety and Soil Management Plans.

The 20 mg/kg of arsenic that the CRMP allows to be left in place beneath an impermeable cap should not be applied to levee soils in the SAFER project. That value was approved in 1992 by the RWQCB based on a soil background value in use at the time, and only for soils beneath a durable cap that prevents exposure. Levee slopes will be vegetated but not paved, which will not stop rainwater or seawater from mobilizing contaminants into the residential areas or wetlands. Instead, the SAFER plans should use the currently recommended 11 mg/kg as a maximum concentration for levee soils.

68

East of 1175 Weeks Street, the levee footprint overlies part of a cement-bentonite subsurface barrier wall, intended to keep arsenic and other contaminants from entering the Bay (see Figure 6 of the CRMP). If excavation and construction of the levee will or could destroy any part of this barrier, the EIR should describe how the barrier and associated monitoring wells will be replaced and how the integrity of the barrier system will be evaluated after levee construction.

69

The Final Cleanup Order for the Rhone-Poulenc (Starlink Logistics) Wetlands Operable Unit (OU) states that a 1.3 acre area of the Laumeister Tract exceeded target cleanup levels for protection of salt marsh harvest mouse and Ridgway's (Clapper) Rail from arsenic in the slough and shallow marsh soils.[35] A 2000 ecological risk assessment found higher levels of arsenic (up to 54 mg/kg dry weight) in sediments at depths of 4.5 to 5 feet at one location; however, the authors concluded (and the RWQCB concurred) that this deeper contamination was not associated with the 1990 Bay Road sites.[36] [37]

Figure 21 of DEIR Appendix BIO-3 shows where the western channel of the Laumeister Tract will be impacted by levee construction, and where SAFER plans to excavate a replacement channel in the marsh. Both the SAFER levee and the replacement channel pass through several areas where slough sediments and shallow marsh soils were determined to contain arsenic (and zinc) in excess of target levels for ecological risk.[38]

The Final Cleanup Order did not require remediation of this OU; therefore, to justify the findings of LSM for IMPACT HYD-1b and BIO-1, the EIR should require any sediments or soils excavated from this reach to be tested for arsenic and other contaminants associated with 1990 Bay Road sites and the results used to determine the disposition of the materials. Additionally, where excavations for replacement channels expose deeper sediments or soils, a robust program of sampling and analysis should be implemented to ensure that the new channel floor and banks do not contain arsenic and other contaminants at levels posing an ecological risk to slough or marsh biota. 70

North of Bay Road Reach: IMPACTS HAZ-1, C-HAZ-1, AIR-3, HYD-1, and BIO-1

This reach borders the Romic Environmental Technologies/Bay Road Holdings sites, as described in DEIR Table 3.10-1 and page 3.10-22. The Romic hazardous waste processing site, adjacent to the planned levee location, stored solvents in unlined ponds on the property. The primary constituents of concern (COCs) are chlorinated and aromatic volatile organic compounds (CVOCs and AVOCs). The principal CVOC is trichloroethene (TCE). Residual dense non-aqueous phase liquid (DNAPL) has migrated downward from the ground surface into the underlying aquifer to depths of 80 feet. Light non-aqueous phase liquid (LNAPL) is present in the northern part of the site.[39] 71

[35] Johnson, RWQCB Staff Summary Report (n 5) 7
[36] Geomatrix Consultants, Inc. S*ediment Sampling Results, Tidal Wetland, 1990 Bay Road Site East Palo Alto, California.* June 9, 2000. Letter to Mark Johnson, RWQCB.
[37] CA RWQCB. *Sediment Sampling – Wetland Operable Unit, 1990 Bay Road Site, East Palo Alto.* November 7,2000. Letter to Robert Ferguson, Rhone-Poulenc.
[38] Basland, Bouk and Lee, Inc. *Memorandum: Final Risks to Endangered Species, 1990 Bay Road Site. East Palo Alto, California*. June 4, 2004.
in: https://geotracker.waterboards.ca.gov/esi/uploads/geo_report/3390884637/T10000010290.PDF.
[39] USEPA, 2023. *Bay Road Holdings, RCRA Site Climate Vulnerability Assessment Technical Memorandum.*

The DEIR (page 3.10-19) states that following the protocols in Sycamore Real Estate's *Area-Wide Risk Management Plan for the Ravenswood Industrial Area*[40] will reduce potential HAZ-1 impacts to LSM. That plan, which was approved by the RWQCB and incorporated into the Land Use Covenant for the Sycamore properties[41], is intended to apply to future development activities. It does include procedures to be followed in the event of soil excavation, trenching, and dewatering, but not at the level of detail needed for the SAFER project. It defers to the contractors in future projects the requirement to conduct human health risk assessment and prepare a Health and Safety Plan if soils or groundwater exceed screening levels, critical requirements for meeting the mitigation requirements of HAZ-1, C-HAZ-1, and AIR-3. Although the Sycamore plan may be cited as procedures approved by regulators for other purposes, it cannot replace a reach-specific health risk assessment, Health and Safety Plan, and Soil Management Plan in satisfying the requirements of MM HAZ-1 and MM HAZ-2. 71 cont.

Adjacent to 2081 Bay Road, the levee will border an area of ROMIC/Bay Road Holdings that contains a groundwater recirculation system, a biobarrier, injection wells, and LNAPL recovery from a well at the northeastern area of the site, where the highest concentrations are present (DEIR page 3.10-33). These systems are used to promote natural attenuation of CVOCs and to prevent contaminated groundwater from entering the Bay. The DEIR states "dewatering could temporarily counteract the effectiveness of the injection wells located along the northeastern boundary of the site" but does not address longer-term impacts on site remediation if the systems are shut down for lengthy periods, damaged or destroyed. A USEPA Climate Vulnerability Assessment concluded that cessation of injection and resulting seawater intrusion may lead to changes in groundwater geochemistry, reducing natural attenuation and extending the duration of the remedy.[42] To justify the findings of LSM for HYD-1b and BIO-1, the EIR should provide more detail on the extent and duration of impacts on existing remediation systems, and how any increase in migration of contaminants to the Bay will be monitored and mitigated. 72

Infinity Auto Salvage: The DEIR (page 4-38) rejected an alignment of SAFER west of this property based on "potential soil and groundwater contamination concerns". However, the new alignment may also encounter contamination. In July 2024, a fire at the junkyard destroyed cars and auto parts, generating a large smoke plume that traveled eastward over the marsh (see image below). Auto junkyard fires generate heavy metals and products of incomplete combustion such as cyanide, polycyclic aromatic hydrocarbons (PAHs) and polychlorinated dibenzo-dioxins and -furans (PCDD/PCDFs). No follow-up sampling was performed. The sampling and analysis plans for this reach should require testing surface soils for these chemicals. 73

[40] Ninyo and Moore, 2021. *Area-Wide Risk Management Plan, Identified Properties Within the Ravenswood Industrial Area. East Palo Alto, California*. c/o Sycamore Real Estate Investments LLC.
[41] Johnson, M. 2022. *Covenant and Environmental Restriction on Property, Sycamore Properties within the Ravenswood Industrial Area. RWQCB, May 12,2022.*
[42] See USEPA, 2023 above.

July 14, 2024 fire at Infinity Auto Salvage

73 cont.

CHAPTER 3.11 HYDROLOGY AND WATER QUALITY

Water is central to this project, both as an approaching hazard from the rising Bay levels and increasingly extreme storms, and as a critical environmental resource at risk from pollution, toxic contaminants, and hydrologic disruption.

Regarding water quality, we ask that you read our comments on Chapter 3.10 (Hazards and Hazardous Materials) carefully. Significant content there has direct application to impact analysis in this section.

74

The Project proposes to construct approximately seven miles of levees, flood walls and nature-based infrastructure, along with associated trails and channel modifications. These actions have the potential both to reduce flood risk and to exacerbate hydrologic, water quality, and wetland impacts if not carefully designed and analyzed. The Project also proposes to build out in phases, near-term phases labelled “project” while future-term phases are labelled “program.”

General Comments

Hydrological modelling

In multiple locations, the Project proposes to dredge channels in open waters, fully tidal marshes,l and former salt ponds, to reconnect, replace and create new connecting channels. In all cases, these actions would alter the hydraulic characteristics within tidal prisms. However, the DEIR neither includes nor proposes hydrologic modeling to assess how altered channel geometry and alignments would affect tidal flows, circulation patterns, sediment transport, or adjacent wetlands. 75

We strongly recommend hydrological modelling to evaluate whether redirected flows could produce unanticipated impacts and to inform whether alternate alignments or channel design characteristics would better protect wetland function and water quality. This analysis is particularly important for the proposed replacement channels in Faber and Laumeister marshes, where tidal connectivity and internal flow patterns are critical to marsh health.

We also have great concern about the Project's channel proposals North of Bay Road. In this reach, the levee is proposed to cross East Slough, the primary conduit supplying wetlands landward of the Ravenswood Open Space Preserve (ROSP) trail. North of Bay Road is identified as a future/program phase for which the DEIR provides little detail, yet the DEIR proposes a relatively small replacement channel through the ROSP trail as mitigation. Absent hydrologic modeling, it is not possible to determine whether this proposed channel would adequately maintain tidal exchange or avoid adverse impacts to inland wetlands. 76

In the 2024 Ravenswood Business District and 4 Corners Specific Plan (RBDSP),[43] the City of East Palo Alto rezoned the privately-owned wetlands at 391 Demeter to Parks and Open Space, reserving them for restoration and touting that "over 16 acres of restored wetlands and natural open space would be protected and put under long-term management."[44] A stable and sufficient supply of tidal waters is essential to the success of that restoration. We strongly recommend that any actions planned for the North of Bay Road reach include robust hydrology studies, developed with guidance from an SFEI-prepared vision study for tidal resilience addressing all wetlands in this reach from the shoreline to the Open Bay. 77

Technical Corrections Needed in Chapter 3.11

- Faber-Laumeister Unit Management: As noted earlier in this letter, several statements in Chapter 3.11 incorrectly describe land ownership and management authority. These errors could lead to inappropriate assumptions or actions. Please correct the statements 78

[43] East Palo Alto, 2024, Ravenswood Business District & 4 Corners Specific Plan 12/17/2024 (final, adopted): https://www.cityofepa.org/sites/default/files/fileattachments/planning/page/9021/ravenswood_business_district_4_corners_specific_plan_final.pdf

[44] Ibid., 80.

identified on page 3.11-3 (2 statement errors) and pages 3.11-33 and 3.11-34, and review the chapter for any additional misstatements.

78 cont.

- **Flood Slough Setting** The description of Flood Slough on page 3.11-5 is substantially inaccurate. We recommend revising the text to read as follows:

  "*Flood Slough, a tidal water body, is the receiving channel for Bayfront Canal and extends bayward between Bedwell Bayfront Park and the Cargill-owned salt ponds before connecting with Westpoint Slough. It forms a boundary between Menlo Park and Redwood City.*"

79

- **Regulatory Setting** Discussions of local regulations relevant to East Palo Alto are limited to Vista and General Plan references. Notably absent is any substantive discussion of the 2024 RBDSP, which includes extensive shoreline policies and mitigation requirements applicable from approximately Weeks Street in the South of Bay Road reach through the entirety of the North of Bay Road reach. The RBDSP Mitigation & Monitoring Plan, compiled from the approved FEIR, includes shoreline-specific mitigation requirements, many of which pertain directly to biological resources and water quality, that need to be applied to Project actions. A footnote on page 3.11-27 states that the RBDSP is discussed in the Land Use section; however, that one paragraph discussion does not identify or apply RBDSP shoreline policies or mitigation measures. Please revise Chapter 3.11 to integrate applicable RBDSP shoreline policies and mitigation guidance to ensure Project actions comply with adopted City expectations.

80

Water Quality

Omitted Analysis of Trash Pollution

In 2015, the State of California adopted standards to regulate trash pollution. The Water Quality Control Plan, Chapter III - Water Quality Objectives provides that:: "Trash shall not be present in inland surface waters, enclosed bays, estuaries, and along shorelines or adjacent areas in amounts that adversely affect beneficial uses or cause nuisance."

The DEIR did not analyze trash pollution. It proposes that most of its approximately seven miles of shoreline protection will support elevated public trails, which will attract thousands of people bringing all sorts of materials with them that may be transported into adjoining wetlands by wind, stormwater or human carelessness and end up as trash pollution. Animal feces, primarily dog, will add bacterial pollution. While the Water Board recognizes that trash pollution can never be eliminated, it is expected that substantial effort be made to minimize its environmental impact.

81

The DEIR explained that stormwater from levee-top trails would drain toward the Bay as an uncontrolled pollutant source. We strongly recommend that the DEIR add impact analysis of trash pollution and include mitigation that would change levee trail design to direct stormwater drainage landward where pollutants could be captured in adjoining drainage channels with downstream filters to remove larger trash items before they enter the Bay.

Impact HYD-1: Water Quality Degradation

"Violates any water quality standards or waste discharge requirements or otherwise substantially degrades surface or groundwater quality."

1990 Bay Road Outfall in East Slough When describing the ROSP on p.3.11-3, the DEIR states: "A storm drain system within the 1990 Bay Road property discharges to an outfall located in a tidal channel (East Slough)." As discussed in the Hazards and Hazardous Materials Chapter, this property is known to have contaminants present, a fact prompting our concern that contaminants may have been transported to East Slough. The DEIR does not discuss the alignment of the drainage system on the 1990 Bay Road property, yet it could have significant implications for water quality conditions in the slough, fish, and adjacent marsh habitats. Please report what is known about this outfall connection and, if unknown, what actions will be taken to assess it. 82

Construction Analysis A major weakness of the DEIR is the failure to provide detailed information about construction methods, equipment, impacts beyond the levee footprint, control of contaminants (air particles, vehicle fluids, invasive plants) and placement and control of soil piles and more. That omission makes it impossible for a reader to reasonably assess construction-phase impacts or evaluate the adequacy of proposed mitigation. Beginning with the Project Description, and continuing throughout the DEIR, we recommend providing detailed construction information accompanied by appropriate impact analysis. 83

In-Water Dredging The DEIR discussion of in-water dredging excludes several locations where the Project proposes they will occur. Replacement channels described in Faber, Laumeister marshes and the proposed cut-through in the ROSP trail would all involve dredging in wetlands within fully tidal prisms. Most significantly, the DEIR omits analysis of the in-water dredging needed to construct a levee through the fully tidal East Slough, the principal tidal tributary serving the marshes north of Bay Road. 84

All of these replacement channels, if built, would require significant mitigation to minimize damage to marsh integrity and to fish, marsh birds and mammals. The DEIR must describe dredging methods in detail for all of these locations and make the information available for public review. Given the scope and import of these omissions, revised analysis should be recirculated.

Salinity and Metals, Pond R3, R5 and S5 (p.3.11-39) The DEIR states that Project activities would not affect salinity in managed ponds because operations would not be altered. However, the DEIR elsewhere acknowledges that changes in channel depth and width can affect water quality. For Pond R3, page 3.11-38 notes that proposed borrow ditches would be wider and deeper, potentially increasing wind fetch and mixing. Please revise the discussion to reconcile these statements and clarify whether and how altered channel geometry could affect salinity and metals in Pond R3. 85

Methylmercury (p. 3.11-40)
As described in the DEIR, the occurrence of methylmercury in wetland habitats is not only an indicator of mercury contamination but in a form that leads to transfer to the food chain and serious consequences for wildlife.

The DEIR discusses exposure for lands adjoining the project, focusing on Refuge land. We are concerned that no assessment was made regarding the wetlands of the ROSP nor marshes landward of the Preserve. Exposure of that wetland habitat would also pose a significant threat to wildlife. Please extend the methylmercury analysis to include the Preserve and adjacent marshes. 86

Mitigation Measure HYD-1a: Master QAPP for Imported Terrestrial Fill

We are aware that the USFWS takes great care to protect the soil quality of Refuge habitats and the health of wildlife that use it. The Master QAPP was revised in 2024, but the DEIR references an earlier version. Please request it from the Refuge and update the DEIR as needed to reflect the current QAPP and revise Footnote 78 accordingly.

Unknown Sites of Contaminants On p. 3.11-12, the DEIR acknowledges that "[d]redging of bay material can uncover and remobilize sediment-bound contaminants…" Given the local history of buried contaminants and fill along the shoreline, it is reasonable to expect that previously undetected contaminants could be encountered during dredging or levee construction. During the Alviso levee project, for example, while dredging to remove the existing levee, the USACE exposed a large, dense area contaminated with hydrogen sulfide. Apparently the HS_2 was generated as buried marsh decayed, sealed within the old levee. These soils had to be removed and degassed.[45] We recommend that the Project establish a BMP as mitigation requiring protocols for responding to unanticipated contaminant events. 87

Runnymede Pump Stations, Stormwater Systems

We are aware and the DEIR explains that an effective inboard drainage system is required to meet National Flood Insurance Program requirements. That issue is relevant as it recognizes that the shoreline flood infrastructure introduces new risks of stormwater flooding inboard. New or improved inboard stormwater drainage is required to mitigate the risk. For this Project we believe those actions pertain to the existing O'Connor/Runnymede drainage canal that will be improved as part of the Project. 88

That brings us to the Runnymede Pump Station. This Pump Station is an element in the City 2014 Stormwater Master Plan. The Utility Plan of the RBDSP assumed it would be built. Presumably it and all the new stormwater conveyance is a City responsibility.

[45] Personal email, 1/18/26, to E.McLaughlin from D. Halsing, Executive Manager, South Bay Salt Pond Restoration Project.

How then did the design of a Runnymeded Pump Station become part of this Project and be presented as mitigation in MM HYD-2a? More than that, proposed as design only, not build. What can it actually mitigate?

We recommend that the DEIR clarify and add substantive detail regarding the separation of Project and Municipal stormwater actions. Please identify responsible parties. Unless somehow clarified as Project responsibility and converted to provide actual mitigation, we also recommend removal of the existing MM HYD-2a. HYD-2a does not propose construction of such a system and therefore does not function as mitigation under CEQA. 88 cont.

CHAPTER 3.12 LAND USE, AGRICULTURE AND FORESTRY

The Land Use section appropriately summarizes high-level policy frameworks for surrounding jurisdictions.This information is helpful as a basis for conclusions that the Project will not be in conflict with those major policies. However, it does not identify action-level mitigation requirements contained within those same policy documents that should guide Project design and implementation.

The 2024 Ravenswood Business District/4 Corners Specific Plan is such a document.[46] The DEIR discusses the RBDSP several times in brief under Land Use, concluding the Project does not conflict. However, it does not analyze or apply the RBDSP's shoreline-specific mitigation measures, many of which are directly relevant to Project actions. There is no DEIR guidance given to look into documents like this one, especially as it is of recent vintage, for mitigations that may apply, and which the Project must use to satisfy the City. These measures are contained in the RBDSP Mitigation and Monitoring Plan, compiled from the RBDSP FEIR, and apply continuously from just north of Runnymede Street in the South of Bay Road Reach through the North of Bay Road reachuntil, approximately, the railroad tracks that formerly provided a Bay crossing. To ensure consistency with City expectations and avoid future conflicts, the DEIR should incorporate applicable RBDSP mitigation requirements (as well as similar local constraints in other jurisdictions) into its analysis and mitigation. 89

CHAPTER 3.13 NOISE AND VIBRATION

The DEIR concludes that construction noise impacts would be significant and unavoidable despite implementation of standard mitigation measures. We agree that construction noise presents a substantial concern given the Project's scale, duration, and proximity to sensitive receptors. However, the DEIR does not adequately consider the use of electric or zero-emission construction equipment as a feasible noise-reduction measure. 90

[46] Ravenswood Business District/4 Corners Specific Plan, Final Adopted 12/17/2024: https://www.cityofepa.org/sites/default/files/fileattachments/planning/page/9021/ravenswood_business_district_4_corners_specific_plan_final.pdf

The DEIR acknowledges that electric construction equipment can reduce noise but dismisses its use based on uncertainty regarding current availability and access. Given the Project's extended, phased construction timeline, this conclusion should be reconsidered. Availability of electric construction equipment is expected to increase over time, and CEQA allows mitigation measures to be framed in conditional, feasibility-based terms.

The Final EIR should include a mitigation measure requiring the use of electric or zero-emission construction equipment, where commercially available and feasible at the time of construction, particularly in areas adjacent to sensitive receptors. This measure would directly reduce construction noise and vibration impacts and is consistent with evolving industry practices and state policy direction.

Incorporating this requirement would also provide co-benefits by reducing construction-related air pollutant and GHG emissions, and would strengthen the basis for the DEIR's conclusions regarding construction-period impacts.

90 cont.

CHAPTER 3.15 RECREATION

The SAFER Bay DEIR proposes adding, improving, relocating, and decommissioning several miles of trails across the eight different reaches. These trails would be wider and placed on or adjacent to new levees and other flood protection features installed across the shoreline. We generally support well-planned public access where it can be achieved without compromising flood protection, water quality, and biological resource objectives. However, we have several concerns regarding trail usage induced by the Project that could result in greater impacts and pressure on mixed users and the surrounding sensitive ecosystem. Please include standards, as described below, to minimize likely impacts.

91

Trail Standards We have several concerns related to the 20-foot width standard that has been set for the trails placed on top of the levees. The DEIR uses the Bay Trail Design and Toolkit Guide 2.0 as the basis for all recreational trails in the Project. The 20-foot trail width in the document correlates to trails with anticipated high volume, highly used recreational trails and dense areas. While the Project is expected to have some impact on recreational usage, it is unlikely to increase it to levels that would warrant using a 20-foot trail span. As it states in the *Population and Housing* section, there is no expected population growth as a result of this project, and the trails would remain to be used more locally. Therefore, it should be feasible and consistent with the Project's goals to reduce the width of the trails to the lowest distance possible that still meets safety, maintenance, and access needs.

As mentioned in the Biological Resources section of this comment letter, this project should minimize the amount of wetland habitat it converts into shoreline protection infrastructure. If the project were to set the trail width on top of the levees to the lowest feasible amount, it could help avoid any unnecessary destruction of shoreline habitat. By narrowing the trail on top, the size of the levee base could be reduced, disturbing less wetland. Understanding current trail usage

92

could help determine and set an appropriate width that is able to accommodate habitat, levee function, and maintenance.

In addition to the Bay Trail standard, there are several other complementary documents that could be useful tools for the recreational components of the project. Looking at resources such as ConnectMenlo and the Ravenswood Business District/4 Corners Specific Plan can offer important foundational policies to consider for the SAFER Bay project in regards to lighting, trash, trail usage, and other relevant topics. 92 cont.

Dog Waste The mitigation measure *BIO-14: General Wildlife Impact Minimization Measures* in the Biological Resources section reads "... all dogs must be on leashes and must remain on established trails, and signage indicating these requirements will be placed in key locations." We appreciate the inclusion of on-leash requirements and ask that immediate dog waste removal be included as well on Bay Trails within the project area. Any dog waste left on the trail and in surrounding areas has the potential to become runoff, making its way into the Bay and adjacent habitat. Pet waste runoff is a significant source of pollution and could contaminate the water in the Bay, with negative side effects on wildlife and aquatic species. 93

Local parks and preserves can face issues with unbagged and left behind dog waste, so incorporating rules and requirements for trail users could help mitigate these effects. By putting into place guidelines the project could decrease the amount of waste left on the trail, and as result reduce the amount of waste entering the Bay.

Trash As more people use the trails more trash is likely to make it into the Bay and surrounding facilities. As noted in the *Hydrology and Water Quality* of this letter, common trash like plastic bottles, bags, and wrappers can be harmful to local wildlife and can enter ponds, marshes and open waters. The project should actively implement campaigns such as the "Leave No Trace" campaign or other similar efforts to address the potential increase in trash associated with increased recreational usage. 94

Lighting There should be minimal need for any light on the levees once construction is completed. Permanent lighting on shoreline trails should be avoided to the maximum extent feasible. Where lighting is shown to be necessary for safety or operational purposes, the DEIR should require, not merely encourage, compliance with Dark Sky-consistent standards (fully shielded fixtures, minimal lumen levels, directional lighting, curfews/timers where feasible) to minimize impact on wildlife. 95

Plantings Where landscaping is proposed, the DEIR should prioritize native species beneficial to wildlife, especially birds, butterflies, and insects, and avoid plantings that increase invasive species risk or require intensive long-term irrigation and maintenance. 96

The DEIR should also evaluate whether trees, light fixtures and other fixtures could become perches for raptors, including bench backs. Perching opportunities increase predation pressure in sensitive habitat areas, negatively affecting birds, fish, and other wildlife. 97

Identifying temporary trail connections for disrupted access Construction is going to disrupt several trail access points and recreational facilities such as the Faber-Laumeister Trail and Cooley Landing Park and Education Center. The DEIR assumes that no detour routing will be established to offset any closed trail segments, and leaves such decisions to the discretion of the governing agency in each Reach. This assumption creates a substantial gap in analysis, ignoring potential impacts associated with rerouted trails, making the “less than significant” determination to IMPACT Rec-1 incomplete.

Temporarily rerouting access points and trails could expose unidentified areas of the shoreline to increased recreational usage in addition to the construction from surrounding project work. This could contribute to the physical deterioration of facilities and increased disturbance in sensitive areas. Identifying potential detours, even at a conceptual level, would allow the DEIR to evaluate impacts such as increased vehicle traffic in new neighborhoods, increased habitat exposure in new sensitive areas, and potential increased use of surrounding facilities. 98

In order to accurately assess this impact and assign a correct level of significance, the DEIR needs to take into consideration the potential worst-case impacts of temporary trail routes that may be established during construction.

CHAPTER 3.17 UTILITIES, SERVICE SYSTEMS, AND PUBLIC SERVICES

While reviewing Chapter 3.17, we found a number of factual errors and omissions that, when corrected, will improve the reference value of its discussion. We provide corrected information and recommend the DEIR be changed to include it.

Page 3.17-2 Sanitary Services re West Bay Sanitary District The DEIR correctly describes the wastewater services that are provided by the WBSD. However, and important for planning purposes for the Project, the WBSD also provides recycled water services, currently at the Sharon Heights Golf Course and has an approved project in progress to build a Recycled Water Facility at its property adjoining Bedwell Bayfront Park. It has Marsh Road Reach easements for access and for buried pipelines (current and approved/planned). It also owns the parcel of land that includes the SVCW facility pump house. WBSD was not mentioned among agencies having jurisdiction in the Marsh Road Reach footprint but should be. 99

Page 3-17-3 re the East Palo Alto Sanitary District Effective 10/1/24 and per a decision of San Mateo County LAFCO, the EPASD became a subsidiary district of the City of East Palo Alto. The East Palo Alto City Council serves as the governing board.

Page 3.17-6: Police Services re Palo Alto Police Department As we have discussed previously in this letter, the Faber-Laumeister Unit is managed and operated by the USFWS/Refuge by Cooperative Agreement with the City of Palo Alto. For emergency police service, the Refuge maintains a relationship with the East Palo Alto Police Department. Similarly it has a relationship with the Menlo Park Fire Protection Services.

Page 3.17-7 re Parks and Recreational Facilities The discussion in this section states: ""The City of Palo Alto owns and operates the Baylands Nature Preserve, which includes the Laumeister and Faber marshes in East Palo Alto." As discussed previously in our letter, the Don Edwards San Francisco Bay National Wildlife Refuge, by Cooperative Agreement with Palo Alto, operates the Faber-Laumeister Unit under its Federal Comprehensive Conservation Plan. (See Joint Letter Exhibit D.)

Page 3.17-8 re Regulatory/Federal The discussion states: "No federal laws or requirements for utilities, service systems, and public services are applicable to the Project." Noting the comment just above Federal law and authority apply to any activity in the Faber-Laumeister Unit inclusive of any use of the land as utility infrastructure. Should the Project need access to the land, it will need to apply to the Refuge for a USFWS Compatibility Use Permit.

99 cont.

Thank you for the opportunity to submit these comments.

Sincerely,

Gail Raabe, Co-Chair
Citizens Committee to Complete the Refuge

Eileen McLaughlin, Member
Citizens Committee to Complete the Refuge

Jennifer Chang Hetterly, Bay Alive Coordinator
Sierra Club Loma Prieta Chapter

Alexandra Mendoza, Environmental Associate
Green Foothills

Chris MacIntosh, Conservation Committee
San Mateo County Bird Alliance

CC:

Chris Barr, U.S. Fish and Wildlife Services

Dave Halsing, South Bay Salt Ponds Restoration Project

Jenn Hyman, P.E.

Dr. Peter Baye

Summer Bundy, OneShoreline

ENCLOSURES

- Joint Letter Exhibit A Hyman Technical Memorandum
- Joint Letter Exhibit B Baye Technical Memorandum
- Joint Letter Exhibit C SFBBO Nest Data for Ravenswood Ponds 2008-2023
- Joint Letter Exhibit D Cooperative Agreement Between Don Edwards San Francisco Bay National Wildlife Refuge and the City of Palo Alto

JOINT LETTER EXHIBIT A

To: Carin High, Citizens Committee to Complete the Refuge (CCCR) From:

Jenn Hyman, PE[47]

cc: Eileen McLaughlin and Gail Raabe, CCCR

Date: January 17, 2026

Re: Engineering-related Comments on the SAFER DEIR

I appreciate the opportunity to provide the CCCR with engineering-related comments on the Draft Environmental Impact Report (DEIR) for the Strategy to Advance Flood protection, Ecosystems and Recreation (SAFER) Project.

Comments on Impacts

1. **Aesthetic Resources Impact AES-1** (Substantially degrade the existing visual character or quality of public view of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality) appropriately states that impacts are *Significant and Unavoidable Despite Mitigation.* The impacts are due to the height of the levee/floodwall blocking the beautiful views of the Bay and marshes from neighborhoods and motorists. The proposed mitigation includes native plantings on the upland side of the levee and surface treatments on the steel and concrete walls; the DEIR appropriately acknowledges that these measures will not fully mitigate the impacts.
    a. A mitigation measure that appears not to have been considered is a phased approach to building the hybrid floodwall levees: construct the earthen levee up to the FEMA height initially and at a later date, raise the levee an additional 3.5 feet (by installing the steel floodwall and concrete cap for example). The BCDC RSAP[48] (p. 37) states that it is appropriate to "develop adaptation strategies in phases" and it "may not be appropriate to build adaptation strategies for the longest-term sea level projections today". This DEIR (p 4-35 for one) recognizes

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[47] Jenn Hyman served as the Senior Engineer at the SF Bay Conservation and Development Commission (BCDC) from 2023 – 2025. While there she developed guidelines for interpreting the 2024 State of California Guidance on Sea Level Rise, helped develop the Regional Shoreline Adaptation Plan (RSAP), and reviewed many proposed coastal flood protection and restoration projects for compliance with SF Bay Plan policies, including the SAFER Project.

[48] Regional Shoreline Adaptation Plan: One Bay Vision, Strategic Regional Priorities, and Subregional Shoreline Adaptation Plan Guidelines

that the steel sheet piles have a limited lifespan due to corrosion. Steel sheet piles in a marine environment can have a typical lifespan on the order of 60-70 years, so the steel installed in 2030 may be corroded by 2100 (when it will finally be utilized due to sea level rise) and could require replacement. If the steel sheet pile wall is not delayed, it may be in poor condition at the time it is finally needed, wasting project dollars. Consider this phased/adaptive approach in the EIR to reduce the aesthetic impacts of such a high levee/wall. 100 cont.

2. **Biological Resources Impact BIO-2** says the project will have a less than significant impact on federally protected wetlands with a mitigation of a Habitat Restoration Monitoring Plan. The discussion of wetland impacts in Section 3.4 describes the permanent impacts to the wetlands from the flood control infrastructure and states that those are offset by the uplift to the former salt pond restorations. Table 3.4-5 presents acreage of impacts to wetlands for project elements. Impacts to wetlands appear significant, particularly considering that feasible alternatives exist with fewer wetland impacts and that former salt marshes are being impounded behind levees. 101
    a. Calculations of impacts from flood infrastructure for the Substation Reach in Table BIO4-5 show 20.63 acres of permanent impacts from fill over wetlands. This only accounts for the footprint of the levee, and does not account for the wetland areas that will be impounded behind the levee. I estimate 11 acres of potential tidal wetland habitat upland of the new levee that will be lost.
        i. For all calculations of impacts to wetlands, account for all former salt pond areas that will be impounded upland of levees and permanently lose the potential for restoration into salt marshes.
    b. Alternatives to a large earthen levee with a trail on top should be considered in areas with many acres of wetlands impacts such as the Substation Reach. One example is a steel sheet pile wall with a lower trail on the Bay side. This design is being used on a portion of the proposed sea wall at the San Francisco Airport (SFO). At the Substation Reach, different wall types could be used in different areas. On the east and west sides of the site where wave energy is lower and there are numerous electrical towers, steel sheet pile walls could be placed on the edge of the PG&E property with an earthen wall on the north side. 102
        i. Consider additional alignments that minimize impacts to wetlands.
        ii. Negotiate easements on the edges of PG&E property for the flood wall or levee. PG&E's benefits from the project could be contingent on them contributing easements.
    c. Based on Figure 2-20, it appears the alignment of the Tech Campus Reach hybrid levee could be moved upland, preventing impacts to existing wetlands, however the EIR states (p. 4-39) that "This alternative was eliminated from further consideration due to the inability of the SFCJPA to reasonably acquire, control, or have access to the site." Has SFCJPA attempted to negotiate easements with Meta in exchange for the flood control benefits of the project? The OneShoreline Millbrae-Burlingame Project has gone through many alternatives and ended up with Alternatives A and B which minimize Bay fill and are on the shoreline on private property, so having a similar alignment should be feasible for SAFER as well. 103

i. Negotiate easements on Meta property for the levee to minimize impacts to wetland habitat and other impacts to public lands.
ii. A salt marsh pond on the east side of the property, approximately 6 acres in size, would be impounded by the levee and require the construction of a pump station for a stormwater outfall. Consider realigning the floodwall around the pond and along the highway, so it can stay a salt marsh and potentially no pump station would be required.
iii. If a new pump station is unavoidable, provide details on the layout and impacts of this station.

103 cont.

d. The habitat benefits of the levee transition zones may be overstated since they assume the marshes will accrete (rise up) with sea level rise. If the marshes do not accrete naturally, they will turn into open water with sea level rise and the investment in an earthen levee, with the associated destruction of habitat under the levee, will be for naught. If sediment addition is planned, then a shoreline transition zone may not be needed at this time (and could be created by the sediment addition). A recent study by the USGS[49] modeled the sea level rise vulnerability of 8 South Bay marshes and estimated that around 2040 the marshes may start transitioning from pickleweed to cordgrass with some marshes dropping below mean sea level (MSL) around 2080.
    i. Discuss the sea level rise vulnerability of the marshes fronting the levees in the project, estimate the year when marshes will transition to open Bay and use this to discuss the limits on the functionality of the levee transition zone. For sheet pile/earthen hybrid levees, consider reducing the height (and width) of the levee on the Bay side of the sheet pile to reflect this analysis.

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e. Note that the SF Bay Plan's Tidal Marshes and Tidal Flats policies 1 and 2 state that:
    i. Tidal marshes and tidal flats should be conserved to the fullest possible extent. Filling, diking, and dredging projects that would substantially harm tidal marshes or tidal flats should be allowed only for purposes that provide substantial public benefits and only if there is **no feasible alternative**.
    ii. Any proposed filling, diking, or dredging project should be thoroughly evaluated to determine the effect of the project on tidal marshes and tidal flats, and **designed to minimize, and if feasible, avoid any harmful effects**.

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3. **Biological Resources Impact BIO-4** says the project will have a less than significant impact on fish. Existing and proposed infrastructure for moving Bay water into and out of the Pond SF2 for WSP habitat is described starting on page 2-10. There are existing culverts and weirs owned by USFWS and a new pump station proposed between cells U1 and U2 to manage water in the new western snowy plover (WSP) habitat. This water management infrastructure and any other proposed for the project could have impacts to fish, particularly longfin smelt and white surgeon who prefer the

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[49] Modeling sea-level rise vulnerability for tidal wetlands of south San Francisco Bay

cool, less brackish shorelines of the Bay. If Bay water is proposed to be pumped into ponds, the impacts are not discussed in the DEIR.

   a. Conduct a study of each piece of individual new and repurposed water management infrastructure (including those listed in Table 3.11-6) for potential impacts to special status aquatic life and provide mitigation, such as fish screens, if appropriate. Fish screens should be required for any intakes of Bay water due the potential adverse impacts to longfin smelt and white sturgeon.

106 cont.

4. **Hydrology and Water Quality Impact HYD-3** Table S-2 says the project will have a less than significant impact on the existing drainage patterns of the site or area with mitigation, and one mitigation is provided for East Palo Alto: a new Runnymede Pump Station. **Utilities, Service Systems, and Public Services, Impact USP-1** says the project would have less than significant impact. However, the EIR does state that (without additional development) the project would add runoff to the existing storm drain system, potentially making flooding worse (p. 3-11.47) and therefore this is a potentially significant impact on drainage utilities. The DEIR states that the project will not cause shallower groundwater levels (page 3.11-49) however, no quantitative analysis is provided to substantiate this claim.

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   a. Section 3.11 (p. 3-11-42) and Table 3.11-6 state that the project will eliminate 4 stormwater outfalls north of Bay Road and add drainage area to the East Palo Alto storm drainage system and the O'Connor Pump Station, the main storm water pump station in East Palo Alto. The O'Connor Pump station is in the south end of the City, where groundwater levels are shallowest (per Figure 3.11-2). The Runnymede outfall on the north side of East Palo Alto is being replaced in the project with a new storm water pump station. Why is an upgraded O'Connor Pump station not included in the project when the impacts are primarily in that part of town? It appears no mitigation is provided for these impacts since the project proponent stated any other mitigations were already described in the 2014 City of East Palo Alto Stormwater Master Plan and so they are "planned" projects. However, the 2014 Stormwater Master Plan did not anticipate this levee project and the drainage impacts from this project could be substantial, particularly if the proposed Runnymede pump station doesn't adequately replace the carrying capacity of the 4 eliminated outfalls.

      i. Provide a quantitative analysis of the proposed project on the drainage system to quantify the contribution of the project to the drainage impacts, so the project can contribute a proportional amount to the O'Connor Pump station Upgrade project.

      ii. Provide quantitative analysis showing the Runnymede and O'Connor pump stations will adequately address drainage in East Palo Alto with the project in place.

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   b. Although the South of Bay Road Reach is analyzed at the project level in this DEIR, there are no drawings of a possible Runnymede Stormwater pump station, what new pipelines would be required, or where the outfall would be located, and no analysis of the impacts of these details. Mitigation Measure HYD-2a states that the pump station would be located "in the South of Bay Road Reach levee" however this is not a realistic location as it would compromise the levee stability and be at a distance from the stormwater system.

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i. Provide drawings of the likely layout of the Runnymede Pump station and all associated infrastructure. 109 cont.

c. There is known shallow groundwater contamination in East Palo Alto. The addition of pumping systems to lower groundwater tables and improve stormwater drainage could bring contaminated groundwater into the stormwater system through leaky pipes, to a greater extent than gravity discharge would. If the new pump station discharge is to the Bay, provide storm water quality data and/or groundwater data confirming it will be clean enough to discharge over the levee. Otherwise provide provisions to treat the water prior to discharge. SFO has acknowledged[50] their storm drain system draws in shallow groundwater (and is helpful in lowering shallow groundwater levels) and contaminants and consequently they treat their contaminated stormwater onsite. 110

d. The project will construct a deep steel sheet pile wall a little over 1 mile long on the east side of East Palo Alto along the South of Bay Road Reach. Recent studies[51] as well as the BCDC RSAP (page 32) highlight the potential for subsurface barriers, such as the sheet pile walls, to create groundwater emergence hazards. Groundwater emergence is a hazard due to the inundation of storm drains by groundwater, reducing or eliminating storm drain capacity and causing flooding during storms. Groundwater is currently within 3 feet of the ground surface in shoreline areas of East Palo Alto (p. 3.11-49) and groundwater emergence in East Palo Alto is expected to worsen with time due to sea level rise. In East Palo Alto, where there are currently groundwater emergence hazards in the form of stormy weather flooding in low-lying areas[52], the deep sheet pile walls could make the winter/high tide flooding even worse. The DEIR describes the shallow groundwater as being unconfined and flowing to the east towards SF Bay. Shallow groundwater quality is poor and there is reportedly substantial groundwater contamination in East Palo Alto. The stormwater pump stations' performance could also be enhanced by the steel sheet pile wall, but their radius of influence is unassessed. 111

i. Provide a hydrologic analysis of the potential for the steel sheet pile walls to exacerbate groundwater emergence hazards, in the present and in the future with additional sea level rise for the life of the project (out to 2100). Provide mitigation for any flooding hazards made worse by the confining effect of the subsurface barrier created by the sheet pile walls or revise the design to remove the subsurface barrier. 112

ii. Assess if any increased risk of groundwater emergence caused by the sheet pile walls could mobilize contaminants into the local drainage systems or to the surface. 113

iii. Consider a long term groundwater monitoring program to better understand this potential effect. 114

[50] From BCDC Engineering Criteria Review Board meetings on the SFO-Shoreline Protection Project in 2024.

[51] Su, X., Befus, K.M. & Hummel, M.A. Shoreline barriers may amplify coastal groundwater hazards with sea-level rise. *Sci Rep* **14**, 15559 (2024). https://doi.org/10.1038/s41598-024-66273-w

[52] SPUR, Nuestra Casa, and Pathways Climate Institute, "Look Out Below: Groundwater Rise Impacts on East Palo Alto – A Case Study for Equitable Adaptation", May 2024. SPUR_Look_Out_Below.pdf

e. Provide a hydrologic study examining the capacity of East Palo Alto's O'Connor storm water pump station to handle the additional drainage from the closing of the 4 gravity outfalls (coincident with impacts from the subsurface barriers). Mitigate any additional demands on the O'Connor pump station. 115

f. Analyze the need for and include anticipated interior drainage as required by FEMA. FEMA accreditation of floodwalls requires addressing interior drainage[53], typically done through the installation of french drains with pumps on the upland side of the wall that discharge over the wall to the Bay. If FEMA is going to require these drainage systems, include their design and potential impacts in this EIR, otherwise the CEQA compliance is "piecemealing". 116

5. **Impact LU-1** states that the project will have a less than significant impact due to a conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The SF Bay Plan[54], which sets the policies of the SF BCDC, includes the Water Surface Area and Volume Policy 1, which states: "The surface area of the Bay and the total volume of water should be kept as large as possible in order to maximize active oxygen interchange, vigorous circulation, and effective tidal action. Filling and diking that reduce surface area and water volume should therefore be allowed only for purposes providing substantial public benefits and only if there is no reasonable alternative." Ponds U2 and U3 of SF2 and the undeveloped land just to the south (approximately 280 acres); the mitigation lands bounded by University Ave, Bayfront Expwy and Willow Rd (approximately 77 acres); and ponds R5 and S5 (approximately 67 acres) are all parcels that without the project, would be expected to become an extension of the Bay with sea level rise. Portions of these areas are currently part of the Bay. The alignment of the levees in the project will prevent these areas from becoming inundated and as a result will decrease the potential surface area and volume of the Bay, in violation of the Bay Plan. Alternatives are clearly feasible. A potential impact of not complying with this policy includes accelerating sea level rise throughout the South Bay. In their 2025 publication[55], Nederhoff et al demonstrated the dampening effect on tides with the presence of tidal marshes fronting levees, particularly in the South Bay. In addition, locating coastal levees as far inland as possible will minimize the rate of tidal rise in the South Bay, as demonstrated by Hummel and Stacy.[56] Although the impact of tidal amplification from the project isolating 424 acres of potential tidal marsh behind a coastal levee may be small, on the order of centimeters or inches across the whole South Bay, it could equate to additional years when South Bay tidal marshes are not inundated. Note also that 117

[53] FEMA, FEMA Fact Sheet: Meeting the Criteria for Accrediting Levee Systems on Flood Insurance Rate Maps, May 2021.

[54] San Francisco Bay Plan, March 2025.

[55] Nederhoff, K.; Saleh, R; Barnard, P. and M Stacy, "Mitigating Flood Risks in Urban Estuaries: Tidal Dynamics, Shoreline Hardening, Nature-Based Solutions, and Floodgates in San Francisco Bay" ASCE Journal of Waterway, Port, Coastal, and Ocean Engineering, Vol. 151, Issue 6, September 5, 2025. Mitigating Flood Risks in Urban Estuaries: Tidal Dynamics, Shoreline Hardening, Nature-Based Solutions, and Floodgates in San Francisco Bay | Journal of Waterway, Port, Coastal, and Ocean Engineering | Vol. 151, No 6

[56] Hummel, M. A., & Stacey, M. T. (2021). Assessing the influence of shoreline adaptation on tidal hydrodynamics: The role of shoreline typologies. *Journal of Geophysical Research: Oceans*, *126*, e2020JC016705. https://doi.org/10.1029/2020JC016705

there will come a time when the Bay water level is so high that it will not be practicable to pump the water out of Ponds U2 and U3 for the WSP due to Bay water infiltrating into the ponds through and under the earthen levees. 117 cont.

a. Provide an alternative levee alignment that maximizes Bay area and volume. In particular, consider an interim levee between ponds U1 and U2, with the FEMA levee going along the upland side of U3. The Restore Hayward Marsh project has an interim levee between managed ponds, with a FEMA levee planned for the far inland edge of the marsh in the future. 118

b. Perform a hydrologic analysis comparing the risk of tidal amplification from locating the levee where it is (isolating future Baylands) with the alternative alignment where the levee is adjacent to development (as upland as possible). Mitigate any unavoidable isolation of future Bay area and volume. 119

c. Based on the elevation that ponds U2 and U3 need to be drained to perform as WSP habitat, provide an estimate of when Bay level will be so high that pumping water out of ponds U2 and U3 will no longer be practicable. As an example, mean sea level (MSL), the average surface level of the South Bay, is currently about 3.4 feet NAVD88. Groundwater levels adjacent to the Bay generally match or exceed MSL. If the bottom of the ponds is around 5 feet NAVD88, once the local groundwater levels get to about 6 feet NAVD88 it will be difficult to draw down below that level without a large amount of pumping. MSL is estimated to reach 6 feet NAVD88 after 2.6 feet of sea level rise or by about 2090 (Intermediate level risk scenario, State of California Ocean Protection Council (OPC) 2024). 120

I have the following additional comments, not specific to sections in the DEIR:

6. **This is an important project for coastal flood protection of the South Bay**, so critical that it should not be rushed by assessing impacts too broadly or eliminating less impactful alternatives due to time constraints or a lack of easement negotiations. 121
7. **The location of FEMA levees is generally fixed once they are constructed**, and so careful deliberation and input from many stakeholders should precede and inform determination of the alignments. Best practice for minimizing Bay impacts is to build FEMA levees as upland as possible, along the edge of development. The further out in the marsh levees are built, the greater the instabilities and settlement related to the Bay muds beneath. 122
8. **An SSAP should precede this project due to its large size and impacts**. Local governments are required by law SB272 (2023) to develop Subregional Shoreline Adaptation Plans (SSAPs) for sea level rise. BCDC issued guidelines for preparing SSAPs in December 2024. The project proposes a coastal flood protection system that is about 7 miles long and is designed to protect 3 cities. This is a large subset of San Mateo County's Bay shoreline and spans organizational landscape unit (OLU) 24 plus a portion of OLU 25, an extent that would be appropriate to have its own SSAP. The cities of Belmont, San Carlos, Redwood City, Menlo Park, and East Palo Alto were awarded a $2M grant from the OPC in September 2025 to prepare a SSAP that complies with the BCDC RSAP guidelines. Moving forward with this project before the SSAP is in place bypasses important elements of the RSAP process, namely 1) 123

implementing an equity strategy and performing equitable outreach and engagement, 2) assessing all coastal flood hazards including groundwater rise, 3) development of land use policies and codes that could distribute costs for coastal flood protection more equitably, and 4) consideration of alternatives to a very tall levee designed for 3.5 feet of SLR, such as gradual/phased adaptation and managed retreat (upland relocation of facilities). Although Table 1-1 shows that a very large number of public presentations on the project was given to community groups, and I understand the BRRIT has been reviewing this project for a long time, this outreach is different than the RSAP process, which asks the community what is important to them on their coast, and develops alternatives as an extension of those values and priorities. 123 cont.

   a. Aside from the South of Bay Road Reach portion of the project and the restoration elements of the project, it is recommended to wait to design the rest of the levees until a SSAP has been prepared, meeting the RSAP guidelines. 9.

9. **The project should consider all sources of coastal flooding, groundwater rise in particular.** Pathways Climate Institute and SFEI's report on shallow groundwater response from sea level rise[57] in San Mateo County states "Low-lying inland areas could flood from below by emergent groundwater long before coastal floodwaters overtop the shoreline." SPUR and Casa Nuestra identified current flooding in East Palo Alto from emergent groundwater and made the following recommendation in their 2024 study (see earlier footnote): "Require all city plans and infrastructure projects to assess the risks of groundwater rise and compound flooding." This project doesn't comply with this and risks exacerbating the inequities experienced by the East Palo Alto community. The City of Alameda, who also currently experiences stormwater flooding from shallow groundwater[58], is including upgrades to stormwater infrastructure in their SLR adaptation planning projects (one example is the Northern Waterfront Area northern-waterfront r4.pdf). There are limited dollars available for sea level rise resilience and it makes sense to fund the highest priority projects first. In addition, city public works departments all around the Bay are severely underfunded and struggling to keep up with capital improvements and maintenance. Multibenefit projects such as this that can qualify for grants should include the necessary drainage upgrades related to sea level rise adaptation, even if similar projects exist in city's master plans. 124

   a. Assess current and future impacts of SLR-induced groundwater rise in the project area and in East Palo Alto specifically, include solutions in the project to reduce these risks, and schedule the construction of infrastructure to address groundwater emergence flooding prior to levee construction in areas like East Palo Alto where it is an immediate hazard to the community.

10. **Transparency regarding funding sources for project construction and maintenance, particularly Substation and Tech Campus Reaches**. PG&E and Meta are large for-profit companies. The Substation and Tech Campus reaches will provide huge flood protection benefits to these corporations, and design, permitting, construction and maintenance will potentially be funded by taxpayers. While these companies pay property taxes like all landowners in the County, and (in PG&E's case) provide a public benefit, they are different in that their use of the land is for the ultimate 125

[57] Shallow Groundwater Response to Sea Level Rise | San Francisco Estuary Institute
[58] City of Alameda and Silvestrum Climate Associates, The Response of the Shallow Groundwater Layer and Contaminants to Sea Level Rise, November 2020 slr2020.pdf

purpose of making profits. In 2024 Meta reported a net income of $62.4 billion and PG&E reported a profit of $2.47 billion. Although not required to, the DEIR doesn't explain where the funding will come from for this project. It is not equitable for taxpayer funds to benefit large, profitable private companies that are financially capable of funding their own flood protection. Many municipalities around the Bay (including Burlingame and Alameda) require private property owners on the shoreline to be responsible for SLR resilience on their properties. 125 cont.

a. Provide transparency and opportunities for public input regarding the financing of all phases and segments of this project.
b. As levees and other grey infrastructure in the project will fail without adequate maintenance, explain which entities will be responsible for levee maintenance and how that work will be funded.

JOINT LETTER EXHIBIT B

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M E M O R A N D U M

To: Citizen's Committee to Complete the Refuge, Palo Alto
Date: June 14, 2022
SUBJECT: San Francisquito Creek Joint Powers Authority SFCJPA Notice of Preparation (CEQA): Strategy to Advance Flood Protection, Ecosystems and Recreation along San Francisco Bay Project Environmental Impact Report considerations

Executive summary:

These comments are submitted on behalf of the Citizens Committee to Complete the Refuge (CCCR) in response to the San Francisquito Creek Joint Powers Authority SFCJPA Notice of Preparation (CEQA): Strategy to Advance Flood Protection, Ecosystems and Recreation along San Francisco Bay Project Environmental Impact Report, dated April 22, 2022. The purpose of our comments is to assist SFCJPA in scoping the EIR to provide sufficient information and analysis of the Project design and environmental consequences over a very long period of time (100 year design life for sea level rise adaptation), in sensitive tidal wetland and bayland environments. We are also submitting a Memorandum from Dr. Peter Baye, Coastal Ecologist, Botanist, dated June 14, 2022 regarding this subject. [CCCR organization mandate, goals, concerns] Based upon our review of the NOP, we would like to recommend that the EIR focus on the following major perspectives and concerns:

- **Bayland landscape settings** (non-tidal baylands, uplands, high tide line position, and tidal marsh) should provide a framework for design and impact assessment. All plan view figures showing alignment of levee and transition zone habitat designs, and impact analysis should be clearly framed in relation to their position within bayland landscape (landform and habitat) settings. Drawings and designs should clearly display the degree to which new levees and constructed transition zone (ecotone) slopes are set back landward of the high tide line, or encroach into existing tidal marsh.
- **Substrate specifications** used to construct habitat transition zones, especially the root zone (upper soil profile) are essential for assessment of project feasibility and environmental effects. They are as essential to project description as elevations.
- **Phasing for incremental construction of habitat transition zones over time, in pace with sea level rise**. Just as the NOP indicates the potential need to phase construction for logistical project needs, environmental impact minimization needs also justify evaluation of alternatives that include incremental "thin-layer" lifts of sediment for gradual construction of habitat transition zones, within the range of (non-destructive) burial tolerance of transition zone vegetation.

- **High tide refuge design and assessment should include the entire tidal marsh-upland gradient, not just the high tide line**. We support the NOP to assess the entire distribution of high tide refuge habitat across the tidal marsh landscape, and plan for long-term integrated co-management of high tide refuge habitat both within constructed transition zones, and in the related tidal salt marsh platform.

In addition, we recommend explicit focus on project impacts on non-native plant species invasions (spread of wildland upland and wetland weeds), and mitigation measures based on integrated weed management during all project stages, including pre-construction management and imported fill selection, stockpiling, and handling.

Recreational trail alignments and vegetation designs should be integrated to minimize behavioral impacts of trail uses on wildlife in tidal marshes and transition zones.

Memorandum to Citizens Committee to Complete the Refuge

1. As requested, I have reviewed the SFCJPA Notice of Preparation for the flood protection/ecosystem/recreation project in the South Bay, and I am providing CCCR with some recommendations for EIR preparation to support meaningful, adequate environmental assessment of this complex project and environmental setting, over a project life of about a century.
2. **Programmatic environmental assessment considerations**

   2.1 Location-dependent and setting-dependent environmental assessment. The Project proposes to "increase the diversity of habitat by building tidal salt marsh-upland transition zone habitat (transition zone habitat) on the bayward slope of appropriate segments of levee adjacent to existing and/or restored tidal salt marsh." This general description does not distinguish the fundamental design and impact context of whether levee features are built landward or bayward of the existing high tide line, in tidal wetland gradients. Impacts and ecological performance of levees, horizontal levees, habitat transition zones, etc. are more dependent on location and the context of environmental setting than they are on their dimensions and slopes. The impacts of constructing new levees or habitat transition zones are not all inherent in design features. They depend on the surrounding habitats and physical geography, and their positions within the land-shore gradient. Position and siting of levee features within the land-shore gradient include major contrasting differences in *bayland landscape settings* such as:

   - Construction of habitat transition fill slopes (zones) in non-tidal baylands restored to tidal hydrology ("blank slate" bayland setting; no fill encroachment or truncation of existing tidal marsh);
   - Set-back of constructed habitat transition fill slopes landward of or up to the existing high tide line adjacent to existing tidal marshes, where landward retreat spaces may be feasible (no fill encroachment or truncation of existing tidal marsh; e.g. Palo Alto Horizontal Levee pilot project);
   - Potential encroachment of habitat transition fill slopes, or levees, into existing

tidal marshes; distinguish fill encroachment into narrow fringing tidal marshes and wide tidal marsh platforms with creek networks.

These distinct bayland landscape settings, considering both land-side and bay-side constraints and environmental sensitivities, are particularly important for assessing whether a "typical" cross-section design may be likely to provide net habitat resilience and enhancement during sea level rise, or whether it would risk excessive near-term encroachment and truncation of shrinking tidal marsh habitats, which undergo both submergence from sea level rise, and bay edge erosion. The EIR should introduce and organize discussion of impact assessments and project designs in explicit context of bayland landscape settings like these. Figure 1 of the NOP (project location and components) does not represent bayland landscape settings or levee alignments across them. Corresponding plan view figures in the EIR should make levee alignments and positions plain, in relation to tidal marsh and high tide line positions. Otherwise, programmatic environmental assessment of typical project designs would almost certainly result in confusing or misleading general conclusions. The more reach-specific (shoreline segment specific) programmatic environmental assessments of designs are, the more likely they are to provide a basis for clear understanding of near-term and long-term potential impacts, and support meaningful, specific comments.

2.2. Substrate-dependent and hydrology-dependent ecological performance. Substrate types, sources, and specifications for levees, habitat transition zones, or horizontal levees are not discussed in the NOP. The massive size of the project, even if constructed over long periods of time, would require commensurate massive volumes of imported fill. Substrate characteristics affecting vegetation composition (such as porosity, bulk density, percentage clay, percentage sand, percentage gravel or rock fragments, weed seed bank density and composition) or vegetation dynamics (drought impacts) depend on both fill source constraints, and on substrate design specifications. Vegetation composition, structure, and dynamics shaped by substrate, in turn, shapes habitat functions. The habitat functions of representative or typical conceptual levee cross-section designs (figures 2-8, NOP) cannot be predicted or meaningfully interpreted without reference to substrate attributes and sources. Upland subsoils, bay sediments, and terrestrial alluvial sediments have highly significant persistent differences as substrates for vegetation of levees and habitat transition zones. These differences are inherent, and generally cannot be modified feasibly by amendments or vegetation management.

For example, the substrate properties influence the height and density of vegetation cover bordering public trails. This is an important variable for screening wildlife visual cues, and limiting human disturbance, or entry of habitat areas by people or off-leash dogs. Some mitigation measures may depend on vegetation "buffer zones" along trails that restrict access. Those functions would depend on substrate conditions that enable design vegetation to perform them.

Substrate that restricts root development or amplifies dieback, injury or growth inhibition effects of drought, may cause a target vegetation to convert to either weed-dominated vegetation, or more sparse, open non-target vegetation types, or

cause excessive need for maintenance beyond the capacity of managers (which is often the case on constructed levees).

Substrate is particularly important for assessment of potential failure to meet ecological objective (or mitigation requirements) for marsh wildlife high tide refuge habitat at or above the high tide line. Substrates that inhibit growth or survivorship of tall, dense vegetation cover during and after droughts, or promote competition of weeds over target vegetation, may negate basic project goals. Substrate specifications are essential to assessment of terrestrial ecotone high tide refuge habitat.

The EIR should clarify substrate and hydrology assumptions for location-specific levee designs, distinguishing between "dry" (winter-moist, summer-dry), well-drained habitat transition zones, and constructed sub-irrigated slope wetlands, like the Oro Loma and Palo Alto horizontal levee demonstration projects. The ecological and hydrological functions and habitat structure of wetland horizontal levees are qualitatively different from those of "dry" habitat transition zones, and their potential ecological interactions with contiguous tidal marsh are also significantly different.

The EIR should therefore either state assumptions for substrate used to construct "topsoil" and subsoil root zones, or include concept-level specifications for them, and assess the performance of vegetation and habitat related to substrate. The EIR should distinguish the substrate and hydrology of wetland horizontal levees, and their effects on vegetation and habitat structure on the slope and in the adjacent tidal marsh (brackish marsh gradients) if they may be included in the project.

3. Resource-specific environmental impact and design considerations

3.1 Sea level design criteria and programmatic evaluation of phased construction. The project adopts Ocean Protection Council (OPC) guidance to plan resilience for 3.5 feet of sea level "additional 3.5 feet of tidal elevation to account for anticipated sea level rise as well as other applicable FEMA design criteria…". The NOP also states [p. 5] "In some cases, levees might be constructed and raised in stages given the long-term impacts of sea level rise and budget limitations… precise routes within some reaches have not been finalized and could depend on funding, land acquisition…." Similarly, the EIR should consider alternatives and mitigation measures that include levee or habitat transition zones also raised in stages or increments to distribute and dissipate habitat impacts over decades, minimize near-term wetland fill impacts, in closer pace with sea level rise rather than a full century ahead of it. If all project alternatives have criteria set for flood control levees to meet 3.5 feet of sea level rise (including extreme sea level events), single construction levee projects would have to place fill all at once for a century of sea level rise. Where levee/habitat transition zone fills may encroach tidal marsh, this impact may have non-linear impacts on marsh habitats, as tidal drainage networks and wildlife home ranges become reconfigured by bayward habitat transition zone fills, including uplands that may not be reached by the high tide line for decades.

For example, "thin lift" sediment lifts in tidal marshes (generally 15-20 cm or less, depending on vegetation type and sediment burial tolerance) are designed to allow

rapid direct vegetative recovery of buried vegetation, more than new colonization of bare substrate. A similar method of thin-layer "construction" should be evaluated for incremental construction of lower habitat transition zones if they encroach on existing tidal salt marsh (e.g., sediment fans deposited by hydraulic slurry placement, or mechanically placed unconsolidated muds washed into fans by high pressure hoses). If all levee and habitat transition zone construction is restricted to upland (landward of high tide line) sites, this measure may not be needed for initial project construction, but it may be considered as a maintenance or adaptive management measure to keep pace with higher-than expected rates of sea level rise, with reduced impact.

3.2 High tide refuge habitat analysis within and landward of tidal marsh platforms. The NOP states [p. 5] "An assessment of high tide refugial habitat functions in the face of sea level rise will be performed in existing high-quality marshes. This assessment will be utilized in collaboration with resource agencies to determine if and where the project would propose construction of transition zone or other types of high tide refugial habitats in existing high quality marshes." This is very appropriate and necessary for environmental assessment. The EIR should not presume that all or most important high tide refuge habitat either is or should be along the landward edge (high tide line) of tidal marsh habitats in all settings. Well-distributed high tide refuge habitats occur within home ranges of salt marsh wildlife species, especially in tall vegetation canopies along well-drained tidal creek banks, as well as at landward edges of marshes, where terrestrial predator risks may offset some of their benefits. The EIR should consider active management of internal marsh high tide refuge habitats as potential mitigation for short-term and long-term impacts of levee construction, to enhance resilience of cross-shore high tide refuge habitats (landward-edge and interior refuge habitats interacting at different tide levels. The EIR should not conflate marsh substrate elevations with the actual high tide refuge cover (leafy vegetation canopy height above marsh substrate and water surface elevations during marsh submergence).

3.3. Tidal Marsh-Upland Transition Zone Habitat. The EIR should distinguish highly contrasting types of "transition zones", "horizontal levees" that are suitable habitats for target species which are not compatible in the same vegetation types and locations. For example, the NOP identifies high tide refuge habitat for salt marsh harvest mouse and California Ridgway's rail in constructed broad, gently sloped tidal marsh-upland transition zones or "horizontal levees", and also rare plants like California sea-blite (note spelling; not "blight", meaning disease) and salt marsh bird's-beak. While mouse and rail high tide refuge habitats share the same basic requirement for tall, dense patches of vegetation above highest tide elevations, this habitat is entirely incompatible with the vegetation and substrate conditions for salt marsh bird's-beak and California sea-blite, which in turn occupy different high marsh substrate and vegetation types (sparse, short turfy salt marsh and pan edges, and coarse, well-drained estuarine beach or high marsh berms, respectively). The EIR planning to accommodate these contrasting species within the project area (and snowy plovers as well) requires geographic demarcation of designed bayland landscape settings.

The EIR should clarify and define explicit working definitions and criteria (including slopes, substrates, hydrology, vegetation types) for all project-defining terms like

“horizontal levee”, “habitat transition zone”, “ecotone levee”, noting both synonyms and relevant distinctions. Over-broad use of the same terms like “horizontal levee” for slopes as steep as 6:1 or dryland vegetation, and tule-covered wetland slopes as flat as 20:1 can be confusing and misleading, and preclude clear understanding of important attributes like buffer zones, wildlife screening, and high tide refuge habitat distribution.

3.4. Western Snowy Plover Breeding Habitat Enhancement and bayland landscape setting. The NOP states that there “has been a loss of the ecosystem services that tidal marsh habitat provides, including nesting and foraging habitat and upland refugia for threatened and endangered species such as California Ridgeway’s rail, western snowy plover, and salt marsh harvest mouse”. Tidal marsh per se does not provide habitat for western snowy plover. Other tidal marsh-adjacent bayland habitats, including estuarine beaches and playa-like dry salt evaporation pond beds or similar unvegetated (or minimally vegetated) high-albedo habitats support western snowy plover habitats. The NOP correctly identifies pond R3 (not tidal marsh) as existing snowy plover habitat. The EIR should explain the long-term management planning status of pond R3 in the Refuge (managed salt pond versus tidal marsh) under 3.5 ft of sea level rise during the project design life. Tidal marsh transition zone features and amendments with Pacific oyster shell are not relevant to western snowy plovers; oyster shell habitat enhancement for snowy plovers requires a hypersaline or seasonally disturbed non-tidal or above-tide setting that restricts vegetation. The EIR should clarify that sustainable, feasible snowy plover habitat enhancement measures would be excluded in vegetated habitats like tidal marshes, and restricted to either salt pond, managed saline lagoon, or coarse (shell, sand, gravel) bay beach habitats.

3.5 Invasive plant species spread and management during and after construction. Disturbed soils during construction phases provide increased opportunities and vectors for dispersal and colonization of non-native invasive plant populations already established in tidal marsh edges and levees. Imported fill also brings a high risk of new invasive plant species colonization. The EIR should assess the existing range of invasive plants that are established on levees and high salt marsh habitats in the project area, the potential for increased spread and population size during and after construction, and adequate, feasible mitigation measures (an integrated weed management plan) based on early detection and management during and after staging, construction, and establishment phases.

3.6. Recreational trail alignments, designs, and mitigation measures. The EIR should consider opportunities to set back recreational trails as far as possible from the bayward slopes of levees or habitat transition zones, instead of designing them for full levee top (road) span. The bayward side of the levee top should be evaluated in the EIR designs as components of buffer zones that provide vegetative screening (knee-high or taller brushy or bristly native upland scrub vegetation; or dense, tall tule/bulrush vegetation on wetland horizontal levee slopes) to discourage people or dogs from establishing social trails to transition zone wildlife habitats. Recreational trail designs should also evaluate the feasibility of incorporating blinds to allow compatible wildlife viewing in sensitive areas where spur trails may cause excessive long-term wildlife disturbance. Wide transition zone habitats should be expected to become potential

breeding habitats for terrestrial wildlife and some waterfowl, and movement corridors for terrestrial wildlife using tidal marshes; they would not be just a buffer zone or high tide refuge habitat for tidal marsh wildlife.

JOINT LETTER EXHIBIT C

Table 1 Summarizing SFBBO Nest Data for Ravenswood Ponds 2008-2023

Year	Location	Nests	Depredated	Abandoned	Flooded	Unknown	Total Nests	Comment
2008	R1	11	2				13	
	R2	0						
	R3		1				1	
	R4	1					1	
	R5							
	SF2	2					2	
2009	R1	4					4	
	R2	0						
	R3	2					2	
	R4	2					2	
	R5	2					2	
	SF2	17	6				23	
2010	R1	3		1			4	
	R2	1					1	
	R3	5	2				7	
	R4	7	8	1			16	
	R5	8	3				11	
	SF2	22	9	2			33	

Year	Location	Nests	Depredated	Abandoned	Flooded	Unknown	Total	Comment
2011	R1	0	1				1	
	R2							
	R3	2	1				3	
	R4	6	3				9	
	R5	3	3				6	
	SF2	16	2				18	
2012	R1	11	1				12	
	R2	4	1				5	
	R3	3	2				5	
	R4	4	1				5	
	R5	1	1				2	
	SF2	2	3				5	
2013	R1	12					12	
	R2	4	3				7	
	R3	0					0	
	R4	6					6	
	R5	0					0	
	SF2	3	3				6	

Year	Location	Nests	Depredated	Abandoned	Flooded	Unknown	Total	Comment
2014	R1	13		2		1	16	
	R2	0					0	
	R3	4	2	2		1	9	
	R4	5	1				6	
	R5	0					0	
	SF2	3	7				10	
2015	R1	5	1	1			7	
	R2	1					1	
	R3	7	4				11	
	R4	23	6			1	30	
	R5	4					4	
	SF2	19	8	2			29	
2016	R1	1	1				2	
	R2	0					0	
	R3	4	7				11	
	R4	8	3				11	
	R5		1				1	
	SF2	8	5				13	

Year	Location	Nests	Depredated	Abandoned	Flooded	Unknown	Total Nests	Comments
2017	R1	0						
	R2	0						
	R3	8	4				13	1 nest failed to hatch
	R4	15	15				30	
	R5	3	5				8	
	SF2	22	10				32	
2018	R1	1					1	
	R2	0	1				1	
	R3	5	2				7	
	R4	7	4				11	
	R5						0	
	SF2	4	6				10	
2019	R1	1					1	
	R2	0					0	
	R3	8	3				11	
	R4	9	6				15	
	R5	0					0	
	SF2	1	5				6	Lg flock of crows

Year	Location	Nests	Depredated	Abandoned	Flooded	Unknown	Total Nests	Comments
2020	R1	7	1				8	
	R2	0					0	
	R3	3					6*	*3 nests detected as brood
	R4	5	1	1			7	
	R5	0					0	
	SF2	0					0	COVID pond not sampled
2021	R1	10	0		1	1	17	1 failed to hatch 4 detected as brood
	R2	0					0	
	R3	3	1				4	
	R4	13	5	2			20	
	R5	0					0	
	SF2	1					1	
2023	R1	15	1				23	1 other 7 detected as brood
	R2	2					3	1 detected as brood
	R3	16	15			1	35	3 detected as brood

Year	Location	Nests	Depredated	Abandoned	Flooded	Unknown	Total Nests	Comments
	R4	14	3				22	5 detected as brood
	R5	2					2	
	SF2	0					1	1 detected as brood

JOINT LETTER EXHIBIT D

City of Palo Alto
Department of Finance

REAL ESTATE DIVISION
(415) 329-2677

April 13, 1994

Ms. Georgia Shirilla
Realty Specialist
U.S. Fish and Wildlife Service
500 N.E. Multnomah St.
Portland, OR 97232

Divisions
Purchasing
415.329.2271
Real Property
415.329.2264
Revenue
Collections
415.329.2317
Treasury
415.329.2264

Re: Faber/Laumeister Cooperative License Agreement

Dear Ms. Shirilla:

Enclosed is a fully executed copy of the agreement between the City of Palo Alto and the U.S. Fish and Wildlife, for the Faber/Laumeister Tracts, in Palo Alto California.

Item II. C., requires that a written yearly workplan of activities be reviewed with the City. The Superintendent, Open Space and Sciences should be contacted upon your preparation of this yearly plan. The City's contact person during the next several months would be John Walton, if there is any change to this John or I will notify you.

Feel free to call me at (415) 329-2472, if you have any questions.

Sincerely,

Martha E. Miller
Real Property Analyst

cc: John Walton

P.O. Box 10250
Palo Alto, CA 94303
415.329.2468 Fax

COOPERATIVE AGREEMENT BETWEEN
THE U.S. FISH AND WILDLIFE SERVICE
DEPARTMENT OF THE INTERIOR AND
THE CITY OF PALO ALTO, CALIFORNIA

I. PURPOSE

The U.S. Fish and Wildlife Service, Department of the Interior, hereafter referred to as the "Service", enter into this Cooperative Agreement pursuant to 31 USC 6305 (Using Cooperative Agreements). This Cooperative Agreement between the Service and the City of Palo Alto, California, hereafter referred to as "City", is hereby entered into under the authority of the Fish and Wildlife Coordination Act (72 Stat. 563; 16 USC 661 et seq.); the Fish and Wildlife Act of 1956 (16 USC 742(d) 754); the Endangered Species Act of 1973, as amended (P.L. 95-632, 16 USC 1533, 1534); and the San Francisco National Wildlife Refuge Act (P.L. 92-330, 16 USC 668dd note). It is the purpose of this agreement to have both parties to the agreement cooperate in the protection and enhancement of the unique tidal salt marsh ecosystem where at least two Federally-listed endangered species (the California clapper rail, salt marsh harvest mouse) and other candidate plants and animals for Federal listing are found.

II. SCOPE OF WORK

City is the record owner of property commonly referred to as the Faber-Laumeister tract, San Mateo County, California which is designated as tract 203 on the attached map, Exhibit "A" (the "Property").

The Service will:

A. Coordinate its activities on the Property with City so that the purposes for this agreement can be fulfilled;

B. Manage the flora, fauna, and critical habitat of the property as part of the San Francisco Bay National Wildlife Refuge, in accordance with applicable authorities.

C. Prepare a written, yearly work plan of activities to be carried out on the Property. Service shall review the work plan or any modifications to the plan, with City, and obtain City's prior written consent thereto prior to performing any work under the plan or modification(s). The City's contact for review and consent of the plan is the Superintendent, Open Space and Sciences at 415/329-2590.

City will:

A. Inform the Service, in the case of a non-emergency situation, whenever City intends to perform any maintenance or other types of habitat disruptive activities on the Property. Notification will be a written notice by City to the Service through the San Francisco Bay National Wildlife Refuge, P.O. Box 524, Newark, CA 94560, seven (7) days prior to the scheduled activity. A service biologist may request to be present to inform workers of the fragile and unique nature of the area;

B. Notify the Service, within twenty-four (24) hours, of any emergencies that could result in any habitat-disruptive activities on the property. Notification will be a phone call to the Service at 415/792-0222 (8a.m.--5p.m.).

C. Direct any persons wishing to conduct research or any type of work that may affect the habitat or wildlife on the Property to the Service for the necessary permits and authorization at the San Francisco Bay NWR, P.O. Box 524, Newark, CA 94560, 415 792-0222. It is understood that City shall have the independent right to restrict or control access to the Property. Approval for access will not be unreasonably withheld, so long as the request is consistent with the City's desire to protect the habitat.

III. NOTICES

Whenever notice is required by this agreement, it shall be mailed, first class, postage prepaid, to the following:

To SERVICE: U.S. Fish and Wildlife Service
Project Leader
San Francisco Bay NWR
P.O. Box 524
Newark, CA 94560

To CITY: City of Palo Alto
City Manager
P.O. Box 10250
Palo Alto, CA 94303

IV. LICENSE

This agreement is merely a license issued by City to the Service and confers to Service no rights of ownership or use over the property other than as specifically described in this agreement.

V. TERMINATION

This agreement shall become effective as of the date of the last signature and shall continue in perpetuity unless terminated by either party upon 60 days written notice to the other.

ATTEST:

City Clerk

CITY OF PALO ALTO

Liz Kniss

Mayor

Date: 4/7/94

APPROVED AS TO FORM:

Senior Asst. City Attorney

U.S. FISH AND WILDLIFE SERVICE

By: Richard B. Moore

Its: Regional Realty Supv.

Date: 2-25-94

APPROVED:

City Manager

APPROVED AS TO CONTENT:

Manager of Real Property

Attachments:
EXHIBIT "A"

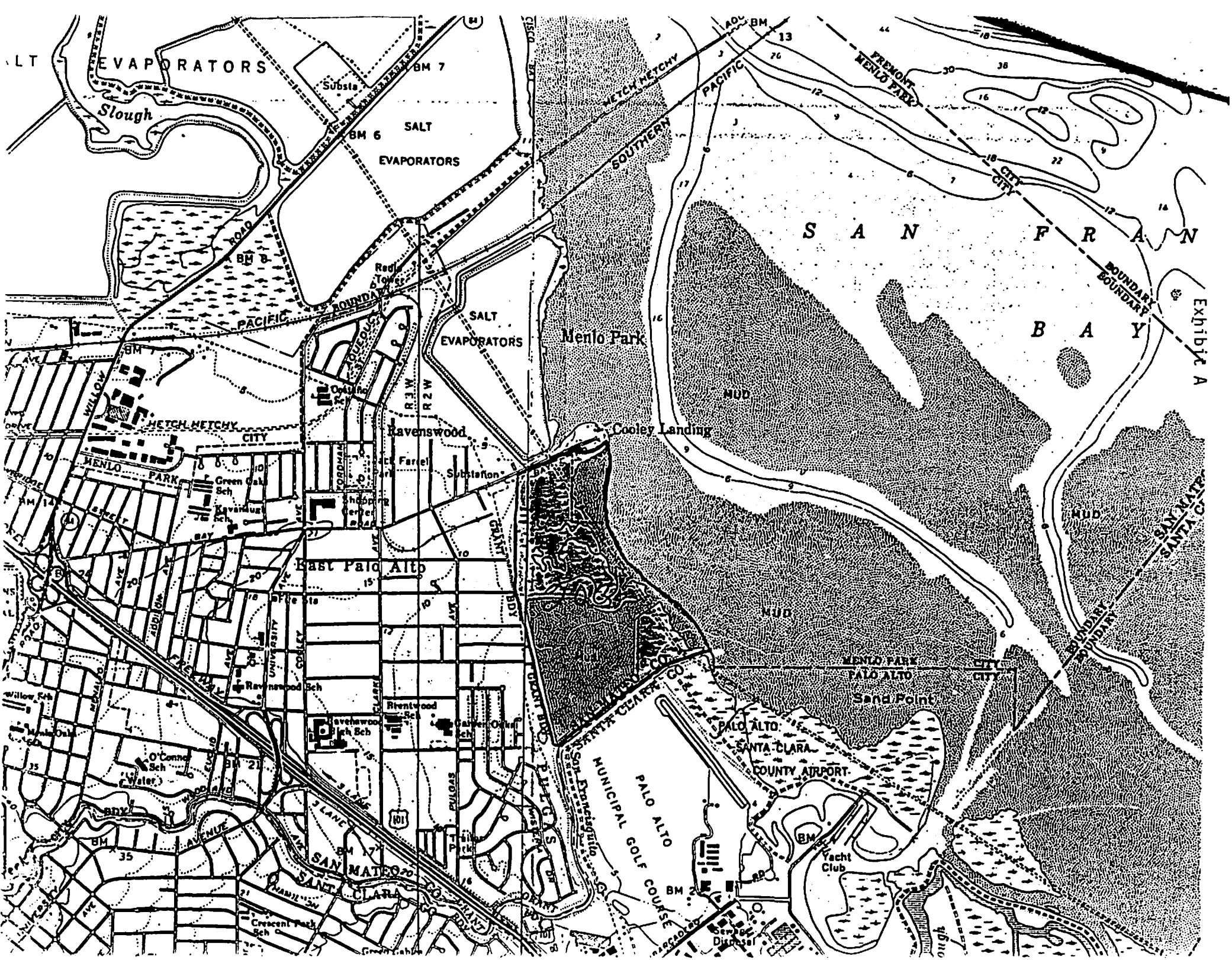
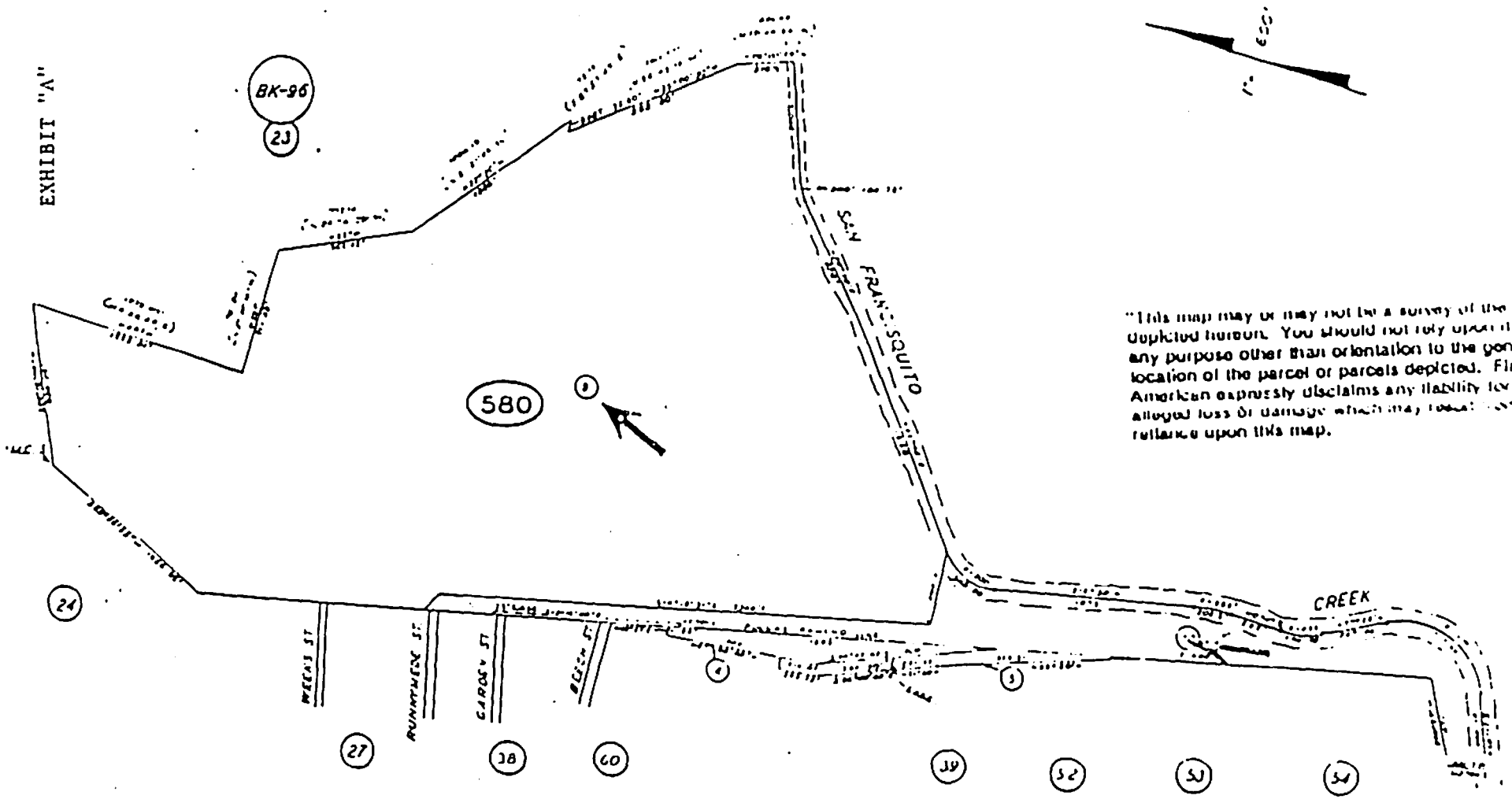

EVAPORATORS
Slough
BM 7
Substa
SALT
EVAPORATORS
BM 6
SOUTHERN PACIFIC
METCH HETCHY
FREMONT
MENLO PARK
CITY
CITY
SAN FRAN
BAY
BOUNDARY
BOUNDARY
Exhibit A
ROAD
BM 8
Redwood Tower
PACIFIC
BOUNDARY
SALT
EVAPORATORS
Menlo Park
MUD
TOROUEY
R3W
R2W
Ravenswood
Cooley Landing
WILLOW
METCH HETCHY
CITY
MENLO PARK
Green Oaks Sch
Kavanaugh Sch
Shopping Center
Substation
MUD
SAN MATEO
SANTA CLARA
East Palo Alto
GRANT
BDY
ADDISON
UNIVERSITY
CLARK
Ravenswood Sch
Riverwood Sch
Ravenswood Jr High Sch
Gardner Oaks
MENLO PARK
PALO ALTO
CITY
CITY
Sand Point
SAN MATEO CO.
SANTA CLARA CO.
MUD
Willow Park
Monte Oaks
O'Connor Sch
Water
BM 21
BM 35
PULGAS
WOODLAND
AVENUE
BDY
3 LANE
101
SAN MATEO CO. SANTA CLARA CO. LINE
Tide Park
BM 17
Crescent Park Sch
MANILA
PALO ALTO
SANTA CLARA
COUNTY AIRPORT
MUNICIPAL GOLF COURSE
PALO ALTO
BM
Yacht Club
BM 2
ARGUELLO
Sewage Disposal
San Francisquito

EXHIBIT "A"



"This map may or may not be a survey of the land depicted hereon. You should not rely upon it for any purpose other than orientation to the general location of the parcel or parcels depicted. First American expressly disclaims any liability for alleged loss or damage which may result from reliance upon this map.

© COUNTY OF SAN MATEO, CALIF

RAVENSWOOD SCHOOL DISTRICT

January 23, 2026

Subject: Public comment letter on the SAFER Bay DEIR

Dear San Francisquito Creek JPA,

We appreciate the opportunity to comment on the SAFER Bay Draft Environmental Impact Report. While we wholeheartedly support the SAFER Bay Project and appreciate the consideration of many community concerns, such as project-related traffic congestion issues and public access to the shoreline, we have identified several areas that we believe require further development in the Updated EIR in order to advance equitable and effective flood adaptation— particularly for the East Palo Alto and Belle Haven communities, where inland flooding is already being experienced during stormy King Tides events, such as in December 2025 (see photos in Appendix). 1

Impacted community members are deeply concerned about being protected from flooding both now and in the future, particularly given the high cost of recovery from flood damages (which many residents cannot shoulder), and the current cost burden of FEMA flood insurance requirements. Many residents hope the SAFER project will eliminate the need for mandatory flood insurance, but also want assurance that the SAFER project will deliver the promised level of protection, since a flood occurring after neighborhoods are removed from FEMA flood zones could have devastating consequences. Please keep in mind these concerns as you review our comments.

These recommendations were developed in partnership with Jenn Hyman, the Citizens to Complete the Refuge, and the Sierra Club, as well as community leaders and residents.

1. The Updated EIR should comprehensively evaluate all sources of impacted coastal flooding, including sea level rise–induced groundwater rise.

Research by the Pathways Climate Institute and the San Francisco Estuary Institute demonstrates that low-lying inland areas may flood from emergent groundwater well before shoreline overtopping occurs. East Palo Alto already experiences flooding from shallow groundwater, a condition documented by the Look Out Below report by SPUR and Nuestra Casa in 2024. 2

Despite this evidence, the DEIR does not adequately assess current or future groundwater rise impacts, nor does it incorporate solutions to mitigate these risks. This omission risks exacerbating existing inequities in East Palo Alto. The Updated EIR should:

- Quantitatively assess current and future groundwater rise and compound flooding impacts in the project area.
- Identify and incorporate project-level measures to reduce groundwater emergence risks. Sequence construction so that interior drainage infrastructure is implemented before levee construction in areas where groundwater flooding is already an immediate hazard.

1a. Groundwater Emergence Hazards & the Steel Sheet Pile Wall. The proposed mile-long ↓3

deep steel sheet pile wall along the South of Bay Road Reach presents a significant risk of exacerbating groundwater emergence hazards. Subsurface barriers can impede groundwater flow, inundate storm drains, and reduce drainage capacity—conditions already present and expected to worsen in East Palo Alto with sea level rise.

The Updated EIR should:

- Provide a hydrologic analysis of the sheet pile wall's potential to exacerbate groundwater emergence hazards under current and future sea level rise conditions through the project's life (out to 2100).
- Assess whether altered groundwater flow could mobilize contaminants into surface or drainage systems.
- Consider a long-term groundwater monitoring program to track and manage these risks.
- Identify mitigation measures or design alternatives to reduce subsurface barrier effects.

Given limited funding for sea level rise adaptation, multibenefit projects such as this should include necessary drainage upgrades, even if similar improvements appear in city master plans (like East Palo Alto's 2014 Stormwater Master Plan).

3 cont.

1b. Hazardous Materials Management. The SAFER project will be constructed along a shoreline with a long history of environmental contamination from historical and current industrial activities. Shoreline excavation has the potential to mobilize contaminants into Bay wetlands and waters and to expose construction workers, nearby residents, sensitive populations, and wildlife to hazardous substances. We have a number of concerns regarding proposals in the DEIR.

4

- **SAFER Health and Safety Plan:** Where SAFER will be constructed in areas with approved construction risk management plans (i.e., sites in the South of Bay Road and North of Bay Road reaches), the DEIR proposes to use the approved soil cleanup levels and protocols for those sites (page 3.10-19). However, the approved plans may not include adequate mitigation measures for a SAFER Health and Safety Plan.
    - **Require monitoring to ensure health & safety:** Existing site data may be incomplete, outdated, or based on criteria that are no longer considered protective. The EIR should require onsite soil and groundwater monitoring (i.e., field test kits, sensitive and specific chemical sensors) to be used during excavation in all reaches with past industrial use, requiring follow-up sampling and laboratory analysis when concentrations exceed screening levels.
- **Provide further protection from arsenic:** Several SAFER reaches contain elevated levels of arsenic, a major contributor to human health and cancer risk. Because levee slopes will not be paved and may be accessible to the public, the Updated DEIR should use of the Water Board's residential soil cleanup level of 11 mg/kg for arsenic, rather than less protective standards.

5

- **Clean imported soil:** We are concerned about the potential for imported soil/fill for levees to bring additional toxins into the community. Imported soils used for levees should also be screened more rigorously. While the Master QAPP focuses on protecting wildlife habitat, SAFER levees are often adjacent to residences, workplaces, schools, or parcels planned for future housing or schools. Therefore, levee soils should meet the more protective of the Master QAPP screening levels or the Water Board's current Tier 1 Environmental Screening Levels, with both sets of thresholds clearly presented in the EIR. It should also be clearly stated that ESLs are screening tools, not cleanup levels. 6

- **Address potential excavation impacts on air quality:** We are concerned that the DEIR's air quality analysis concludes construction impacts will be less than significant without evaluating exposure to noncriteria toxic air contaminants, such as arsenic, PAHs, and VOCs, that may be released during excavation and soil handling. This omission is especially troubling for communities adjacent to contaminated sites. For reaches such as the South of Bay Road Reach, where contaminated soils are capped (such as at 1990 Bay Road), additional reach-specific mitigation measures should be required. 7

1c. Contaminant Mobilization & Groundwater Pumping. East Palo Alto has known shallow groundwater contamination. The introduction of new pumping systems could draw contaminated groundwater into stormwater infrastructure or discharge it to San Francisco Bay. The Updated EIR should: 8

- Provide stormwater and groundwater quality data demonstrating that pumped discharges would meet water quality standards, or
- Include treatment measures before discharge if contamination risks are present. Comparable facilities, such as San Francisco International Airport, acknowledge and treat contaminated stormwater drawn from shallow groundwater; similar considerations are warranted here, or
- Require accelerated groundwater cleanups by the responsible parties of local contaminated sites.

FEMA accreditation of floodwalls requires adequate interior drainage, typically through French drains and pump systems discharging over the wall. If such systems are anticipated, their design, impacts, and mitigation measures must be analyzed in the Updated EIR. See next section for more information. 9

2. The Updated EIR should revisit conclusions regarding hydrology and drainage impacts. 10

While the DEIR characterizes impacts to drainage patterns and utilities as less than significant with mitigation, it also acknowledges that the project would add runoff to East Palo Alto's storm drain system and could worsen flooding conditions without additional development.

Key issues requiring further analysis include:

- The elimination of four gravity outfalls north of Bay Road and the resulting increased reliance on East Palo Alto's storm drainage system and the O'Connor Pump Station, which is located where groundwater levels are shallowest.
- The absence of quantitative analysis means that it is unclear if the proposed Runnymede Pump Station and existing O'Connor Pump Station can adequately handle post-project drainage demands.
- The lack of proportional mitigation for impacts to the O'Connor Pump Station, despite evidence that project-related drainage impacts may be substantial and were not anticipated in East Palo Alto's 2014 Stormwater Master Plan.

10 cont.

The Updated EIR should:

- Provide quantitative modeling of project-related drainage impacts and require proportional contributions to necessary pump station upgrades.
- Demonstrate, through analysis, that the Runnymede and O'Connor pump stations can adequately manage drainage with the project in place.
- Include conceptual drawings and analysis of the proposed Runnymede Pump Station, associated pipelines, and outfall locations, as well as their environmental impacts.

3. The Updated EIR should evaluate an additional mitigation strategy –a phased levee construction approach– to consider aesthetic impacts as well as lifespan and long-term maintenance concerns.

The DEIR appropriately concludes that Aesthetic Resources Impact AES-1 would be significant and unavoidable due to the height of the proposed levee and floodwall obstructing views of the Bay and marshlands. However, the Updated EIR should evaluate an additional mitigation strategy: a phased or adaptive construction approach, similar to an approach proposed by the Port of San Francisco in their recent Waterfront Coastal Flood Study (see Reach 3 Initial and Subsequent Actions, page 158-161). Specifically, the project should consider initially constructing earthen levees to FEMA-required heights, with additional elevation (e.g., steel floodwalls or concrete caps) added only when future sea level rise necessitates it. This approach aligns with the Bay Conservation and Development Commission's Regional Shoreline Adaptation Plan (RSAP), which emphasizes phased adaptation and cautions against building for the longest-term sea level projections prematurely. This approach could reduce near-term aesthetic impacts and avoid the risk of installing steel sheet piles decades before they are needed—particularly given their limited lifespan in marine environments and the potential for corrosion before they provide functional benefit.

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4. Additional questions for the SAFER Bay Project Team:

- How will the SAFER project effectively integrate with the Bay Conservation and Development Commission's Regional Shoreline Adaptation Plan (RSAP) priorities and process? Although we are grateful to see this project moving forward, the community would like to understand how RSAP priorities will be incorporated.
- How will this project be funded? This is an ambitious and expensive project, and the

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13

community would like to understand how it will be funded and what, if any, costs there may be on residents through taxes or other strategies. Furthermore, how will the impacted cities fund the ongoing maintenance of the levee after completion? Poorly maintained levees that fail could lead to property damages and residential displacement. 13 cont.

We urge the San Francisquito JPA to address these issues comprehensively in the Updated EIR to ensure that the project delivers effective, equitable, and durable flood protection without creating new or exacerbated flooding and water quality risks for East Palo Alto, Menlo Park, and Redwood City. 14

Thank you for your consideration.

Sincerely,

Jennifer Adams
Nuestra Casa

Juanita Croft
Belle Haven Community Development Fund

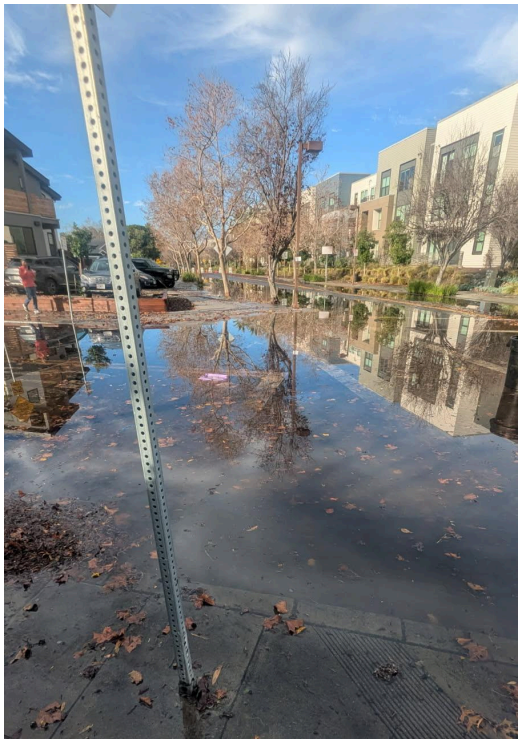
Violet Wulf-Saena and Cade Cannedy
Climate Resilient Communities

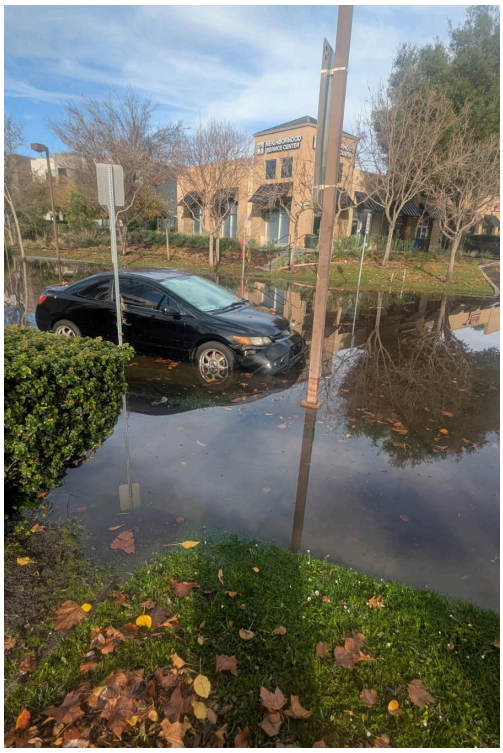
Sarah Atkinson
SPUR

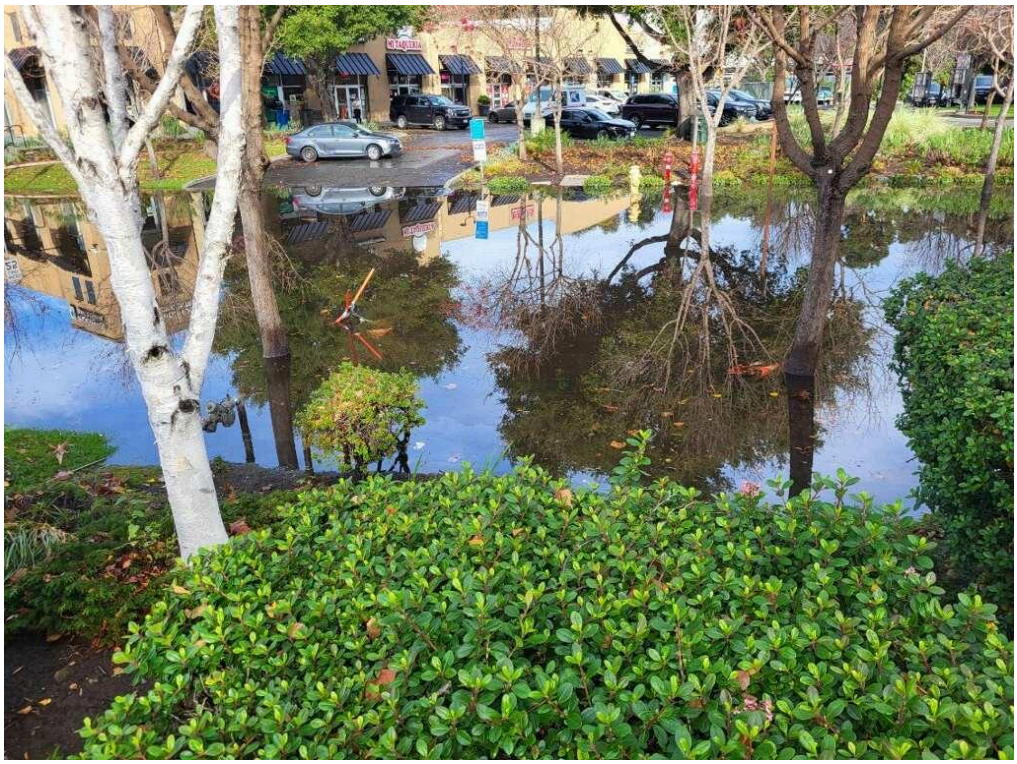
January 23, 2026

Appendix A. December 2025 Inland Flooding Photos

Photos of inland flooding in Belle Haven from December 24, 2025, between Willow Road and Henderson Avenue along Hamilton Avenue. Photos shared by Juanita Croft.







From: Tess Byler <tbyler@sfcjpa.org>
Sent: Friday, January 23, 2026 12:26 PM
To:
Cc:
Subject: Fw: Announcing: SAFER Bay Project DEIR Released

Tess Byler
D: 650.643.1454 | **C:** 650.304.4998

From: Bill Uhrig <Bill.Uhrig@tcr-ny.com>
Sent: Friday, January 23, 2026 11:26 AM
To: Margaret Bruce <mbruce@sfcjpa.org>
Cc: Tess Byler <tbyler@sfcjpa.org>
Subject: Re: Announcing: SAFER Bay Project DEIR Released

Tess and Margaret,

I am writing on behalf of Bay Road Holdings, LLC, the owners of a 17.5 acer parcel of land at the end of bay road with the general address of 2081 Bay Road.

First, thank you for all you have done to move forward the project of protecting the bay from sea level rise. Rather than have a long legal brief, I thought I would lay out areas of concern and suggest we collaborate to find a successful, low-cost solution. 1

Our areas of concern are:

1. The exact path in the area of the property (further away from the property line to minimize disturbance of dirt in our area) 2
2. Levy design (we think sheet piles are a better solution in our area rather than earth), 3
3. Drainage to the bay from our properties (we think your solution will block it) 4
4. Timing/order of construction 5
5. Design around cooly landing 6

Thank you,

J. William Uhrig
For
Bay Road Holdings, LLC

January 23, 2026 SENT ELECTRONIC AND U.S. MAIL

San Francisquito Creek Joint Powers Authority (SFCJPA)
Attn: Tess Byler
750 Menlo Ave. Suite 250,
Menlo Park, CA 94025.

RE: Cargill, Incorporated's Comments on Draft Environmental Impact Report – Strategy to Advance Flood Protection, Ecosystems, and Recreation along San Fracisco Bay (SAFER Bay) – State Clearinghouse No. 2022040504

Cargill, Incorporated ("Cargill") is a privately held U.S.-based company operating solar salt production facility in Redwood City, California. Cargill's facility is located in the area covered by the DEIR. Cargill has reviewed the DEIR and appreciates the opportunity to provide comments on the Draft Environmental Impact Report (DEIR) for the SAFER Bay Project. We have identified several items in the DEIR that should be clarified and expanded upon in the final EIR:

1. **Clarification of Terms**
    a. The Draft EIR refers EIR should clearly distinguish between:
        i. *Brine Channel* (a brine conveyance ditch used for transferring brines throughout salt ponds on the Redwood City site that runs along the south edge of Cargill's property), and
        ii. *Cargill RWC Return Line*; a 16-inch underground pipeline that transfers brines between Cargill's Redwood City plant and its Newark plant).

    b. Figure 3.4.2a – page 285. The EIR should distinguish Cargill's pond as a separate category from a "Managed Pond." Cargill's pond on the maps in the appendices should be labeled "Industrial/Operational Pond."

2. **Clarification of Proposed Impacts**
    The EIR should specify the proposed impacts to the *Brine Channel* versus the *Cargill RWC Return Line*. The current project description does not adequately differentiate these impacts.

    a. The "Existing Conditions" section for the Marsh Road Reach section (Page 2-55) should include a reference to *Cargill's RWC Return Line*. Additionally, "the canal

1
2
3

Cargill Salt
Land Management
7220 Central Avenue
Newark, CA 94560-4205
Tel (510) 790-8605
www.cargill.com

north of the proposed levee" should be revised to say, "the *Brine Channel* north of the proposed levee." 3 cont.

b. Cargill must maintain access to, and operation of the *Cargill RWC Return Line* throughout the project. If relocation of the *Cargill RWC Return Line* becomes necessary, the DEIR should describe the proposed process for relocation and include measures to minimize operational disruptions. Additionally, the EIR should specify how Cargill will be compensated for any unavoidable disruption related to relocating the *Cargill RWC Return Line*.

c. The *Brine Channel* is also essential for Cargill's operations, as it facilitates the movement of brine across the facility's various ponds. The DEIR proposes acquiring portions of the *Brine Channel* to a construct a levee. Consequently, the project must include plans to replace any sections of the *Brine Channel* that are acquired, and a description of these plans must be described in the EIR. 4

d. There is an existing water line that runs from the road on the south side of the PG&E Ravenswood substation to the donut on the western edge of Pond R2. If relocation of this water line is required, the EIR should outline the proposed process for relocation, including measures to minimize disruption to operations. [Water line from "C" on Figure 2-17 to R2 Donut]

e. The *Cargill RWC Return Line* should be shown in the project maps (Cargill has enclosed of map with these comments). 5

3. Proposed Process for Acquiring Cargill Property for the Project

The EIR should outline the process for acquiring any property required for the project and provide details on how Cargill will be compensated for such land acquisitions. In addition, the EIR should specify any necessary investments or replacements for Cargill's infrastructure that may be affected or disrupted by the project. 6

4. Clarification of Ownership of Cargill Property

The DEIR incorrectly refers to Cargill as the "Cargill Corporation" on pages S-2, 2-3, 3.11-4, 7

3.11-5, and 3.11-14. This should be revised in the EIR to "Cargill, Incorporated." ↑7 cont.

Cargill appreciates the opportunity to review and provide comments on the SAFER Bay DEIR. We look forward to continued collaboration with the SFCJPA and other stakeholders on this important project for the San Francisco Bay.

Sincerely,

Don Brown
Senior Director, Cargill Salt, Land Management
Cargill, Incorporated
(952) 742-6780 direct
(651) 303-1839 mobile
Don_J_Brown@Cargill.com

RSBD

RAVENSWOOD SHORES BUSINESS DISTRICT, LLC (RSBD)
PO Box 51862, Palo Alto CA 94303
Jeff Poetsch, President -
Phone - 650-207-4994 / email - jeffcp@earthlink.net

January 23, 2026

San Francisquito Creek Joint Powers Authority ("JPA")
Attn: Tess Byler
750 Menlo Avenue, Suite 250
Menlo Park, CA. 94025

Via e-mail - tbyuler@sfcjpa.org

RE: Comments to the SAFER Bay Draft EIR

Dear Ms. Byler

The Ravenswood Shores Business District ("RSBD") is a California limited liability company comprised of the majority of the landowners and businesses located in the 100-acre Ravenswood Business District ("RBD") area of East Palo Alto. Membership includes about seventeen corporate and non-profit property owners and was established to speak with one voice for the benefit of our membership. In additions to small businesses and local not for profits, our members also include some of the major landowners in the RBD whose properties will be impacted by the implementation of the SAFER Bay project in both the south of Bay Road and north of Bay Road reaches. 1

The RSBD appreciates the years of effort that have gone into crafting the SAFER Bay project. Planning for current flooding issues and sea level rise is critically important and the SAFER Bay project is an excellent blueprint to begin to address this challenge. However, the devil is always in the details, and we have some concerns that we hope can be addressed. Specifically, these include:

1. South of Bay Road - Section S-2 - Proposed major development Projects south of Bay Road include fill of these sites to elevations of approximately 16 feet to 17 feet (NAV88). It is not clear how the JPA proposes that these sites will then merge with the new levee. 2
2. South of Bay Road - Section S-2 - The proposed levee section includes excavation of "degrade to 2 feet below adjacent grade". - It is unclear from the site plans where the levee is located in relationship to property lines of these south of Bay properties and if this grading may impact contaminated soil on property currently under an approved . 3
3. North of Bay Road - Section P-1 - Proposed major development Projects north of Bay Road also include fill these sites to elevations of approximately 16 feet to 17 feet (NAV88). It is not clear how the JPA proposes that these sites will then merge with the new levee. 2 cont.
4. North of Bay Road - Section P-1 - Again, the proposed levee section includes excavation of "degrade to 2 feet below adjacent grade" and also includes what appears to be an excavation "wedge" down an additional 8 to 10 feet- It is unclear from the site plans where the levee is located in relationship to property lines of these north of Bay properties and if this grading may impact areas of contaminated soil. Clearly any levee development needs to avoid, to the degree reasonably practical, areas of contamination. 3 cont.

5. North of Bay Road - Much of the area north of Bay Road relies on a storm drainage system which drains directly to the Bay. This storm drainage will become ineffective with the construction of the levee. The development and implementation of a storm drainage master plan for the area north of Bay Road, must be an element of the project development and mitigation measure 4

6. North of Bay Road - Project Alternatives - The RSBD has suggested as an alternative the current placement of levee, an alignment which follows the Bay Trail. This alternative has been rejected noting a concern regarding the encroachment and impacts on existing wetlands. However, it appears that the current proposed alignment equally impacts these wetland and critical habitat. As such, we would suggest this alternative needs to continue to be considered. 5

Thank you for your consideration of these issues. We in the Ravenswood Shores Business District look forward to working with the JPA, to address and resolve some of these noted concerns.

Sincerely,

Jeff Poetsch

Jeff Poetsch, President and Executive Director
Ravenswood Shores Business District'

CC: Members, Ravenswood Shores Business District

Coblentz
Patch Duffy
& Bass LLP

One Montgomery Street, Suite 3000
San Francisco, CA 94104-5500
T 415 391 4800
coblentzlaw.com

Miles Imwalle
D (415) 772-5786
mimwalle@coblentzlaw.com

January 23, 2026

Tess Byler
Senior Project Manager
SFCJPA
750 Menlo Ave. Suite 250
Menlo Park, CA 94025

Re: SAFER Bay Project DEIR Comment

Dear Tess:

I. Introduction

These comments are submitted on behalf of Sycamore Real Estate Investment LLC ("Sycamore") regarding the Draft Environmental Impact Report ("Draft EIR" or "DEIR") for the proposed Strategy to Advance Flood Protection, Ecosystems, and Recreation along San Francisco Bay Project ("SAFER Bay Project"), with particular focus on the North of Bay Road reach. Sycamore is the owner of approximately 52 acres in the City of East Palo Alto ("City") situated along the Bay. Sycamore has a heightened interest in the SAFER Bay Project as the proposed shoreline protection alignment crosses a significant portion of its property.

As a Bayfront property owner with a longstanding commitment to the City of East Palo Alto, Sycamore is well aware of the need to address sea level rise and flood risk and has undertaken evaluation of site-specific shoreline protection designs for future development on its site. While Sycamore's specific design varies from what is described in the DEIR, Sycamore is aligned with the project objectives and supports including protection on portions of its property, although with modifications that reflect site-specific conditions and engineering considerations. We recognize that the Draft EIR has been prepared at a program level, which is appropriate at this stage of planning and affords the flexibility contemplated by CEQA for further refinement as individual shoreline projects are proposed. 1

Sycamore's other primary comment relates to the potential takings implications of requiring the dedication of its land for a structure that is, largely, for the benefit of the general public. As described below, the proposed earthen levee is not needed for Sycamore's proposed EPA Waterfront Project since the project is "self-mitigating" by raising the grade and including other shoreline protection that meets the objectives of the SAFER Bay Project. Further, large portions of the levee proposed on Sycamore's property only provide protection for neighboring communities and do not relate to an impact of development. We request that the Draft EIR clarify any dedication requirements and acknowledge that a takings would occur if there is no "nexus" to a development project. 2

We appreciate the substantial effort undertaken by the San Francisquito Creek Joint Powers Authority ("JPA"), the City, and their consultants in preparing the Draft EIR, and offers the following comments to support implementation of the SAFER Bay Project DEIR as a programmatic framework.

II. The Programmatic Evaluation in the Draft EIR Allows Design Flexibility

We appreciate that the Draft EIR conducted a "program" level analysis for portions of the SAFER Bay Project, including for the North of Bay Road reach that includes Sycamore's property. We agree that a program level of review is appropriate as it reflects the fact that the SAFER Bay Project remains in the early stages of design and that it crosses over private property and through multiple jurisdictions, so it may require further refinements and changes. 3

As described in the Draft EIR, the SAFER Bay Project consists of a series of structures and engineered and natural features that will extend through several jurisdictions and require approvals by multiple agencies, depending on the specific reach. We understand that while the JPA will be certifying the EIR, each city, including the City of East Palo Alto, will be primarily responsible for approving the shoreline protection through their jurisdiction. The CEQA Guidelines encourage the preparation of a program EIR when there are a series of actions that can be characterized as one large project and are related due to factors like geography or logical parts of contemplated actions. (CEQA Guidelines § 15168(a).) One advantage of a programmatic approach is that it better allows consideration of broad policies and mitigation measures early on at a point when there is greater flexibility. (CEQA Guidelines § 15168(b).) That is, program EIRs are useful for analyzing connected actions at an early stage, before design details are known. Subsequently, when a specific project is proposed for a portion of the broader program, the program EIR can be used to approve the specific design, if the project is "within the scope" of the program EIR. If the subsequent project is not "within the scope," additional environmental review may be needed, but it is focused only on new effects not previously considered. (CEQA Guidelines § 15168(d).)[1]

We support the JPA's use of this type of CEQA document as it will allow flexibility as specific shoreline projects are proposed for approval. We encourage the JPA to clarify how this program EIR may be used to support the subsequent approval of portions of this broader program, including the concept of whether a project is "within the scope" of this EIR, and if not, how additional environmental review would be conducted. The SAFER Bay Project is critical to the

[1] We note that even when there is project level review, CEQA does not constrain future changes, but rather it requires updated analysis of any changes, which is often accomplished through an Addendum.

future of the region, and we appreciate the JPA's recognition that the current 10% level of design is not sufficient for a "project" level review and that further refinement will be needed.

Against this backdrop, Sycamore has advanced the design of site-specific shoreline protection in the application that it has submitted for the EPA Waterfront Project. This incorporates robust shoreline protection measures, including both raising the grade of the entire project site and utilizing deep soil mixing, or DSM, along the perimeter. The approach has sought to minimize impacts on the wetlands and to achieve all the objectives of the SAFER Bay Project. We look forward to continuing to work collaboratively with the JPA and the City to implement its project in a way that can achieve Sycamore's goals for the EPA Waterfront Project and the objectives for the SAFER Bay Project identified in the DEIR. 3 cont.

III. Takings Considerations Where DSM Provides Equivalent Protection

The Draft EIR suggests that, where the SAFER Bay Project levee is proposed on private land, landowners will be required to dedicate land and provide easements. However, constitutional takings law requires that there is a "nexus" and "rough proportionality" between the impact of a project and the dedication being required. If such constitutional tests are not met, any dedication requirement would be a regulatory taking and just compensation must be paid. For reasons described below, we do not believe these standards can be met if dedication of land for an earthen levee is required for the EPA Waterfront Project, rather than the approach proposed as part of the EPA Waterfront Project (raising of the grade with a DSM structure and berms along the perimeter). There is also no nexus where the levee is proposed on portions of Sycamore's property along the neighboring property line, as there is no connection to a development project. 4

The SAFER Bay Project proposes a levee that would bisect much of Sycamore's property. The levee structure itself would take up approximately 5 acres of land. But the levee has a greater impact since areas within 50 feet of the levee are not developable. With that buffer included, the area directly impacted by the levee increases to nearly 8 acres. Further, the proposed alignment of the levee will effectively turn land on the Bay side into tidal marshes initially, and then eventually into the Bay itself. Including the land to the east of the levee increases the total area directly impacted to approximately 19.5 acres.

We note that the Notice of Preparation suggested an alternative alignment along the existing levee where the Bay Trail is located, which would be entirely off Sycamore's property. As described in the alternatives analysis, the only reason that was rejected (and not actually studied) is that it would not meet the habitat enhancement objective. That is, the levee alignment is proposed on Sycamore's property not because it is necessary to protect the project or the broader community from sea level rise impacts, but rather to enhance habitat. Habitat enhancement is a laudable goal, but it is unrelated to impacts of the development project. 5

Sycamore's proposed EPA Waterfront Project incorporates robust shoreline protection measures, including both raising the grade of the entire Project site and utilizing DSM along the perimeter. While the purpose of the proposed earthen levee in the DEIR is to provide shoreline protection, because the EPA Waterfront Project addresses this same impact, the levee is not needed for the Project. Because the EPA Waterfront Project's shoreline protection could achieve the same outcome as the JPA's proposed design, there is no "nexus" between the EPA Waterfront Project and any requirement to dedicate land for an earthen levee. That is, the EPA Waterfront Project already addresses the issue, so requiring dedication of private land to build a different structure would not mitigate a project-caused impact. 6

The DSM approach will avoid conflicts with the proposed development footprint. As shown in the Draft EIR's program-level levee cross-sections (Figure 2-11), an earthen levee would intrude into planned building areas on the 45-degree structural influence zone supporting those foundations. Based on standard geotechnical design constraints applicable to such embankments, that footprint would encroach into planned building areas or their associated structural setback zones.

Finally, the portions of the levee proposed to extend north and east of the EPA Waterfront Project along the property line are not required to protect the Project and only provide broader benefits to the general public. That is, there is no nexus between the EPA Waterfront Project and portions of the levee that are designed to protect neighboring properties. Without such a nexus, any dedication requirement would be a taking.

IV. Conclusion

We appreciate that the JPA prepared the DEIR at a programmatic level, including for the North of Bay Road reach, as that approach acknowledges that the design is not yet final, which allows for flexibility. Specifically, we believe this approach will allow refinements as projects come forward, such as using DSM for the EPA Waterfront Project. For purposes of clarity, we recommend that the Draft EIR discuss how, under CEQA Guideline section 15168, a program EIR can be used for approval of later, project-specific approvals, including that the design may continue to evolve, and what the environmental review will look like when future projects both meet and do not meet the "within the scope" test. 7

While we appreciate the program approach to the CEQA analysis, we are concerned with the DEIR's description about future dedication and request that the document explain when dedication will be required.

We look forward to continuing to work with the JPA and the City of East Palo Alto to ensuring that both the EPA Waterfront Project and broader community are protected from current flooding and future sea level rise impacts. The SAFER Bay Project is critical for the region and we look forward

to collaborating on an approach that both protects the community and is consistent with private development.

Very truly yours,

Miles Imwalle

cc: Mia Bernardino
Susan Smartt
Brad Powell
Bryan Tollin

Anonymous1

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Mentira Date 12/15/25

Resident of which city (if applicable) Ave aya mus

Organization (if applicable) Juntos Cema este y mes

Regarding Document Section Información para las comunidades

Comments:

We need more meetings like these and more information for the communities. 1

Anonymous2

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name _____ Date _____

Resident of which city (if applicable) _____

Organization (if applicable) _____

Regarding Document Section _____

Comments:

84 is primarily a commuter/pass through route, how will major employers be required to update their TDM plans for let years, to reduce traffic impacts. 1

Anonymous3

SAN FRANCISQUITO CREEK JOINT POWERS AUTHORITY

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name anonymous Date 12/17

Resident of which city (if applicable) Menlo Park

Organization (if applicable) n/a

Regarding Document Section Aesthetics + air quality

Comments:

Will there be a process of adding vegetation (california native) + shrubs + trees to assist with air quality. 1

Second how or in what way will the look of the leeves be addressed 2

Anonymous4

Tarjeta de comentarios

Proyecto SAFER Bay – Borrador del Informe de Impacto Ambiental

Nombre _____ Fecha _____

Residente de qué ciudad (si corresponde) _____

Organización (si corresponde) _____

Sección del documento _____

Comentarios:

SUPONGAMOS Q EL AGUA PASA POR ENCIMA I DE LOS DIQUES Y DE REGRESO LLEVA MENOS FUERSA NO VAA PODER REGRESAR.

QUE VAA PASAR CON EL AGUA Q NO PUEDE REGRESAR

Let's assume that the water passes over the levees, and on the way back it carries less force and will not be able to return. What will happen to the water that cannot return?	1

Alberto

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Alberto Date 12/7/25

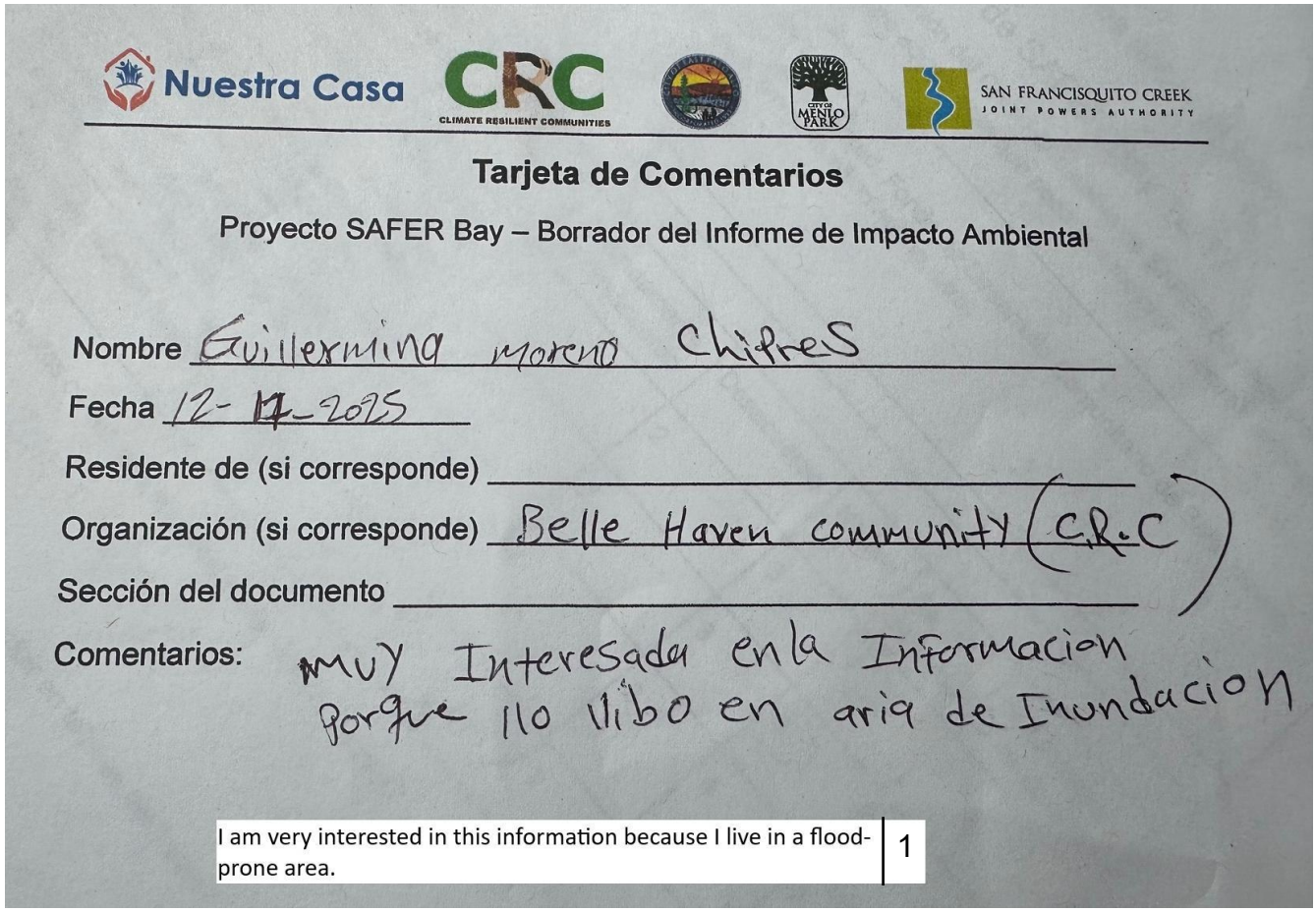
Resident of which city (if applicable) Menlo Park

Organization (if applicable) _____

Regarding Document Section Safer Bay

Comments:

Please do not pick the developer who made the Belle Haven Community Center. 1



Nuestra Casa | CRC CLIMATE RESILIENT COMMUNITIES | MENLO PARK | SAN FRANCISQUITO CREEK JOINT POWERS AUTHORITY

Tarjeta de Comentarios

Proyecto SAFER Bay – Borrador del Informe de Impacto Ambiental

Nombre Guillermina moreno Chipres

Fecha 12-14-2025

Residente de (si corresponde) _____

Organización (si corresponde) Belle Haven community (C.R.C)

Sección del documento _____

Comentarios: muy Interesada en la Informacion porque no vivo en aria de Inundacion

I am very interested in this information because I live in a flood-prone area.	1

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Steven Combs Jr. Date 12/15/25

Resident of which city (if applicable) Menlo Park

Organization (if applicable) _____

Regarding Document Section _____

Comments: (1) How many inches has the Bay risen in the Last 10 years (2) IN Menlo Park most of the Bay is bordered by commercial property What are the property owners responsibility

1

2

5 pm
Friday
Jan. 23

Combs

Tarjeta de comentarios

Proyecto SAFER Bay – Borrador del Informe de Impacto Ambiental

Nombre _____ Fecha _____

Residente de qué ciudad (si corresponde) _____

Organización (si corresponde) _____

Sección del documento _____

Comentarios:

(3) What are the proposed heights of the Levees along Hwy 84 ? 3

Escobedo

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Sonia Escobedo Date 12/15/25

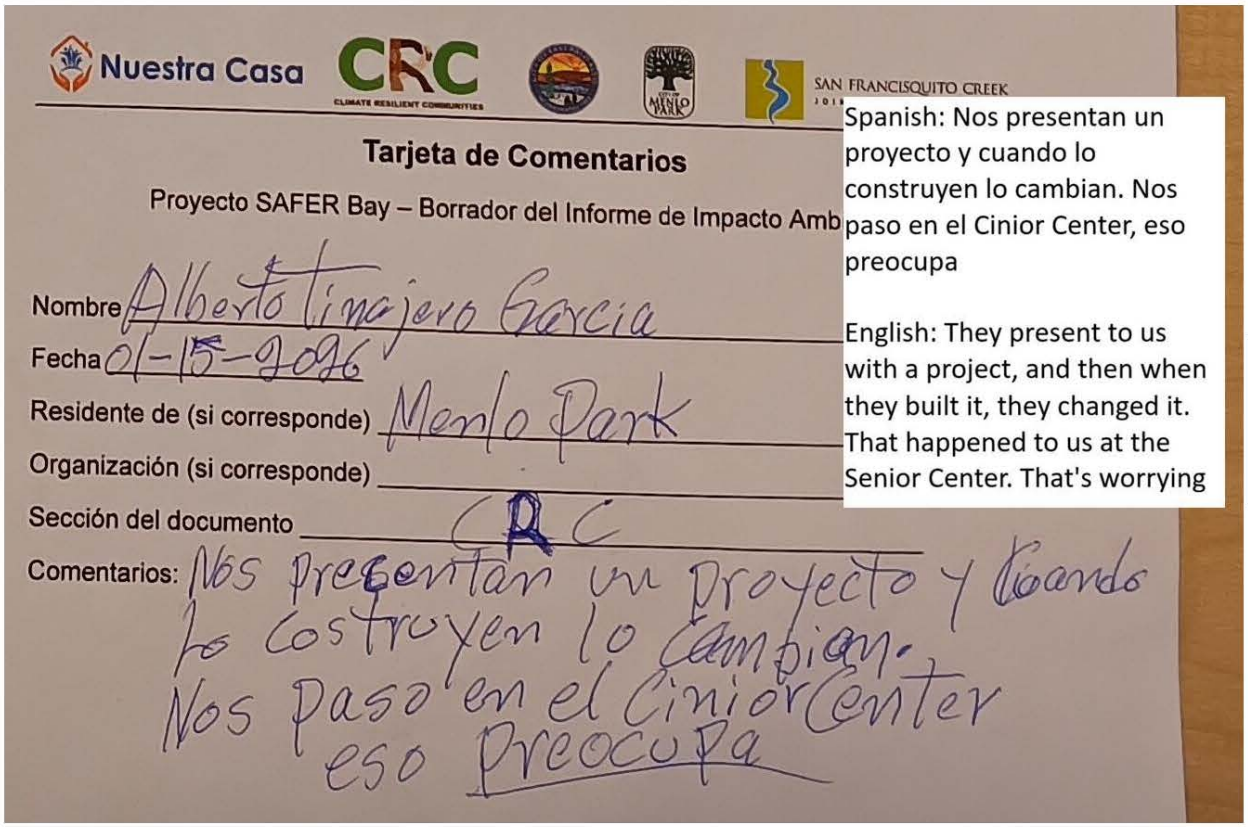
Resident of which city (if applicable) EPA

Organization (if applicable) _____

Regarding Document Section _____

Comments:

As temperatures rise causing sea levels ~~to~~ rise. Will the levee need to be modified in the future to be able to adapt to these changes? 1



Nuestra Casa

CRC CLIMATE RESILIENT COMMUNITIES

SAN FRANCISQUITO CREEK

Tarjeta de Comentarios

Proyecto SAFER Bay – Borrador del Informe de Impacto Amb

Nombre Alberto Linajero Garcia

Fecha 01-15-2016

Residente de (si corresponde) Menlo Park

Organización (si corresponde) _____

Sección del documento CRC

Comentarios: Nos presentan un proyecto y cuando lo construyen lo cambian. Nos paso en el Cinior Center eso preocupa

Spanish: Nos presentan un proyecto y cuando lo construyen lo cambian. Nos paso en el Cinior Center, eso preocupa

English: They present to us with a project, and then when they built it, they changed it. That happened to us at the Senior Center. That's worrying

1

Gomez-Ochoa

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Diana Gomez-Ochoa Date 12/15/25

Resident of which city (if applicable) East Palo Alto

Organization (if applicable) _____

Regarding Document Section Biological Impacts

Comments:

An increase in dust from construction may worsen asthma rates for children in EPA who already are vulnerable to asthma attacks. How will dust be mitigated around schools ~~[illegible]~~ and public parks & to prevent exacerbating health impacts for those with existing respiratory conditions? 1

SAN FRANCISQUITO CREEK JOINT POWERS AUTHORITY

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Maria Gonzalez Date 12-15-25

Resident of which city (if applicable) East Palo Alto

Organization (if applicable) _____

Regarding Document Section _____

Comments: Me preocupa el trafico ya que vivo en una Calle cerrada y la unica salida y entrada es por University Av. esto ocasionara un gran caos me gustaria consideren las horas del trafico y traten de en esas horas mantengan libre el paso.

I'm worried about the traffic because I live on a dead-end street and the only exit and entrance is through University. This will cause a lot of chaos. I would like you to consider the traffic hours and try to keep the passage clear during those times. 1

Nuestra Casa CRC CLIMATE RESILIENT COMMUNITIES SAN FRANCISQUITO CREEK JOINT POWERS AUTHORITY

Comment Card

Goodwin

SAFER Bay Project – Draft Environmental Impact Report

Name Danita Goodwin

Date 12/17/25

Resident of (if applicable) Menlo Park

Organization (if applicable) N/A

Regarding Document Section

Comment(s): What if any financial impact will this project have on the residents. 1

SAN FRANCISQUITO CREEK
JOINT POWERS AUTHORITY

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name John Harville Date 12-17-25

Resident of which city (if applicable) Menlo Park

Organization (if applicable) _____

Regarding Document Section _____

Comments: What hours would the project will be done ? 1

From: Jerry Hearn <hearnbo@redshift.com>
Sent: Tuesday, December 16, 2025 7:54 PM
To: Tess Byler <tbyler@sfcjpa.org>
Subject: EIR correction

Hi Tess,
Take a look on page 80, figure 2-9. I think the caption under View A should read: Drainage channel west of Bay Trail facing northwest. Nice job last night. See you tomorrow in Belle Haven. 1

Jerry

Nuestra Casa CRC CLIMATE RESILIENT COMMUNITIES SAN FRANCISQUITO CREEK JOINT POWERS AUTHORITY

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Eduardo L. Hernandez

Date 1/15/26

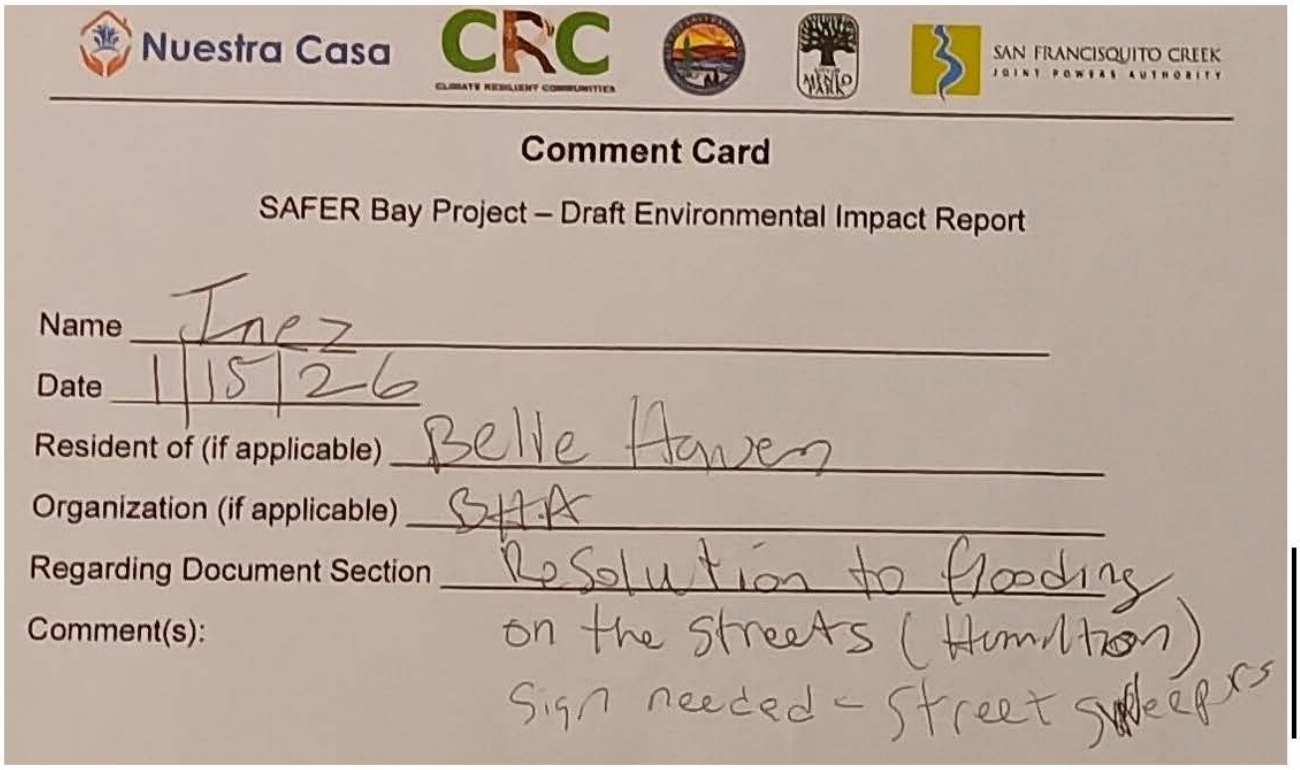
Resident of (if applicable) Menlo Park (District 1)

Organization (if applicable) _____

Regarding Document Section _____

Comment(s): Please protect the bay and animals while building the levees 1

- Please protect our trails. 2
- Please store soil. 3



Nuestra Casa

CRC
CLIMATE RESILIENT COMMUNITIES

SAN FRANCISQUITO CREEK
JOINT POWERS AUTHORITY

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Inez

Date 1/15/26

Resident of (if applicable) Belle Haven

Organization (if applicable) ~~BHA~~

Regarding Document Section Resolution to flooding

Comment(s): on the streets (Hamilton)
Sign needed - Street sweepers

1

SAN FRANCISQUITO CREEK
JOINT POWERS AUTHORITY

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Sharon Jenkins Date 12/17/25

Resident of which city (if applicable) Menlo Park

Organization (if applicable) _____

Regarding Document Section Green Section

Comments: I believe this is a great Plan and I hope it Starts sooner than later 1

Tarjeta de comentarios

Proyecto SAFER Bay – Borrador del Informe de Impacto Ambiental

Nombre Evelia Jimenez Fecha _____

Residente de qué ciudad (si corresponde) East Palo Alto

Organización (si corresponde) Nuestra Casa

Sección del documento _____

Comentarios:

I live in ~~Vivo en~~ Bay Oak Apts. and the city is giving us tickets on a daily basis. They have painted a red zone, ~~they've also installed~~ they want to install parking meters and ~~now we are being~~ charged for parking. We don't want that.

1

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name _____ Date _____

Resident of which city (if applicable) _____

Organization (if applicable) _____

Regarding Document Section _____

Comments:

There used to be a vacant lot without a red zone. But now they've painted a red zone even though nothing is there. This is just to be able to fine us. That's not right.

1 cont.

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Robert Jones Date 12-15-25

Resident of which city (if applicable) East Palo Alto

Organization (if applicable) r EPAct

Regarding Document Section _____

Comments:

1. Evacuation Time from the Time water goes t The levee, What system will be in place once project is completed - If at all! 1

2.

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Robert Jones Date 12/15/21

Resident of which city (if applicable) East Palo Alto

Organization (if applicable) rEPAct

Regarding Document Section _____

Comments:

How will the habitat improvements improved the flood 2
project, & Residential homes along the levees?

Julia

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Julia Date _____

Resident of which city (if applicable) 15 Almd 94303

Organization (if applicable) _____

Regarding Document Section _____

Comments: Como evacuar cuando se inunde

How to evacuate when there is a flood | 1

Kao

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Christopher Kao Date 12/15/25

Resident of which city (if applicable) East Palo Alto

Organization (if applicable) _____

Regarding Document Section _____

Comments:

I would like to see Pond R3 restored back to marshland after the Bayfront expressway reach is completed. I would like to see the westernmost reach include a trail, aligning with Redwood City Bay Trail improvements; draft EIR did not specify whether that reach will have a trail. Draft EIR is missing some projects; junk auto yard is zoned to be a park from Ravenswood Business District special plan. There is also a proposed development at 2020 Bay road. Does all land on land side of levee become eligible to be filled in and developed? 1 2 3 4

Nuestra Casa | CRC CLIMATE RESILIENT COMMUNITIES | SAN FRANCISQUITO CREEK JOINT POWERS AUTHORITY

Tarjeta de Comentarios

Proyecto SAFER Bay – Borrador del Informe de Impacto Ambiental

Nombre Joey Lopez

Fecha 01/07/2026

Residente de (si corresponde) South San Francisco

Organización (si corresponde) Canopy for Trees, Palo Alto

Sección del documento Draft Environmental Impact Report

Comentarios:

I work in East Palo Alto and it is super important to me that the residents of East Palo Alto are protected for generations to come, alongside their sources of energy. It is also extremely important to protect marshlands as buffers from floods. 1

From: Tess Byler <tbyler@sfcjpa.org>
Sent: Friday, January 23, 2026 4:47 PM
To:
Subject: Fw: New form submission assigned to you: SAFER Bay Project

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From: Streamline <noreply@specialdistrict.org>
Sent: Friday, January 23, 2026 4:13:54 PM
To: Tess Byler <tbyler@sfcjpa.org>
Subject: New form submission assigned to you: SAFER Bay Project

SAN FRANCISQU
JOINT POWERS

SAFER Bay Project

Name:	Gwendolyn Poston
Email:	gwenposton@yahoo.com
General Comments:	Re: Public Concerns Regarding San Francisquito Creek JPA Flood Protection Projects Dear Members of the San Francisquito Creek Joint Powers Authority, I am a resident of one of the communities affected by the San Francisquito Creek flood protection projects in East Palo Alto, Palo Alto, and Menlo Park, and I am writing to formally express my concerns regarding the SAFER Bay Project. My foremost concern is the quality and long-term integrity of construction. Flood-control infrastructure must be designed and built to withstand extreme weather events, seismic activity, and future climate impacts. History has shown—most notably during Hurricane Katrina—that failures in design, construction, or oversight can lead to catastrophic loss of property, environmental damage, and risk to human life. I urge the Authority to ensure that all projects meet or exceed the highest engineering, safety, and

1

	inspection standards, with full transparency and accountability. Equally important is ongoing maintenance. Flood protection systems are only as effective as their long-term upkeep. I would like clear information on maintenance responsibilities, funding mechanisms, inspection schedules, and contingency plans should structural weaknesses or failures be identified in the future. I am also deeply concerned about the financial impacts to residents if flooding persists or worsens. These include property damage, rising insurance premiums or loss of coverage, potential special assessments or taxes, and reduced property values. Residents need assurance that these projects will meaningfully reduce flood risk rather than shift or exacerbate it. Additionally, standing or slow-moving water raises legitimate concerns about waterborne diseases and public health risks, particularly for nearby residents, children, seniors, and vulnerable populations. Clear mitigation and monitoring plans should be publicly available. I am concerned about the potential damage to or loss of existing trails, which are vital community resources for recreation, transportation, and mental well-being. Any temporary or permanent trail impacts should be minimized, clearly communicated, and fully mitigated. Finally, I ask that the Authority carefully consider the protection of wildlife habitats and native species. The creek and surrounding areas support important ecosystems that must not be irreversibly damaged in the name of flood control. Environmental protections should be proactive, not reactive. I respectfully request that these concerns be fully addressed as part of project planning, implementation, and long-term management, and that residents be meaningfully included in decision-making processes. Our safety, health, environment, and financial stability depend on it. Thank you for your consideration and for your service to our communities. Sincerely, Gwendolyn Poston
Chapter 1:	
Comment(s):	
Chapter 2:	
Comment(s):	
Chapter 3:	
Comment(s):	
Chapter 4:	

1 cont.

2

3

4

5

6

SAN FRANCISQUITO CREEK JOINT POWERS AUTHORITY

Tarjeta de comentarios

Proyecto SAFER Bay – Borrador del Informe de Impacto Ambiental

Nombre Guillermina Quiroz Fecha 15-DEC.25

Residente de qué ciudad (si corresponde) _____

Organización (si corresponde) NUESTRA CASA

Sección del documento _____

Comentarios:

ME GUSTO MUCHO
MUY BIEN LA

I like it a lot. Very good. 1

Tarjeta de comentarios

Proyecto SAFER Bay – Borrador del Informe de Impacto Ambiental

Nombre GUILLERMINA QUIROZ Fecha DIC. 17-25

Residente de qué ciudad (si corresponde) E. PALO ALTO

Organización (si corresponde) _____

Sección del documento _____

Comentarios: SABIENDO LA INDOLE DEL PROBLEMA
Q SENTIMOS Q FALTA MUCHO PERO EL
TIEMPO SE PASA MUY RAPIDO

Knowing the nature of the problem, we feel that there is still a long way to go, but time passes very quickly. 1

Robertson

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name LAVONNE ROBERTSON Date 12-17-25

Resident of which city (if applicable) MENLO PARK

Organization (if applicable) _____

Regarding Document Section _____

Comments:

I like to know more about the flood zone. 1

I would also like to know how long the project would take. 2

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Vicky Robledo Date 12/17/25

Resident of which city (if applicable) Menlo Park, Belle Haven

Organization (if applicable) ~~the~~

Regarding Document Section _____

Comments:

What will the height of these levees ?

1

From: Tess Byler <tbyler@sfcjpa.org>
Sent: Wednesday, January 21, 2026 8:04 PM
To:
Subject: Fwd: New form submission assigned to you: SAFER Bay Project

Tess Byler, PG, CHG
sfcjpa.org

Begin forwarded message:

From: Streamline <noreply@specialdistrict.org>
Date: January 21, 2026 at 6:54:27 PM PST
To: Tess Byler <tbyler@sfcjpa.org>
Subject: New form submission assigned to you: SAFER Bay Project

SAN FRANCISQU
JOINT POWERS

SAFER Bay Project

Name:	Vicky Robledo
Email:	vbetyavr@gmail.com
General Comments:	I'm in support of what can help our community. Stay safe. However, I do not want to see my taxes go up, nor do I want a wall that's tall enough that it blocks the view of the bay. We should look at options when it comes to who is hired and to look at ways to keep cost down. Utilize city and county engineers. Pay for additional contractors if you have in-house staff. Isn't that what they're paid for ? Utilize employees to do whatever surveying, engineering etc. rather than to hire additional contractors.
Chapter 1:	
Comment(s):	

1

Rohr.J1

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name James Rohr Date 12-17-25

Resident of which city (if applicable) Menlo Park

Organization (if applicable) _____

Regarding Document Section _____

Comments: I would like funding to include asking PG&E + META to pay for the protection, that will be needed for their property. 1

From: Streamline <noreply@specialdistrict.org>
Sent: Friday, January 23, 2026 12:28 PM
To: Tess Byler <tbyler@sfcjpa.org>
Subject: New form submission assigned to you: SAFER Bay Project

SAN FRANCISQU
JOINT POWERS

SAFER Bay Project

	James Rohr
	jamesrohr@mac.com
General Comments:	I believe Menlo Park should proceed with the Safer Bay Project, as it directly addresses the needs of residents living near the bay and aligns with the community's commitment to resilience against rising sea levels and coastal flooding. Given that Meta operates in the same high-risk zone, their involvement is critical to ensuring the project's success and they should supply any funds that are being withheld by the federal government due to their direct benefit from the project. This partnership not only reflects a shared responsibility for protecting the community but also underscores the importance of integrating corporate and municipal efforts to safeguard lives, infrastructure, and the region's future.

1

From: Streamline <noreply@specialdistrict.org>
Sent: Friday, January 23, 2026 12:24 PM
To: Tess Byler <tbyler@sfcjpa.org>
Subject: New form submission assigned to you: SAFER Bay Project

SAN FRANCISQU
JOINT POWERS

SAFER Bay Project

	Meredith Rohr
	meredith.rohr@gmail.com
General Comments:	I am commenting as a Menlo Park resident and my comments are as follows: The City of Menlo Park should start looking for places to stockpile/store soil ASAP. Views and trail quality should be considered in the design. Glad to see that accessibility is included in the EIR. Managing traffic concerns in the area should be a priority. To the extent possible, Meta, PG&E, and other impacted businesses should offer “work from home” option for workers during peak construction to reduce traffic congestion in residential areas.

1
2
3
4

Sameron

Tarjeta de comentarios

Proyecto SAFER Bay – Borrador del Informe de Impacto Ambiental

Nombre Figueria Miranda Sameron Fecha _____

Residente de qué ciudad (si corresponde) East palo Alto 25 Newell Road

Organización (si corresponde) Nuestra Casa

Sección del documento _____

Comentarios: Quiero Aprender mas Sobre las inundaciones de mi Comunidad

I want to learn more about flooding in my community. 1

Sandra

Tarjeta de comentarios

Proyecto SAFER Bay – Borrador del Informe de Impacto Ambiental

Nombre Sandra Fecha 17-12-25

Residente de qué ciudad (si corresponde) Menlo Park

Organización (si corresponde) _____

Sección del documento _____

Comentarios:

Si me preocupa y pues ya es mucho tiempo que dicen lo lo van a hacer ese proyeto tengo miedo porque vivo en esa parte que se puede inundar.

Yes, I'm worried, and it's been a long time since they said they were going to do this project. I'm scared because I live in that area that could be flooded. 1

SAN FRANCISQUITO CREEK JOINT POWERS AUTHORITY

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Jessica Santillan Date 12/15/25

Resident of which city (if applicable) East palo Alto

Organization (if applicable) ~~None~~ N/A.

Regarding Document Section _____

Comments:

I live on ~~Sacramento~~ Sacramento St where we have a dead end
I am worried about the traffic impacts that will affect us. 1

SAN FRANCISQUITO CREEK JOINT POWERS AUTHORITY

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Victor Santillan Date 12-15-25

Resident of which city (if applicable) East Palo Alto

Organization (if applicable) _____

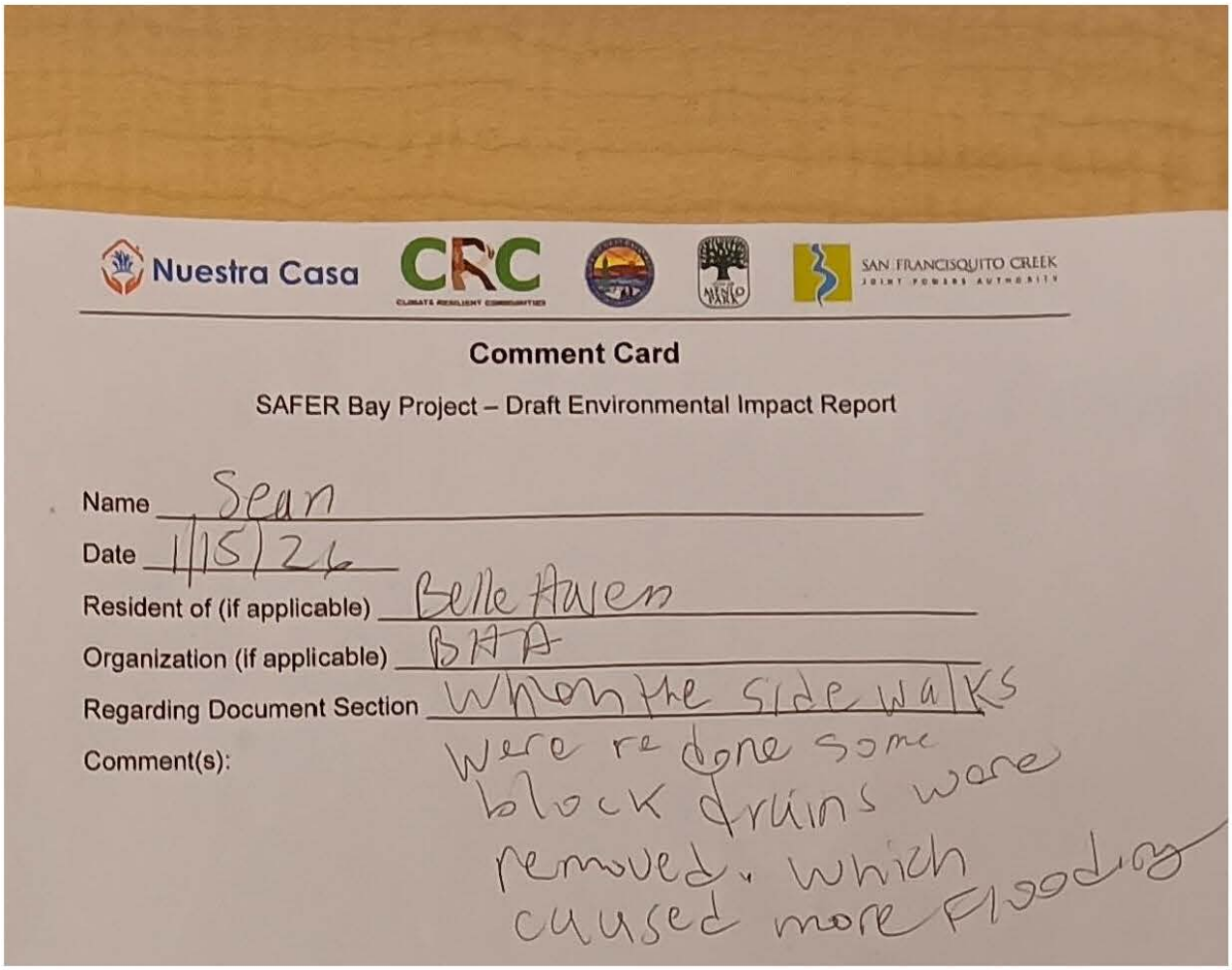
Regarding Document Section _____

Comments:

- How would this project will effect traffic in the city? 1
- For this project, are you using eco friedly materials? 2

There's a lot of contamination on the city already.

Sean



Nuestra Casa CRC SAN FRANCISQUITO CREEK JOINT POWERS AUTHORITY

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Sean

Date 1/15/26

Resident of (if applicable) Belle Haven

Organization (if applicable) BHA

Regarding Document Section When the sidewalks

Comment(s): were re done some block drains were removed. which caused more flooding

1

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Alicia Smith Date 12-15-2025

Resident of which city (if applicable) East Palo Alto

Organization (if applicable) SMCCP/ Church Of God

Regarding Document Section _____

Comments: Interested in the plans for when the flood comes how will the residents be protected 1

Solis

Tarjeta de comentarios

Proyecto SAFER Bay – Borrador del Informe de Impacto Ambiental

Nombre Claudia Solis Fecha 12/17/2025

Residente de qué ciudad (si corresponde) Menlo park

Organización (si corresponde) _____

Sección del documento _____

Comentarios:

Hamilton Park development 2007 exempt 19 homes from original development of 44 homes changed to 11.1 Feet 7.9 what guantees this will not change 1

Sot

Tarjeta de comentarios

Proyecto SAFER Bay – Borrador del Informe de Impacto Ambiental

Nombre Jesus Sot Fecha 12/17/2025

Residente de qué ciudad (si corresponde) Menlo Park Belle haven

Organización (si corresponde) _____

Sección del documento _____

Comentarios: I will lick to see The Projet To start earlier then 2029 if is Posible. Thank you.

1

Tarjeta de comentarios

Proyecto SAFER Bay – Borrador del Informe de Impacto Ambiental

Nombre Lucía Soto Fecha 12/17/2025

Residente de qué ciudad (si corresponde) Menlo Park

Organización (si corresponde) _____

Sección del documento _____

Gracias

Comentarios: Megustaría que ete proyecto se isiera mas rapido. poque la aseguransa paralas propiedades es muy cara. Y con este proyecto se beneficiaria to da la comunidad incluendo los negocios. Emos benido apoyando este proyecto por mucho tiempo. Quisiera que este proyecto se aga ya.

I would like this project to be done very quickly, because insurance for properties is very expensive, and with this project the whole community would benefit, including businesses. We have been supporting this project for a long time. I would like this project to happen now. | 1

Sykes

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name John Sykes Date Dec 17, 2025

Resident of which city (if applicable) Menlo Park

Organization (if applicable) _____

Regarding Document Section Community Mtg on 12/17

Comments: Concerned about the loss of Ravenswood Trail resource – would love to have the existing levee be engineered to allow interior area to be restored while keeping recreational (levee top...) trail. 1

1660 Bay Rd

Trujillo

Tarjeta de comentarios

Proyecto SAFER Bay – Borrador del Informe de Impacto Ambiental

Nombre Rosario Trujillo Fecha 12-17-25

Residente de qué ciudad (si corresponde) EPA

Organización (si corresponde) _____

Sección del documento _____

Comentarios:

esta muy bien a poyar alas personas que ancido ~~este~~ afectada por SanFrancisquito con todo este proyecto que se va aser y que no seamos mas los afectados

It's great to support the people who have been affected by San Francisquito with this whole project that's going to be carried out, so that we don't become the ones affected next. 1

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Inez Watkins Date 12/17/25

Resident of which city (if applicable) Menlo Park

Organization (if applicable) _____

Regarding Document Section _____

Comments:

How will the City support residents with Influx of Rodent during this time. 1

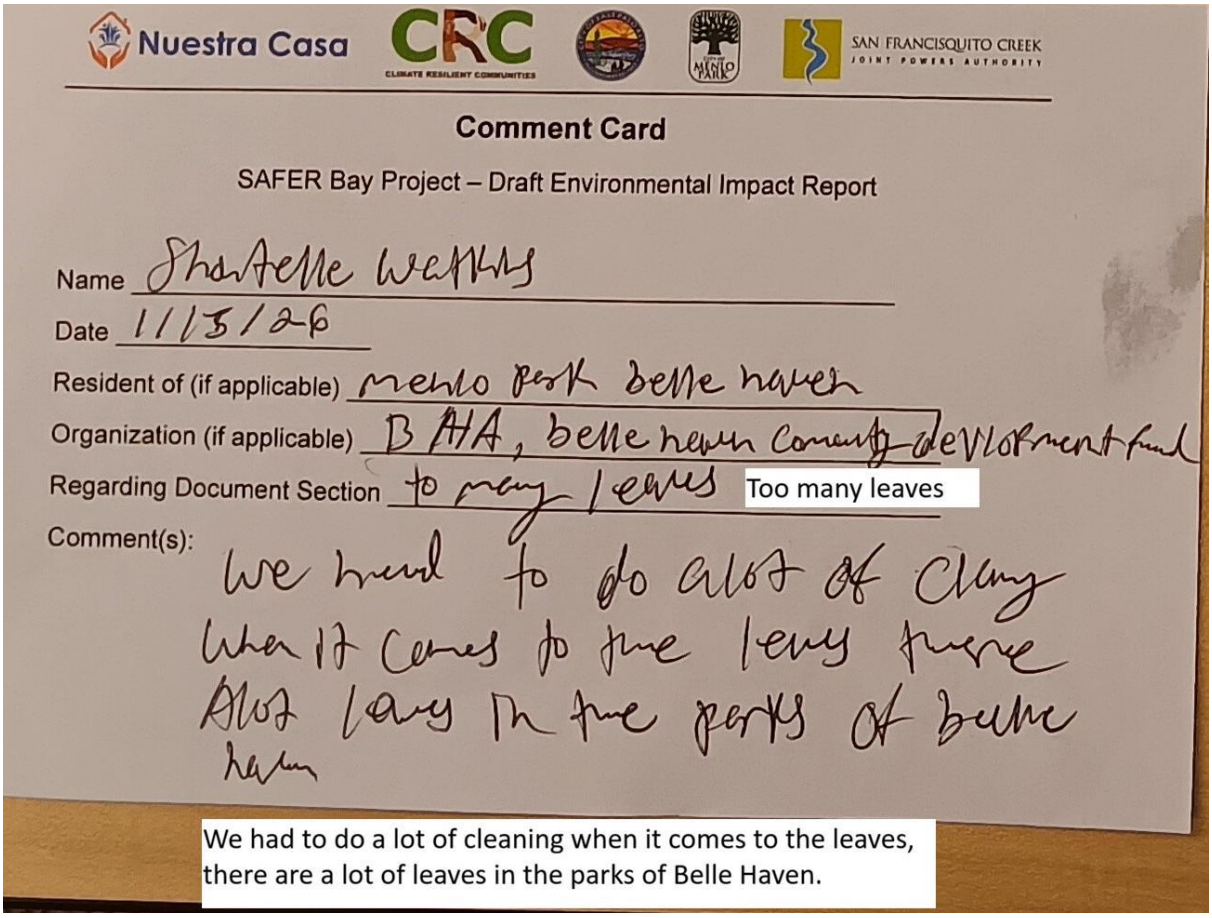
From: Streamline <noreply@specialdistrict.org>
Sent: Friday, January 23, 2026 11:38 AM
To: Tess Byler <tbyler@sfcjpa.org>
Subject: New form submission assigned to you: SAFER Bay Project

SAN FRANCISQU
JOINT POWERS

SAFER Bay Project

	Inez Watkins
	inez3867@gmail.com
General Comments:	Why have street drains been removed from certain block when the side walks were redone. Which has contributed to more flooding.

1



Nuestra Casa | CRC Climate Resilient Communities | San Francisquito Creek Joint Powers Authority

Comment Card

SAFER Bay Project – Draft Environmental Impact Report

Name Shantelle Watkins

Date 11/5/26

Resident of (if applicable) menlo park belle haven

Organization (if applicable) BAHA, belle haven community development fund

Regarding Document Section too many leaves

Too many leaves

Comment(s):

we need to do alot of clean when it comes to the leaves there alot leaves in the parks of belle haven

We had to do a lot of cleaning when it comes to the leaves, there are a lot of leaves in the parks of Belle Haven.

1

Public Meeting #1 – East Palo Alto, December 15, 2025

1. Given that the City of Palo Alto owns approximately 15% of the land in East Palo Alto, including a lot of the land for the south of Bay Road reach, do we have any plans currently for still being able to construct the levee despite ownership being tied to a different city?

2. I would like to ensure that we have at least the same number of entrances for East Palo Alto residents to the Bay Trail, especially for the south of Bay Reach, or south of Bay Road Reach. When I was reading the draft EIR, it seemed like some of the entrances would be removed, such as Runnymede, so it would be helpful to clarify some of those details.

3. I have a question about the dust particles, because years and years ago there were some plants, some chemical plants, on Bay Road and I want to know as they start digging, who's testing and how thorough it's going to be.

4. Can we submit our comments online?

5. Are you going to respond back to us if we ask a question?

6. Can we submit comments to the JPA right now?

7. During the evacuation time, once the levee is put up, and I'm making a lot of assumptions with my question, but what I'm looking for is the evacuation time from the time the water crests at the levee, what system will be in place once the project is complete, if at all, that may warn the residents on the other side of the levee that could be impacted? Will there be any warning systems in place for that, or is this going to be eyeballed?

8. If we build this, I've been told by certain folks, that the flood insurance requirement for homeowners will go away or be dramatically reduced. I think if you could talk about this, because this is going to suck. It's going to be absolutely terrible. I live very close to this, and I'm talking about the construction. It's going to be disruptive, loud, annoying. And at the end of it, if we come up with a, I believe the word is FEMA, FEMA accredited levee, then we're no longer in a flood zone or very dramatically lowered. So if you could speak to that a little bit, I think it would give people, especially homeowners, but anybody really, some idea of how this could positively help East Palo Alto?

9. Our house is not exactly in the flood zone. Our issue, and I don't know if this would help us. We get a lot of underground water that comes up and floods our whole bottom of our house. And we need to pump all the water out. I mean, we have, when it rains, we have the pumps going on. We have 3 pumps going on underneath our house, 24 hours a day. And yes, our PG&E is up the roof. Would this help us also, or this has nothing to do with that?

10. I have a question about some of the terms you used. I think 100-year flood and king tide. Maybe you could walk us through what those are and what they would actually look like for us in the flood zone if these events were to happen. Because we've talked about it in a lot of technical terms, and I think it's difficult for some of us to imagine what it would be like to experience it if it happened.

11. Speaking of Cooley Landing, I wondered what would the levees look like there because there's the education center, the picnic tables. I mean, it's a nice spot. I was thinking it's high enough, but then you said the Bay Road would flood. So now I'm worried. What would it look like there?

Public Meeting #2 – Menlo Park, December 17, 2025

1. I have a question that might be in three parts and I don't know if it's in relation to what's going on here now. First thing I want to know, your project, it sounds wonderful, but I live on that Menlo Park borderline and I see your draft shows that whole line across there. So one, how is it going to affect the property, our property, and all the construction and things going on, the air quality and all of that kind of stuff? Because what I'm concerned about is it going to kind of run parallel? Are they going to notify us with everything? Because you don't want another catastrophe like happened in Hayward. Because people weren't aware of certain things that was going on, but then all of a sudden they get this big explosion. You know, I don't know if it was, I'm sure it wasn't done on purpose, but the neighborhood wasn't aware. And I just wanted to know if something, how do we avoid something like that or do we have to be concerned about that? That kind of stuff. Thank you.

2. I would like to know how much the project is estimated to cost.

3. How are we leveraging development impact fees to pay for this project? So for people who don't know development impact fees, it's basically when there's new construction in a city like East Palo Alto and Menlo Park, that new construction project has to pay the city a lot of money sometimes for infrastructure and services that benefit the residents and the city. I know in Menlo Park specifically, there's a lot of development with Independence Drive with Facebook/Meta. So how are we using that money? And because they have to pay impact fees to benefit the residents in Menlo Park. And there's also a lot of development in East Palo Alto, too. So yeah, development impact fees. How are we using that?

4. I live off of Madera. Sort of wanted to piggyback on what she was saying in terms of the cost and also the impact in terms of the massive trucks coming in, the dust, the time frame they're going to be working, like not till 10 o'clock at night, all the bright lights.

5. What is the height of these levees going to be? Are we going to have like, on the freeway, you have a wall that's 10 feet tall. Those levees are not going to be that high, are they?

6. For the questions that aren't being answered tonight, how are they going to get those answers?

7. Recently there was a lot of construction and levees between the Dumbarton Bridge and Bedwell Bayfront Park. How does that relate to what's going on now? And this

seems to duplicate some of that work potentially or obsolesce it and it just got done. This is a new flyway trail that was put in place.

8. When will this project start? How long is it going to take? I really want to know how long is the project going to take, when will it start, so we will be prepared.

9. Once you start this project, you're digging up, you're going to have bad water, concrete, dirt, everything is going to be coming back up. We have the worst air quality over here. The west side of Menlo Park does not have the air quality that we have. So how is this going to affect us? Is there any way you can help us work around this?

10. Having the levees is a good idea with the rising tide. But what I'm concerned about, who's going to be responsible for taking care and inspecting these levees? And how often?

11. Will this allow us to be exempt from requiring flood insurance?

12. I purchased a home in 2007, and they built forty-four homes all those forty-four homes were exempt, but then there was a process in 2019, and they removed nine of those homes. So nine of my neighbors don't have to pay for blood insurance, but the other 39 do. And actually my house is actually higher than the rest. I actually had a meeting with Mr. Holmes and the mayor a while back, Jackie Spears. We've got a lot of people involved, so nobody took any action.

13. I live on Hamilton Street. And I'm one of those neighbors over there who are paying flood insurance right now. So I would love to see the project start as early as possible, not in 2029.

14. I have the same problem. We buy a house in the same area. And I would like, we follow this project and the meetings for a long, probably 10 years or less than 10 years, I don't know. But meetings and follow the project and for me is 6 years more is too long. You guys had to well done this problem as soon as possible.

15. I know you spoke of funding, and as long as the funding is there, if the funding is cut, is that going to be additional property tax for us or what?

16. I don't want to see our communities flooded, obviously. However, we don't have a lot of rain that's contributing to all of this. And at the same time, I think we need to really not rush to have this done when you don't know the impact in terms of your taxes, in terms of the construction, in terms of the traffic. And I think given the monies that we get from Facebook's taxes should also be looked at in contributing to that because the city

gets a tremendous amount of money in the millions from Facebook being in our community. I think we need to really look deeply at this in terms of rushing to do it.

17. Understanding the importance of preserving our marshlands, what alternatives are there to massive walls of levees?

18. You don't want something like to happen that happened in Seattle when they had like 21 days of rain. Okay, the water over there, the water over there is very, very, you know, it could come any time if we have like 20 or 21 days of rain like they had in Seattle. And it could flood over here. Back in the early 90s, they had the flood before they built the wall over in San Francisquito Creek that flooded the area over there, and people have to evacuate their homes. So I think it's a good idea that they do it now, but funding's always a problem.

19. I support the project. I encourage us to really consider the responsibility of PG&E, who has an extraordinary amount of money that they get from the residents, as well as Meta, and that we have the money. There's enough money between those two organizations to complete the project.

20. Can you tell me who the architect, who the general contractor is, if it's been selected already? Who's the developer?

21. 2029 is actually pretty soon if you think about it in construction terms. It's super soon.

22. How should we put the subject line for the e-mail that we'd be writing for public comment?

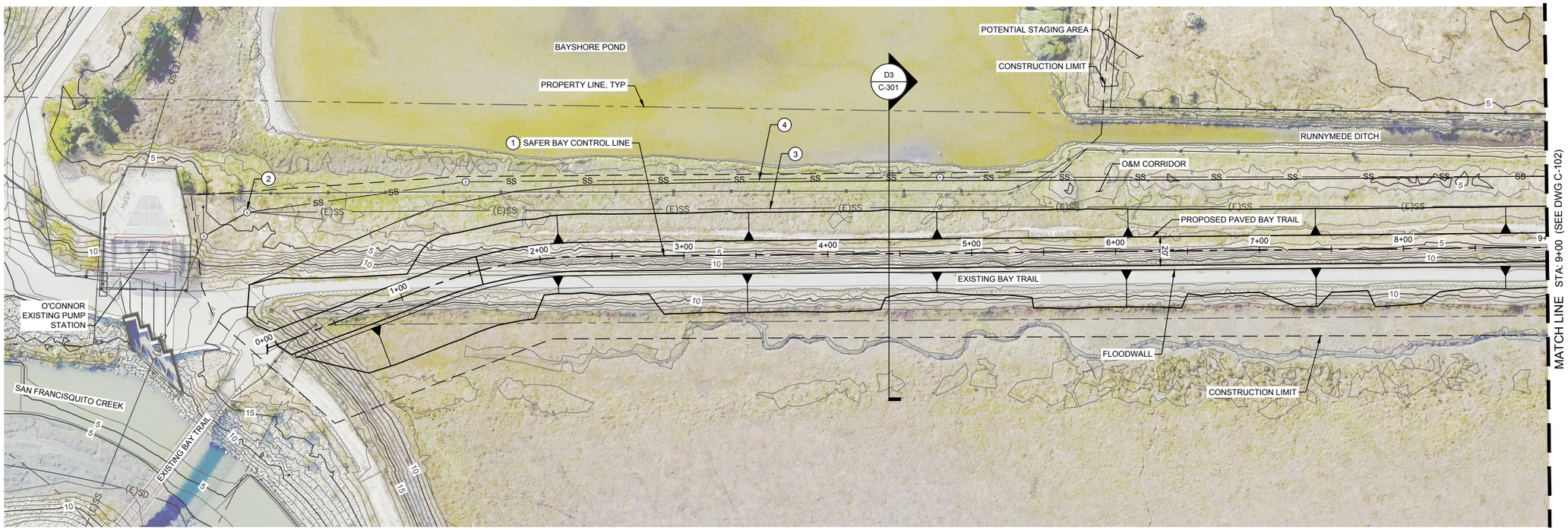
Public Meeting #3 – SFCJPA Board Meeting/Public Hearing, December 18, 2025

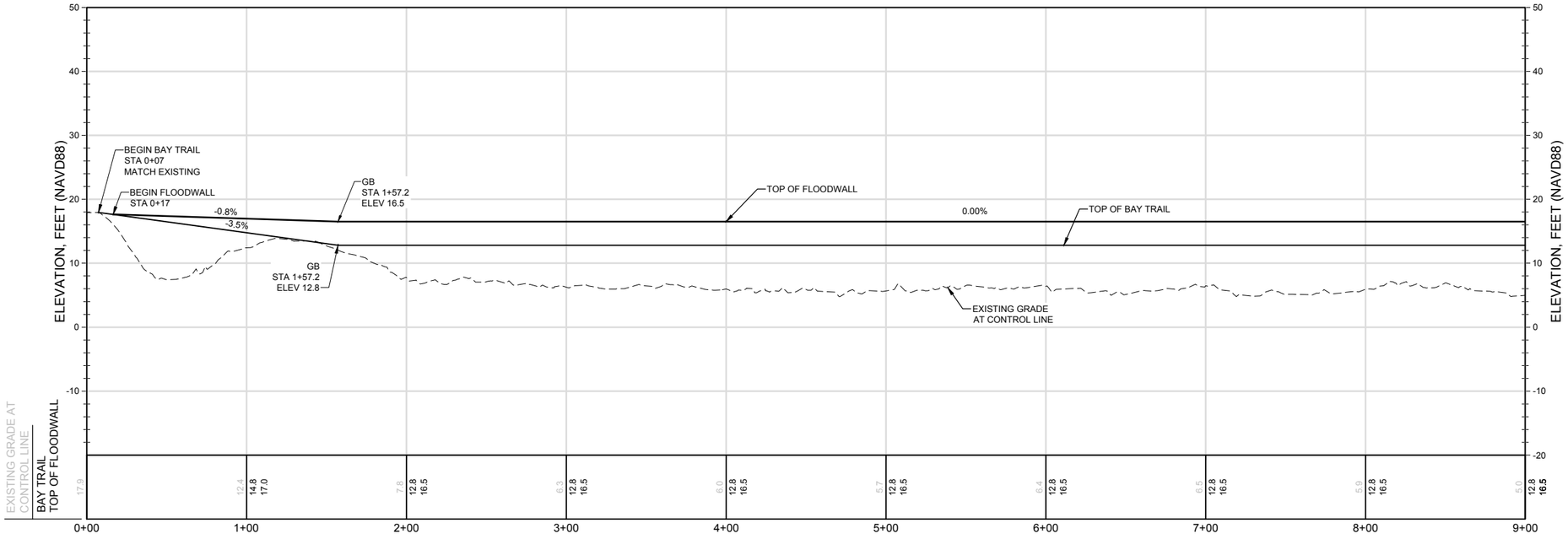
1. “My comments really are not on the EIR itself, but rather on the process. I was able to go to both the meetings that were just recently put on, and I wanted to make a few comments about that and about moving into the future. First of all, I thought they were extraordinarily well done, and kudos to the staff, kudos to ESA, kudos to CRC and Nuestra Casa for providing this wonderful community experience. The turnout, I think last night I think we had 100 people in the room, something like that, and in East Palo Alto, it was probably somewhat similar. I haven’t seen turnouts like that. Obviously, these are the communities that are most affected and are interested, but I think by engaging the NGOs that actually live and work in those communities to reach out to their people and they are really embedded in those communities, that’s what brought those people out. Along with the food, and stuff like that. And there were people there, I talked to a few people afterwards, community members who hadn’t been involved at all and they told me how useful it was and how well it was done. So, I just wanted to say that I think we’re going down the right track in terms of engaging those communities, which is, to me, a very important thing, and I hope it is to you too.”

2. “In the future, what I would like to actually see, and I know it’s costly and I know it consumes staff time, but some more of this as we move along. This is a project that probably is not going to be shovel ready until 2029, 2030, and then it’s another six or seven years. I think it’s really important to keep the community feeling like they are part of that process as we go forward. And it’s not just sending out emails, and it’s not just putting stuff on the website, that’s part of it. But I would encourage the staff to actually consider what I would think of as a communication plan, where at least annually, you had some sort of community gatherings in these two cities to actually update people about what’s going on and have that opportunity to have conversations, which is really the best way to communicate. And I know it’s costly, time-consuming, but I think it’s going to provide a very large upside because there are going to be, as we heard the other night, there are a lot of concerns about the construction process. So just a suggestion, and thanks again very much for staff and ESA for their work.”

Appendix RTC-2

Design Drawing C-101 for South of Bay Road Reach





CONSTRUCTION NOTES:

1. SEE SHEET G-102 FOR SAFER BAY CONTROL LINE PLAN AND TABLE.
2. PROTECT-IN-PLACE EXISTING UTILITY.
3. EXISTING UTILITY TO BE RELOCATED.
4. APPROXIMATE LOCATION OF RELOCATED UTILITY. TO BE DESIGNED UNDER FUTURE CONTRACT.

HORZ SCALE: 1"=40'

VERT SCALE: 1"=10'

30% SUBMITTAL
NOT FOR CONSTRUCTION

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

PRELIMINARY

DESIGNED BY: D. TEAK
DRAWN BY: A. JACKSON
IN CHARGE: E. MESBAH
PROJECT MANAGER: K. JAMESON
DATE: 06/28/2024

SAN FRANCISQUITO CREEK JOINT POWERS AUTHORITY

ACCEPTED BY CITY

PROJECT NAME AND SHEET DESCRIPTION:

SAFER Bay Project
SOUTH OF BAY ROAD
PLAN AND PROFILE
STA 0+00 - 9+00

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO.	SHEET
C-101	XX

USERNAME: CELAYA, DANIEL A. 11/18/2020 10:22 AM
FILENAME: C:\pwworking\west01\d3706195\01C-101

Appendix BIO3-REV

Habitat Restoration
Basis of Design, Revised

Section 3.7.3.4 has been revised to add additional detail on rock placement included in the design to protect the side slopes of nesting bird islands proposed in Pond R1. Figure 8 has been revised to reflect this change. Section 8 has been revised to reflect the inclusion of a slough tidal replacement channel in Moseley Tract marsh. Figure 24 has been added to show the location of this slough tidal replacement channel. Figure 3 has been revised to show restoration/enhancement activities distinguished by the pond in which those activities are occurring, for clarity. Figure 4 has been revised to increase the visibility of high tide refuge berms, for clarity.

H. T. HARVEY & ASSOCIATES
Ecological Consultants
50 years of field notes, exploration, and excellence

SAFER Bay Project
Habitat Restoration Basis of Design

H. T. Harvey Project #3550-05

Prepared for:

San Francisquito Creek Joint Powers Authority

Prepared by:

H. T. Harvey & Associates

In collaboration with
Environmental Science Associates
and **HDR, Inc.**

April 2026

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Section 1.0 Introduction

This report presents the basis of design for restoration of bayshore habitats as part of the project known as Strategy to Advance Flood Protection, Ecosystem Restoration and Recreation along San Francisco Bay project (SAFER Bay or project). It includes preliminary 30% habitat restoration designs along with the basis of design rationale. This report supplements SAFER Bay's 30% and 10% Design Plans (HDR 2024a). The following sections provide an overview of the project and report purpose.

1.1 Project Overview

The SAFER Bay project is being implemented by the San Francisquito Creek Joint Powers Authority (SFCJPA). The project is located along the bayshore and its member cities of East Palo Alto and Menlo Park in San Mateo County, California. The project area extends from San Francisquito Creek at the south end in East Palo Alto to the Menlo Park-Redwood City border at the northwest end (Figure 1).

The project's purpose is to protect people, property and infrastructure from coastal/tidal flooding through engineered and natural features that enhance shoreline ecosystems and improve recreational opportunities. Flood protection will be provided by a combination of floodwalls and earthen levees integrated with ecological restoration such as salt marsh-upland transition zone (T-zone) habitat restoration. The project will reduce the risk of flooding within the cities of East Palo Alto and Menlo Park from San Francisco Bay waters, including consideration of up to 3.5 feet of future sea level rise (SLR), and support the communities' objective to be removed from the Federal Emergency Management Agency (FEMA) floodplain.

A key project objective pertinent to habitat restoration is as follows:

- Enable adaptation to our changing climate by implementing flood protection in ways that sustain and restore tidal marsh habitat while also enhancing and protecting habitat for western snowy plover (*Charadrius nivosus nivosus*; WSP), consistent with the South Bay Salt Pond Restoration Project (SBSPRP) and other restoration efforts.

This report is focused on the restoration design elements incorporated into the project to achieve this objective in a manner sufficient to offset the project's unavoidable impacts to regulated wetland and aquatic habitats and associated fish and wildlife species.

The project is divided into 8 reaches and into project-level versus program-level levee alignments for analysis in the project's forthcoming Draft Environmental Impact Report (DEIR) (Figure 2). Construction of the project-level reaches is anticipated to begin as soon as 2028. Construction of the program-level reaches would occur further in the future.

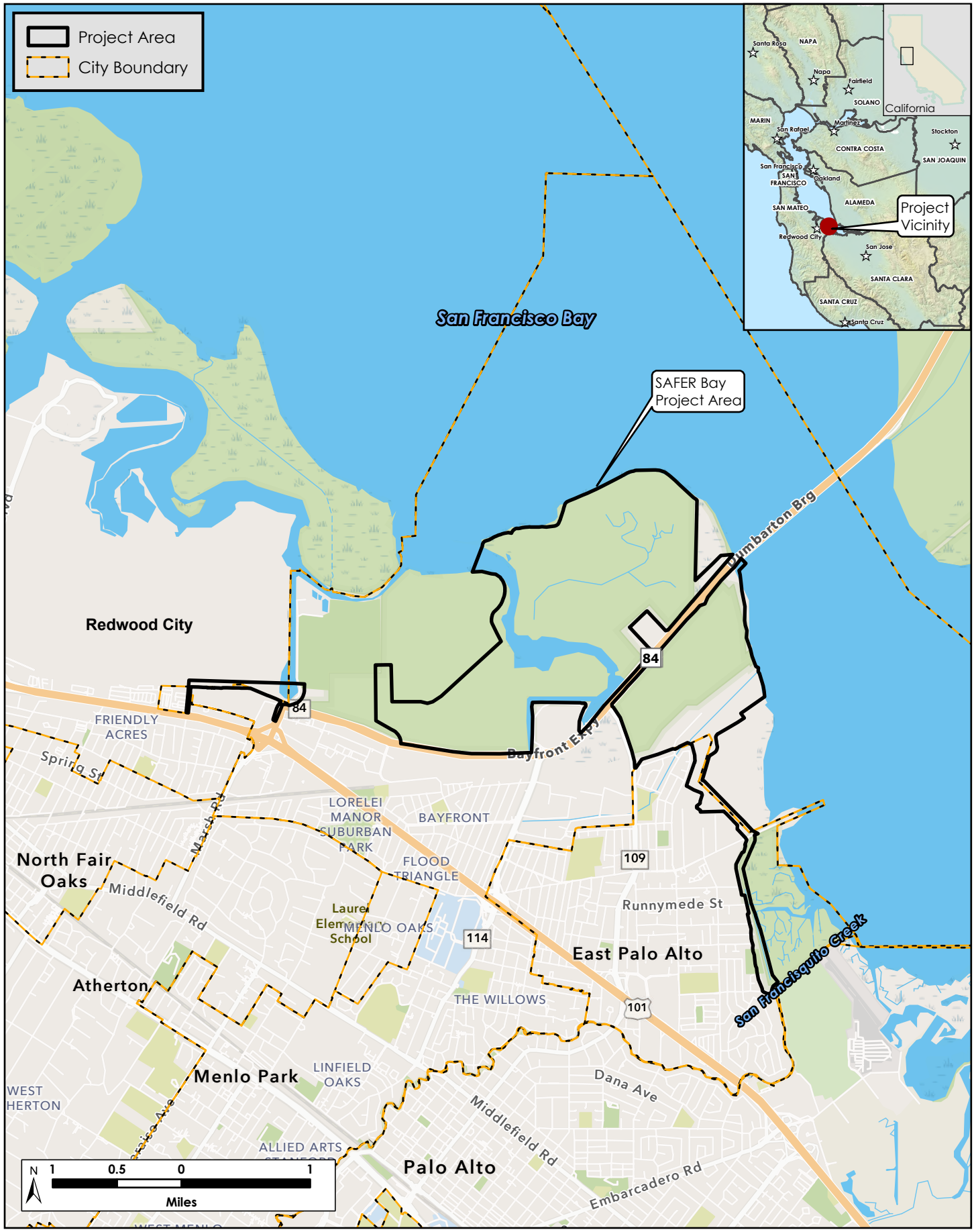

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Figure 1. Vicinity Map

SAFER Bay Project - Ecological Basis of Design for Project Level Reaches (3550-05)
April 2026

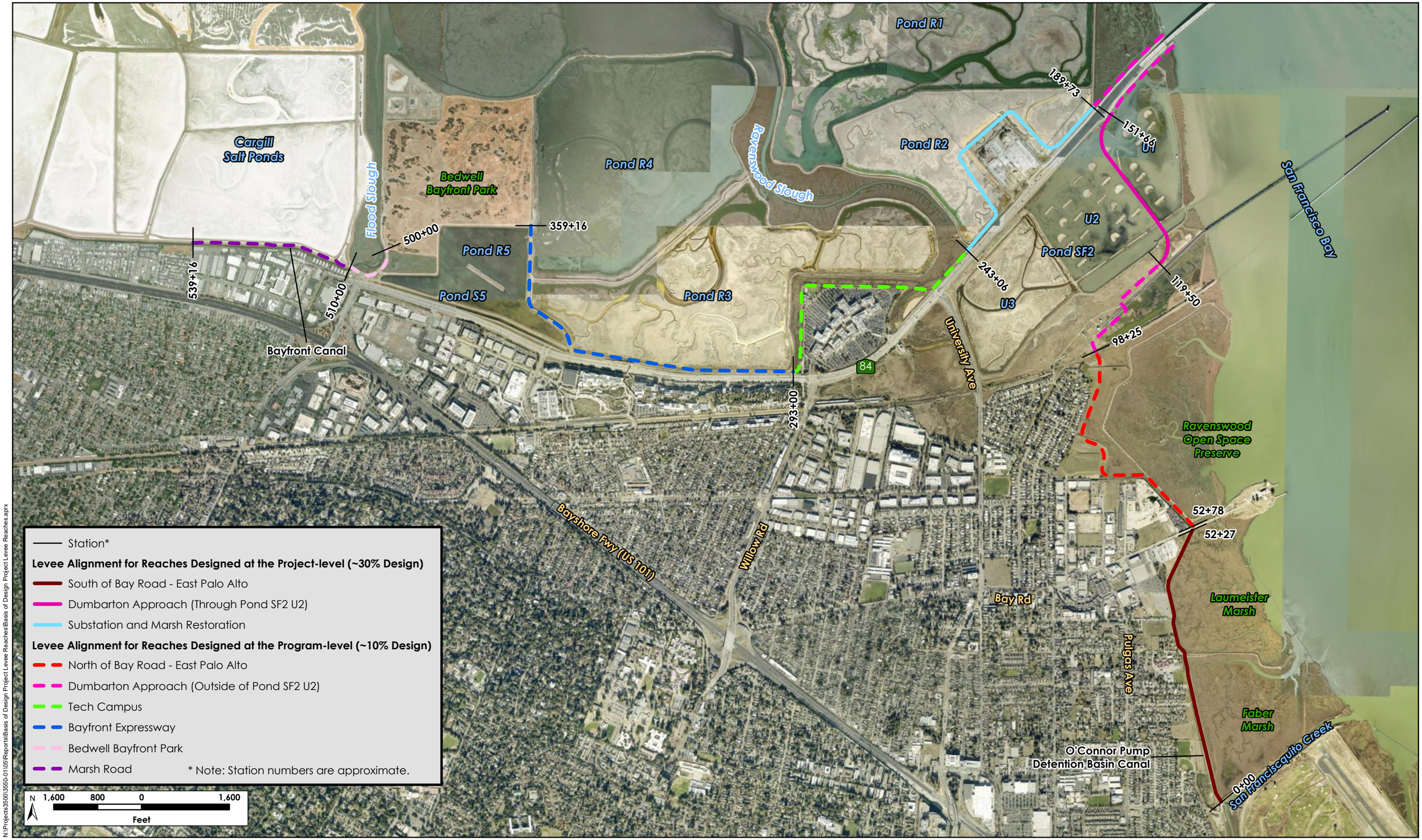

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Figure 2. SAFER Bay Levee Alignments
SAFER Bay Project - Ecological Basis of Design for Project Level Reaches (3550-05)
April 2026

Project-level and program-level levee alignments are shown on Figure 2 and listed below from south to north:

- Project-Level Levee Alignments—
    - South of Bay Road – East Palo Alto
    - Dumbarton Approach (portion of levee alignment through Pond SF2 U2)
    - Substation and Marsh Restoration
- Program-Level Levee Alignments—
    - North of Bay Road – East Palo Alto
    - Dumbarton Approach (portion of levee alignment outside of Pond SF2)
    - Tech Campus
    - Bayfront Expressway
    - Bedwell Bayfront Park
    - Marsh Road

Levees and related flood protection improvements will impact jurisdictional wetland habitats along the bayshore and affect associated special-status wildlife species, including WSP, salt marsh harvest mouse (*Reithrodontomys raviventris*) (SMHM), California Ridgway's rail (*Rallus obsoletus obsoletus*) (CRR), California black rail (*Laterallus jamaicensis coturniculus*), black skimmer (*Rynchops niger*), elegant tern (*Thalasseus elegans*), and the regionally rare Caspian tern (*Hydroprogne caspia*), as well as several fish species. To reduce temporal loss of regulated habitats and associated species impacts, the project's restoration is included in the project-level reaches to be constructed concurrent with the project's initial impacts from levee construction.

1.2 Definition of Habitat Enhancement, Restoration and Creation Terms

The various federal and state regulatory agencies that will assess the adequacy of habitat changes for the SAFER Bay project have slightly different definitions for terms used to describe habitat improvement. In this report, we use the following definitions published by the U.S. Army Corps of Engineers (USACE) South Pacific Division (USACE 2015):

- **Enhancement—**"Manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s) but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area."
- **Restoration**—"Manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource(s). For the

purpose of tracking net gains in aquatic resource area, restoration is divided into two categories re-establishment and rehabilitation. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource areas. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions."

- **Creation (Establishment)—**"Manipulation of the physical, chemical, or biological characteristics present at an upland site to develop aquatic resources that did not previously exist. Establishment results in a gain in aquatic resource area and functions."

1.3 Report Purpose

H. T. Harvey & Associates' (H. T. Harvey) restoration and wildlife ecologists prepared this report with Environmental Science Associates (ESA) hydrologists to provide the ecological basis of design for all habitat restoration and enhancement elements (hereafter, restoration elements) incorporated into the project. The restoration elements included are designed to both offset project impacts and to enhance the bay shoreline ecosystem and landscape in the project area, per the project's purpose. Therefore, the report includes the basis of design for all restoration elements in project-level reaches, as well as the basis of design to establish habitat on earthen flood control levee slopes across all 8 reaches (i.e., along both project-level and program-level levee alignments; Figure 2). This report will be used to inform the DEIR's analysis, and later, to provide design information necessary for project permitting and restoration construction documents.

This report does not cover habitat restoration maintenance, monitoring, adaptive management, or detailed constructability and geotechnical engineering; those items will be addressed in further design efforts beyond this 30% Basis of Design Report. However, the design team is confident that the plans set forth within are constructable based on existing information and experience on other similar restoration projects. These post-construction components will be developed in the project's future Habitat Restoration and Monitoring Plan to be prepared during the state/federal resource agency permitting phase via the San Francisco Bay Restoration Regulatory Integration Team (BRRIT) process.

Section 2.0 Restoration Overview

2.1 Habitat Restoration Plan

The project's primary habitat restoration and enhancement elements are planned in and around the Ravenswood Pond Complex at Ponds R1, R2, R3 and SF2 (Figure 3). The restoration plan was developed by the project team after considering several landscape scale levee alignment and restoration options, which are documented in *SAFER Bay Project Wetland Habitat and Western Snowy Plover Impacts and Restoration Options Evaluation* (H. T. Harvey 2024). The proposed restoration plan and levee alignment within the Ravenswood Pond Complex corresponds with Option 1 in that report; the option that was recommended for selection (Figure 3).

The project's restoration plan includes the following habitat restoration elements:

- Large-scale tidal marsh restoration and in-marsh refugia enhancements in Ponds R1 and R2 (Section 3)
- Creation of T-zone habitat in Pond R2 (Section 3)
- Creation of new seabird nesting islands in Pond R1 (Section 3)
- Enhancement of managed ponds for WSP within Ponds R3 and SF2 (Section 4)
- Revegetation of T-zone and grassland habitats on earthen levee slopes (Section 7)
- Tidal marsh channel reconfiguration in Faber Marsh, Laumeister Marsh, Ravenswood Open Space Preserve marsh, and Ravenswood Slough (Section 8)

2.2 Overview of Restoration Goals

This restoration basis of design was developed to meet the following goals:

- Integrate bay shoreline habitat restoration with SAFER Bay's flood protection infrastructure in a mutually beneficial manner.
- Offset permanent and temporary impacts to sensitive biotic habitats and species for the entire project (i.e., both project-level and program-level reaches) sufficiently so that project impacts are less-than-significant with minimal mitigation under the California Environmental Quality Act (CEQA).
- Develop a permittable project by incorporating ample habitat restoration into the project to offset permanent impacts to regulated habitats and species under the jurisdiction of the USACE, U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service, Regional Water Quality Control

Board (RWQCB), Bay Conservation and Development Commission (BCDC), and California Department of Fish and Wildlife.

- Restore areas of temporary impact in jurisdictional habitats to equal or better habitat function relative to the pre-construction condition.
- Design habitat features that are resilient to SLR.
- Revegetate earthen levee slopes to complement adjacent habitat functions in a manner consistent with levee engineering requirements.
- Enhance the bay shoreline ecosystem in ways that align with regional restoration and management goals, especially:
    - The SBSPRP restoration plan calls for converting Ponds R1 and R2 from managed ponds to tidal marsh (EDAW et al. 2007), assuming that such restoration is adequately balanced with sufficient managed pond habitat for shorebirds. However, SBSPRP cannot breach Ponds R1 and R2 to restore tidal marsh without providing landward coastal flooding protection. The SAFER project will provide the required coastal flood protection and restore Pond R1 and R2 to tidal marsh in collaboration with SBSPRP.
    - The SBSPRP and the Don Edwards National Wildlife Refuge (Refuge) have identified the goal of maintaining Pond R3 as a managed pond for WSP. The SAFER project furthers this goal by enhancing Pond R3 as managed pond for WSP.
    - The SBSPRP restoration plan includes preservation of SF2 U2 and U3 as managed ponds (EDAW et al. 2007). The SAFER project will convert the U2 and U3 ponds from seabird nesting habitat to WSP breeding/foraging habitat and protect these managed ponds from coastal flooding risk via levee construction. This will be done without adversely affecting the seabird population that currently uses U2 and U3 by creating additional seabird nesting islands in Pond R1 in a manner that is compatible with tidal restoration of Pond R1.
    - San Francisco Bay faces a deficit of naturally occurring sediment necessary to restore and sustain tidal marshes (SFEI 2021). As a result, San Francisco Estuary Institute (SFEI) and BCDC recommends increasing beneficial reuse to offset the sediment deficit (SFEI 2021, BCDC 2024). SAFER Bay will contribute to this regional goal by beneficially reusing bay mud, excavated during construction of its levees, for tidal marsh restoration in Ponds R1 and R2.

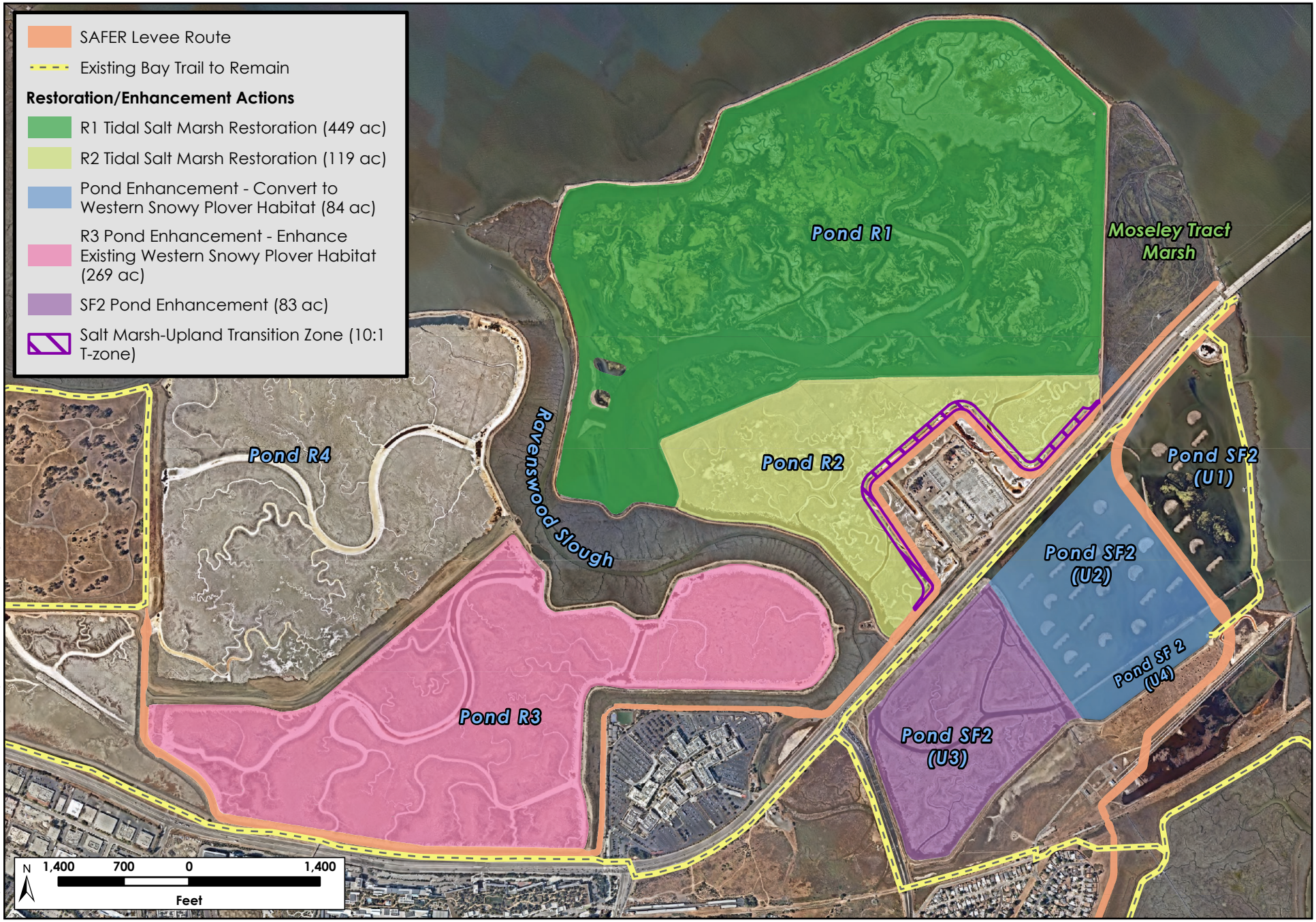

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Figure 3. Restoration/Enhancement Actions Proposed in Ponds R1, R2, R3 and SF2

SAFER Bay Project - Ecological Basis of Design for Project Level Reaches (3550-05)
April 2026

Section 3.0 Pond R1/R2 Tidal Marsh Restoration Design

3.1 Goals and Design Criteria

SAFER Bay will restore contiguous tidal salt marsh in Ponds R1 and R2. Figure 4 provides an overview of the restoration design in Ponds R1 and R2. The design is based on the following tidal habitat restoration goals:

- Restore high quality tidal salt marsh habitat that includes suitable breeding, foraging, and refugia habitat for CRR, SMHM, California black rail, and other resident salt marsh species. Refugia habitat is vegetation that provides cover from predators and habitat for CRR, SMHM, California black rail, and other resident marsh species that is above the water surface during high tides.
- Restore conditions that result in a high rate of natural import of sediment with tides and high rates of sediment accretion to speed vegetated tidal marsh establishment and increase the resilience of the restored tidal marsh to SLR.
- Provide benefits to fish species in San Franscico Bay.
- Incorporate into the Pond R1 restoration plan construction of two seabird nesting islands that are of ample size and quality to offset effects on Caspian tern, elegant tern, and black skimmer from removal of nesting islands at SF2 cell U2.

To achieve these goals, the restoration design includes the following broad criteria:

- Establish a combination of external and internal berm breach locations, ditch blocks, and excavated pilot slough channels to establish fully tidal marsh hydrology in Ponds R1 and R2 in a manner that reoccupies the historic slough channel network.
- Select external berm breaches at locations that minimize impacts to existing tidal salt marsh located in Ravenswood Slough.
- In addition to a primary breach location along Ravenswood Slough, breach Pond R1 to San Francisco Bay to enhance fish access.
- Leave existing pond berms in place where they serve both wind wave erosion dissipation (to help support sediment accretion) and provide high tide refugia habitat.
- Construct high tide refugia berms along existing and constructed slough channels throughout R1 and R2 to provide high quality in-marsh refugia for CRR an SMHM.
- Construct seabird nesting islands in Pond R1 locations where sediment is unlikely to accumulate rapidly around islands, thereby reducing the frequency of sediment excavation.

- Borrow ditches can capture tidal flow at the expense of dendritic slough channel networks and are slower to accumulate sufficient sediment to convert to tidal marsh with SLR. Therefore, convert as much of the borrow ditches in R1 and R2 to tidal marsh by reusing bay mud generated from levee construction without delaying R1/R2 levee breach.

3.2 Overview

Ponds R1 and R2 were historically part of a large, continuous tidal salt marsh connected to Ravenswood Slough. Both ponds were diked off from tides between 1940 and 1948 for salt production (SFEI 2004). Since diking, the elevation of the surface of the former marsh plain has subsided 2–3 feet from approximately elevation 7 feet (North American Vertical Datum 1988 [NAVD88]) to approximately 4–5 feet NAVD88 in the existing condition (approximately 0.5 to 1.5 feet above mean sea level [MSL]) (Table 1). Native tidal marsh vegetation typically recruits at elevations above approximately 1.5 feet above MSL, therefore, most of Pond R1 and R2 are 0–1.0 foot lower than the elevation threshold necessary to support tidal marsh vegetation at the time of breaching. The restoration plan for Pond R1 and R2 is to reconnect Pond R1's dendritic slough channel network to Ravenswood Slough and reconnect Pond R2 to Pond R1 via internal breaches. These actions will facilitate natural sediment accretion to increase the elevation of the marsh plain in the ponds to support tidal marsh vegetation (Figure 4). In addition to the primary tidal connection at Ravenswood Slough, Pond R1 will have a second breach providing reconnection to San Francisco Bay on the west side to better facilitate fish access to the restored marsh.

Table 1. Tidal Datums at SAFER Bay

Tidal Datum	Feet NAVD88[1] 2031 Projection[2, 3]	Feet NAVD88 2081 Projection[2,3]
Highest astronomical tide	8.99	12.07
High tide line[4]	8.41	11.49
Mean higher high water	7.41	10.49
Mean high water	6.80	9.88
Mean sea level	3.48	6.56
Mean lower low water	-1.20	1.88

[1] NAVD88 = North American Vertical Datum of 1988.

[2] Tidal datums are based on Dumbarton Bridge tidal gauge (Station ID: 9414509) and modified based on Foxgrover et al. 2007.

[3] Tidal datum projections are modified based on California Ocean Protection Council (2024) "intermediate-high" sea level scenario for San Francisco, California.

[4] High tide line is estimated as 1 foot above mean higher high water.

Sediment accretion and natural seed supply will result in vegetation establishment on the marsh plain and along slough channel edges in Ponds R1 and R2, through natural recruitment of marsh plant species including Pacific cordgrass (*Spartina foliosa*), perennial pickleweed (*Salicornia pacifica*) and annual pickleweed (*Salicornia depressa*) over an approximately 10–20-year period after breach (see Section 3.4). Following sediment accretion and plant establishment, the marsh plain will support CRR and SMHM habitat. Both species require access to vegetation

above the reach of tides for cover from predators during extreme high tides. High tide refugia should be distributed in patches throughout the interior of the marsh (i.e., in-marsh refugia) and along its upland perimeter to provide ample, rapid access for CRR and SMHM to refugia during king tide events (H. T. Harvey 2023). In natural tidal salt marshes of the San Francisco Estuary, in-marsh refugia is typically provided by vegetated natural berms that form along the top of slough channel banks. However, the formation of this micro-habitat takes considerable time. Therefore, insufficient in-marsh high-tide refugia habitat will be present in the restored marsh to support these species after the initial establishment of low and mid-elevation marsh plain habitat. Therefore prior to breach, high tide refugia berms will be constructed in Ponds R1 and R2 and seeded with high marsh plant species prior to breach so that sufficient in-marsh refugia is present once the marsh plain revegetates (see Section 3.8). Additionally, in-marsh refugia will be established on the berm between Pond R1 and R2, which will be at an appropriate elevation for high marsh vegetation recruitment following breach. The R1/R2 berm will be separated from the existing Ravenswood Trail by lowering a section of the berm to make terrestrial predator access more difficult during extreme high tides.

The existing bathymetry in Pond R1 retains the natural slough channel system that had conveyed tidal action throughout the historic tidal salt marsh prior to salt pond berm construction. This channel system is a dendritic, sinuous network that provided fundamental support for the productivity, biotic diversity and SLR resilience of the historic tidal marsh. Therefore, our design targets the restoration of full tidal action to this channel network to restore its vital functions including efficient sediment transport and deposition to rapidly build and maintain the marsh plain and naturally elevated slough channel berms that provide high tide refugia habitat. To reconnect the breach locations to the historical slough channel network, a limited number of pilot slough channels will be excavated between the breach locations and the slough channel network (Figure 4).

The pre-development topography of Ponds R1 and R2 was modified for salt production through marsh plain excavation to generate the dike/berm surrounding the two ponds by excavating borrow ditches within the ponds adjacent to the berm. The existing borrow ditches, if left unblocked by fill, could capture the tidal prism and become the primary conveyance of tidal waters from the breaches, compromising the goal to restore the historic slough channel network. Therefore, the project's excavated bay mud spoils will be beneficially reused to fill portions of the borrow ditches (i.e., ditch blocks) to direct tidal flows into the pilot slough channels and into the historic slough channel network. This will prevent borrow ditch capture of tidal flows. These bay mud spoils will be primarily sourced from the project's excavation of bay mud from the levee footprints in SF2 and R2.

In addition to establishing ditch blocks, bay mud spoils will be reused to convert a large portion of the borrow ditches from aquatic habitat to tidal marsh. Because of the depth of the borrow ditches, the anticipated trajectory of SLR, and limited sediment supply, these borrow ditches would take a very long time to recover to tidal marsh without sediment addition. Therefore, bay mud from levee construction will be used to fill as much of the borrow ditches as possible given the volume of bay mud available from levee construction prior to pond breaching. Borrow ditches will be filled to approximately mean higher high water (MHHW) to increase marsh

habitat around the site perimeter and thereby connect the marsh plain to adjacent high ground, increasing available high tide refugia and increasing the marsh resilience to SLR.

Finally, a T-zone will be constructed on the bayward side of the SAFER levee in Pond R2 using imported fill (Figure 4). The T-zone will provide high tide refuge habitat in Pond R2, increase the resilience of the marsh to SLR, and restore a relatively rare habitat type at the bay margin. The basis of design for the T-zone is further discussed in Section 3.9.

Table 2 provides a summary of restoration design dimensions. Table 3 provides approximate surface area and earthwork volume estimates for the restoration features. These restoration design features are further discussed in the following sub-sections.

3.3 Breaches and Channels

Ponds R1 and R2 will be breached to San Francisco Bay to restore tidal wetland habitat and tidal exchange of water and sediment. Connecting the project site to the bay will re-establish the historic dendritic tidal channel network and restore tidal inundation to the adjoining remnant marsh plain. The far South Bay has substantial ambient suspended sediment which has led to deposition and conversion of subsided managed wetlands to tidal marsh at multiple nearby locations.

The breaches and channels are sized using hydraulic geometry (Williams et al. 2002), with selected design dimensions between the smaller, likely long-term dimensions based on marsh area and the larger dimensions that would correspond to the initial tidal prism immediately after breaching. The breach and channel dimensions will be refined in the detailed design phase based on the results of hydrodynamic modeling. The channels will be refined to reduce grading, as much as possible, while confirming that the full bayward tide range is conveyed throughout the restoration site interior and that flow velocities are similar to those observed in natural marsh channels (e.g., about 3 feet/second). Design dimensions and side slopes of all breach and channel excavations discussed below are shown in Table 2 and the approximate locations are shown on Figure 4.

3.3.1 Primary Breach

The primary breach is located near the downstream end of Ravenswood Slough, to reduce impacts to existing marsh along the edge of the slough (Figure 4). Restored tidal flows from the site will tend to scour and enlarge the existing Ravenswood Slough channel. So, by placing the breach nearly at the downstream end of the vegetated portion of the slough, the extent of the post-breach enlargement of the slough and concomitant marsh scour will be reduced. The proposed breach location is relatively close to the primary historic channel within Pond R1, thereby minimizing the extent of new interior channel excavation needed to connect the breach to the historic channel.

SAFER Levee Route

Existing Ravenswood Trail (Not Part of Bay Trail)

Retain Trail as Year Round Spur Trail

Retain Trail as a Seasonal Trail Spur

Decommission Trail, Convert to T-zone Habitat

Existing Internal Pond R1/R2 Berm

Cross Sections

Restoration Features

High Tide Refugia Berm[1]

Seabird Nesting Islands[2]

Salt Marsh-Upland Transition Zone (10H:1V T-zone)[2]

Fill Major Borrow Ditches[3]

Fill to Tidal Marsh Elevation[3]

Excavate Channels

Establish Ditch Blocks[3]

1. Construction using in-situ bay mud and/or pilot channel spoils.
2. Construct using imported terrestrial fill.
3. Construct using bay mud spoils from levee degrade or channel excavation.

Secondary Breach (Remove Trail)

Bayward Channel

Pond R1

Moseley Tract Marsh

Interior Channel at Primary Breach

East Interior Breach

Primary Breach (Remove Trail)

Nesting Island Channels

Ravenswood Slough

Pond R2

PG&E Substation

Construct 10H:1V transition zone

Pond SF2 (U1)

Pond R4

West Interior Breach

Connector Channel at West Interior Breach

84

Pond SF2 (U2)

Pond R3

N 780 390 0 780 Feet

Habitat Cross Sections
A - A' Pond R1/R2 Primary Breach and Channel (Figure 6)
B - B' Pond R1/R2 Borrow Ditch Fill (Figure 7)
C - C' Seabird Nesting Island (Figure 8)
D - D' High Tide Refuge Berm (Figure 9)
E - E' Pond R2 Transition Zone (Figure 10)

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Figure 4. Pond R1/R2 Restoration Plan View
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Table 2. Design Dimensions for Restoration Features

Feature	Crest/Invert Elevation (Feet NAVD88)	Top Width (Feet)	Side Slope (Horizontal: Vertical)	Notes
Primary breach	-7 invert	300 at MHHW	3:1	Connects R1/R2 to Ravenswood Slough (Figures 4 and 5)
Secondary breach	-2 invert	100	3:1	Connects R1/R2 directly to San Francisco Bay
Bayward channel	1 invert	200	3:1	Widens Ravenswood Slough to Bay
Interior channel at primary breach	-6 invert	250	3:1	Connect primary breach to historical slough channels in R1
Nesting island channels	-5 to -6 (-5 minimum invert)	140–180	3:1	4 feet deep at MLLW to prevent predator access
Interior breach, west	-1.5 invert	100	3:1	Top width at top of berm
Interior breach, east	1.0 invert	80	3:1	Top width at top of berm
Ditch blocks	9 crest	20	3:1	Slope to marsh plain
Additional borrow ditch fill	Varies	Varies	Varies	Slope from HTL to existing marsh plain (Figure 6)
Nesting islands	10.5 to 11.5 crest	150–380	3:1	Top width excludes steeper slope to grade
High tide refugia berms	8.4–8.9 crest	4–8	1:1	Use material excavated from channel edge to create refugia then seed
R1/R2 berm	NA	NA	NA	Compost amendment and seeding
Decommission existing Ravenswood Trail	NA	NA	NA	Ripping, compost amendment and seeding
10H:1V T-zone	13.5 at connection to levee	80 above MHHW	10:1	To provide 40 feet of refugia above MHHW with 3.5 feet of SLR

Notes: Elevations for features created with fill are provided post-settlement (target elevation). These features will be constructed higher to accommodate settlement. HTL = high tide line; MHHW = mean higher high water; MLLW = mean lower low water; NA = Not applicable; SLR = sea level rise; T-zone = transition zone.

Table 3. Approximate Surface Area and Earthwork Quantities

Feature	Surface Area (Acres)	Volume (Cubic Yards)	Notes
Excavation			
Primary breach	0.89	18,000	
Secondary breach	0.28	2,300	
Bayward channel	7.96	24,000	
Interior channels			

Feature	Surface Area (Acres)	Volume (Cubic Yards)	Notes
Interior channel at primary breach	4.20	56,000	
Nesting island channels	4.18	31,000	
Interior breach, west	0.21	1,600	
Interior breach, east	0.17	880	
High tide refugia berms	4.29	17,300	Estimated as 30% greater volume than fill required to construct islands to account for consolidation/settlement during construction.
Total excavation	22.18	151,080	
Fill			
Ditch blocks	1.53	19,000	Bay mud reuse from the project excavation or imported upland fill.
Borrow ditch fill	Up to 54.4	Up to 371,000	Reuse bay mud from project excavations to fill as much of this area/volume as possible given the quantity of bay mud generated. Not necessary to fill the entire area/volume.
Seabird nesting islands	2.70	35,000	Imported upland fill.
High tide refugia berms	2.86	13,300	Created from material side-cast from associated interior pilot channels.
10H:1V T-zone	11.4	60,200	Imported upland fill. Surface area is T-zone from top of FRM levee to toe of 10H:1V T-zone slope
Total fill	72.9	Up to 479,500	

Notes: Fill estimates are neat line and do not account for losses on placement. Losses of wet material may be in the range of 40% to 50%. Topsoil and miscellaneous fill (defined as the top 1 foot of excavated material) not tracked; to be refined in subsequent design. Surplus of material from levee construction may be made up with placement in borrow ditches. T-zone = transition zone.

The primary breach is intended to convey tidal flows from the western part of Pond R1 and Pond R2, with the drainage area as indicated by the historical tidal channel network. For this drainage area, the tidal prism was estimated from the existing conditions digital elevation model and the tide range in the bay. For this tidal prism and marsh drainage area, hydraulic geometry relationships (Williams et al. 2002) were used to estimate the corresponding channel dimensions. Because the surfaces of the ponds are subsided below natural marsh elevations and yield a larger tidal prism than a mature marsh, the tidal prism-based equations provide a larger channel cross section than the marsh area-based equations. The selected design dimensions are intermediate between these two methods. To accommodate the larger tidal prism anticipated right after breaching, the breach dimensions were set as 40% of difference between the smaller marsh-area-based dimensions and the larger tidal-prism-based dimensions for the channel width and 50% for channel depth (Figure 5).

Section A-A'

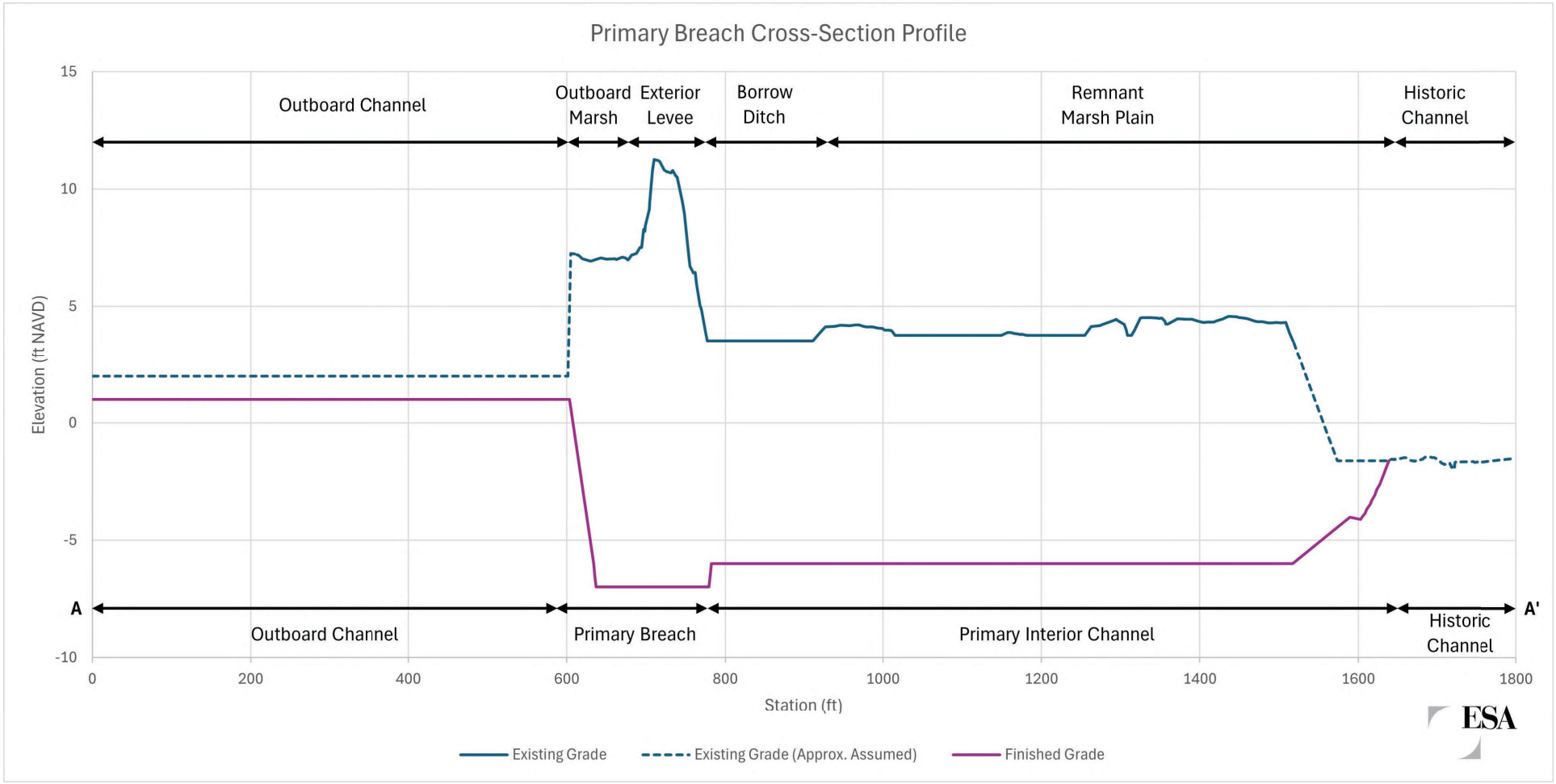

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Figure 5. Primary Breach and Channel Typical Section
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Section B-B'

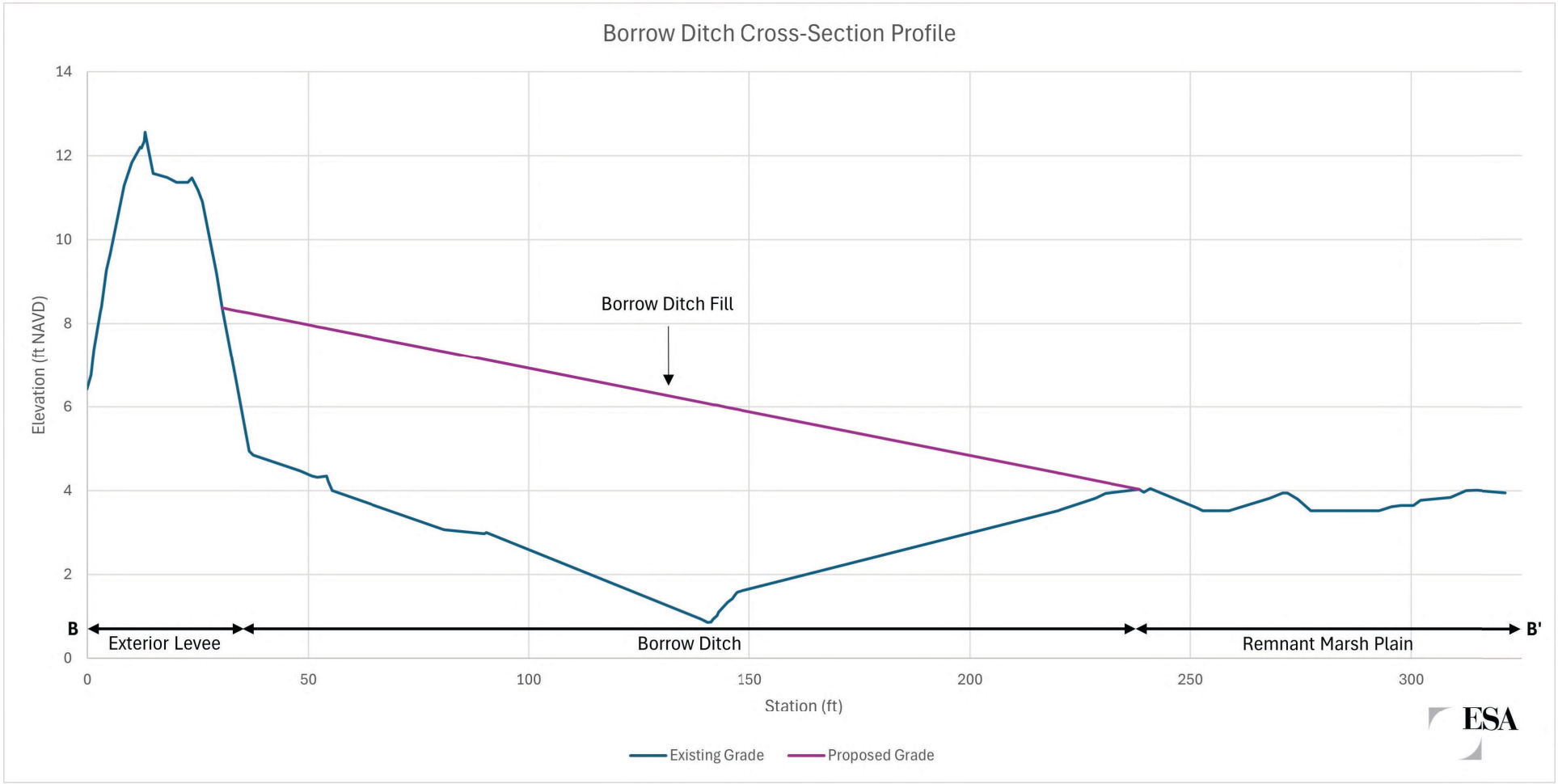

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Figure 6. R1/R2 Borrow Ditch Fill and Conversion to High Marsh
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3.3.2 Bayward Channel at Primary Breach

A bayward channel is proposed to be excavated through Ravenswood Slough downstream of the primary breach to improve the tidal connection between the site and the Bay (Figures 4 and 5). Construction of such a channel accelerates the timing when the interior of Ponds R1 and R2 achieve full tidal connectivity with the bay which is a design criterion. Another approach would be to let the channel bayward of the primary breach scour on its own in response to restored tidal flows. Some tidal marsh restoration projects have taken this second approach. Eliminating or reducing the constructed size of the bayward channel may avoid direct construction impacts bayward of the breach but may also restrict initial tidal exchange and thereby slow the rate of vegetated marsh establishment. The ability of a smaller constructed channel or no additional dredging of the existing channel to provide full drainage of the site at lower low tides will be further assessed using hydrodynamic modeling during the detailed design phase. For this preliminary design, we assume a constructed bayward channel.

The width of the bayward channel would be set to equal the bottom width at the primary breach. The excavated channel then extends from the breach to where the existing bayward channel dissipates into a distributary fan. The mudflat elevation at this transition is about 1 foot NAVD88. This elevation is the assumed channel invert for the full length of the bayward channel.

The footprint for the bayward channel includes a patch of tidal marsh on the west bank of Ravenswood Slough. While the bayward channel could be narrowed in this location to avoid disturbing the marsh, this may limit initial tidal exchange and the marsh may nonetheless scour over time in response to the natural enlargement of the bayward channel.

Pond R4 was recently restored by the SBSPRP and included excavation of a shallow bayward channel. The ongoing evolution and performance of this channel will be considered when refining the restoration design of Ponds R1 and R2.

3.3.3 Secondary Breach

The site will be breached at a secondary location, in the northeast corner of Pond R1 to provide an additional tidal connection to the Bay (Figure 4). Several of the historic channels drained to the northeast and this breach will provide drainage for the area drained by those channels. The secondary breach also provides an additional access point for fish passage from the Bay to the restored site. Because the Bay just bayward of this breach appears to be subtidal, no bayward channel is anticipated to be needed for this breach.

The secondary breach is located at the northern end of the fringing marsh on the bayward side of the Pond R1 levee. Compared to the erosion potential to the north of this location (as indicated by recently placed riprap along the northern side of the Pond R1 exterior levee), the presence of this marsh suggests the wave energy is lower at the breach location. The wave energy is likely lower because of the levee aspect relative to wave fetch

direction and fetch length. In this more sheltered location, the breach will face less erosion pressure, while also avoiding the need to remove a larger area of the fringing marsh.

Sizing for the secondary breach followed the same approach as for the primary breach but used the marsh area and tidal prism for this breach's drainage area in the eastern part of the site.

3.3.4 Interior Channels

Interior channels will be excavated just inside the primary breach to re-connect the breach to the primary historic channel and to isolate bird nesting islands from mammalian predators. Excavation from the channels will provide material to be placed as ditch blocks and borrow ditch fill. The channels will be excavated to depths and widths suitable for providing full tidal exchange to the site.

A small interior channel will also be excavated at the west internal berm breach.

3.3.4.1 Interior Channel at Primary Breach

The interior channel just inside the primary breach will connect the breach to the site's large historic channel and associated channel network. It will also serve as the subtidal channel along the adjacent seabird nesting island. Sizing of this channel followed the same approach as for the primary breach but used the marsh area and tidal prism specific to the area this channel would drain (slightly smaller than for the breach).

3.3.4.2 Seabird Nesting Island Channels

To discourage mammalian predators from accessing the nesting islands (see Section 3.6), these channels will be designed to be subtidal at the lowest astronomical tides. Local mean lower low water (MLLW) at the Dumbarton Bridge is -1.2 feet NAVD88, king tide low water is assumed to be about -2.5 feet NAVD88, and lowest astronomic tide at the bridge is -3.5 feet NAVD88 (National Oceanic and Atmospheric Administration 2025). The design elevation for channels around the nesting islands is set to -5 feet NAVD88, or about 4 feet below MLLW. This will result in a water depth of about 2.5 feet at king tides, as constructed. The design includes an allowance of up to 1.5 feet of sedimentation. With 1.5 feet of sedimentation, the channel continues to function with a water depth of 1 foot at king tides.

For this invert elevation, hydraulic geometry relationships indicate a corresponding channel top width of 140 feet. With this width in mind, the suggested design dimensions were selected by considering existing bathymetry (such as the widths of the borrow ditch and the channel cut south of the southern nesting island) and the partitioning of restored tidal flows between the redundant channels around the nesting islands. These islands are located near primary breach, such that surrounding channels are likely to convey more flow and therefore encourage long-term resilience of subtidal invert elevations. Preferred channel design dimensions to encourage this geomorphic condition will be developed in the detailed design phase; the dimensions provided in Table 2 and quantities in Table 3 are likely an upper bound. Nesting island and associated channel design will be further

studied with hydrodynamic modeling, to check dimensions for channels in this location and/or shifting the location of the islands.

3.3.5 Interior Breaches

An internal berm separates Ponds R1 and R2. To provide tidal connectivity, the interior berm between R1 and R2 will be breached at two historic channel locations, an east breach and a west breach. The internal berm has a typical crest elevation of 9 feet NAVD88, about 1.5 feet above MHHW. At this elevation in the tidal frame, the berm crest can serve as a wave break and can provide high tide refugia. As such, the berm crest will not be lowered outside of the breaches. Its surface soil will be treated to encourage vegetation establishment and seeded (see Section 3.8).

3.3.5.1 East Breach

The east interior breach will be located where a large historic channel crosses near the eastern end of the R1/R2 internal berm. Much of the historic marsh area that the channel served has been cut off by fill for the electric power substation and highway. Additional historic marsh area will be filled by the proposed SAFER Bay levee. Since the anticipated channel drainage area that will be restored is smaller than the historic drainage area, the breach dimensions corresponding to the equilibrium marsh area are smaller than the historic channel. To avoid constricting the historic channel, the proposed design is to match the breach width to the channel width south of the berm and match the depth calculated using hydraulic geometry relationships (Williams et al. 2002) for the restored marsh area.

3.3.5.2 West Breach

Historic channels in the western part of Pond R2 drained southwest and into Ravenswood Slough. Reconnecting these historic channels by breaching the external levee directly to Ravenswood Slough would maintain the historic drainage patterns. However, this approach was not selected as it would require cutting through the fringing marsh along Ravenswood Slough and would cause additional downstream scour of tidal marsh habitat in Ravenswood Slough as more tidal flow moves through the slough. To be somewhat consistent with the historic channels in the western part of Pond R2, the west interior breach is sited near the west end of the internal berm, at the downstream end of one of these historic channels. This provides a pathway for the other historic channels in western Pond R2 to drain to the borrow ditch, which would act as a tidal channel, and then flow through the west interior breach to connect to tidal channels in Pond R1. A short interior channel will be excavated to connect the borrow ditch to the west interior breach. Because the borrow ditch is maintained as an active tidal channel, fill will not be prioritized for placement in this part of the ditch. If additional fill areas are desired, fill could be placed along the interior side of the exterior levee, filling part of the Pond R2 borrow ditch cross section while still allowing for drainage.

The western internal breach in the R1/R2 berm is sized with hydraulic geometry relationships to be a function of the marsh area in western Pond R2. The short interior channel connecting this breach to the existing borrow

ditch would have the same dimensions as the breach, for the portion of the breach below the remnant marsh plain along the channel's alignment.

3.3.6 Earthwork and Construction Methods

The breaches, external and internal, will likely be constructed using tracked low ground pressure (LGP) excavators accessing the site via the tops of existing berms. Dump trucks could be used to move excavated material to the borrow ditches.

The bayward channel at Ravenswood Slough will be dredged using floating equipment such as a barge-mounted clamshell dredge. Material will be placed directly into the interior borrow ditches or deposited in a second barge for transport and use in the interior borrow ditches. Use of turbidity curtains may be required for water quality protection, to reduce transport of high turbidity water outside of the construction area.

The proposed large interior channels (nesting island channels), sized via hydraulic geometry (see introduction to Section 3.3) to create subtidal moats around the nesting islands, are wider (260 feet) and deeper (9 feet) than those previously constructed in San Francisco Bay in similar environments and therefore there aren't proven construction methods for this size of channel. Channels this wide and deep will be difficult to construct. Therefore, these channel sizes may be reduced during the detailed design phase to account for cost/constructability while providing an adequate impediment to mammalian predator access to the nesting islands.

It may be possible to excavate the channels in a few ways. For all construction approaches, material excavated from the large channels adjacent to the nesting islands will be used to fill the borrow ditches.

- **Dredging**—This approach would bring in a floating excavator on a barge and load material into a barge or LGP dump trucks for transport. Bringing in a barge would require creation of a temporary earthen lock (or "donut") with associated environmental impacts. However, dredging could be the most straightforward method.
- **Land-Based Excavator**—In this approach, the contractor would create a stable platform (with temporary fill or marsh mats) and use LGP excavators to excavate the channel. LGP excavators and dump trucks could be used to transport material to the borrow ditch disposal areas. A temporary road would be constructed to allow the dump trucks to transport material. The fill and road would be removed after construction of the channel. This approach was used at Sonoma Creek Marsh. This approach has high costs associated with construction of a temporary road for land-based access.
- **Amphibious Excavator**—Use of an amphibious excavator may be possible, though this method would require a means of transferring material for transport. Material transport would not be straightforward. A barge or LGP dump trucks on a temporary road could potentially be used.

As noted above, the proposed channels are wider and deeper than those previously constructed in San Francisco Bay. For reference, the excavated channels (with sidecast mounds) at Pond R4 are 50 feet wide and 4 feet deep (to 2 feet NAVD88). The largest channels at Sonoma Creek Marsh using traditional land-based methods (temporary road and LGP excavators) were 60–70 feet wide and 6–7 feet deep. The largest channels excavated at Sonoma Creek Marsh using amphibious excavator were 35 feet wide and 4 feet deep.

3.4 Projected Tidal Marsh Establishment Timeline and SLR Resilience

The remnant marsh plain in Ponds R1 and R2 is subsided and generally too low in elevation to initially support tidal marsh vegetation once tidal inundation is restored. Over time, estuarine deposition will raise site elevations and if deposition exceeds the rate of SLR, tidal marsh vegetation can establish. ESA assessed marsh sedimentation rates to evaluate the potential for the restored site to convert from tidal mudflat to vegetated marsh over time. Results of the assessment suggest that sedimentation will be sufficient to raise the marsh plain to support significant areas of vegetated tidal marsh within 10 to 20 years after breaching. The borrow ditches, the lowest areas on site, are expected to vegetate within 40 to 50 years. Modeling methods and results are described below. Details are provided in Appendix A.

3.4.1 Methods

Sediment accretion in tidal wetlands occurs as a result of the deposition of suspended sediments and the accumulation of organic matter within the bed sediments once vegetation is established. The dynamics of sediment deposition within a tidal estuary are influenced by a wide array of factors. For multi-decade computational modeling, full representation of all these processes requires substantial data inputs and computation time. We used an approach that makes simplifying assumptions about the key processes to distill the processes into a net accretion model for bed elevations. This approach, tested at multiple San Francisco Bay restoration sites, has demonstrated its validity and utility over several decades of restoration practice (Orr et al. 2003, Stralberg et al. 2011).

The MARSH98 model was used to estimate long-term sedimentation. The model, developed by ESA, is based on methods from Krone (1985) and estimates changes in bed elevation over time with SLR.

For the Ponds R1 and R2 assessment, the MARSH98 model was applied in two steps:

- First, the model was calibrated by performing a set of model runs to select input parameters that best reproduce observed historic sedimentation rates at several San Francisco Bay tidal marsh restoration sites near the Ravenswood Pond Complex.
- Second, the model was run using the calibrated model parameters to forecast bed elevation evolution and vegetation establishment at R1 and R2 with anticipated SLR from 2030 to 2100.

MARSH98 requires several input parameters, such as initial bed elevation, tide water levels, organic accretion rate, SLR scenario, and ambient suspended sediment concentration. Most parameters were selected based on

available local measurements and typical regional values. The suspended sediment concentration was selected based on results of the calibration.

For the calibration, ESA ran MARSH98 for a range of suspended sediment concentrations. Results were compared to observed rates of bed elevation change at the following restoration sites: SBSPRP Ponds A21 and A6 and Ravenswood Open Space Preserve (Cooley Landing). After comparing the modeled trajectories with observed elevation changes at the reference sites, ESA identified 75 mg/L as a representative suspended sediment concentration for forecasting accretion within R1 and R2. This value is consistent with measurements of suspended sediment concentrations in the vicinity. ESA also considered data from the Bair Island restoration. While Bair Island Monitoring Reports had limited data that could be used to quantify sediment accretion at Bair Island, the results generally align with the other reference sites investigated (USFWS 2024).

After input parameter selection and calibration, MARSH98 was used to forecast bed elevation evolution and vegetation establishment at Ponds R1 and R2 under the California Ocean Protection Council (2024) intermediate SLR scenario which estimates 3.1 feet of SLR by 2100.

3.4.2 Model Results

The model results are shown in Figure 7 and are based on the following assumptions:

- Site tidally restored in approximately 2030
- California Ocean Protection Council (2024) intermediate SLR scenario
- Suspended sediment concentration of 75 mg/L

Based on these results, the remnant marsh plain throughout Ponds R1 and R2 is anticipated to experience sufficient accretion to allow for significant low marsh vegetation establishment in approximately 10–20 years. The borrow ditches, starting lower in elevation, take longer to reach colonization elevations, with vegetation establishment in approximately 40–50 years; borrow ditches occupy a much smaller area of R1 and R2 compared to the remnant marsh plain. These estimates include an approximately 10-year time lag for vegetation to establish once appropriate elevations are reached. Once established, the vegetated marsh should be self-sustaining through 2100. Since organic accretion was set to zero in the model, actual rates of deposition after vegetation colonizes should be higher than shown in Figure 7. Based on these results, areas of existing marsh are also expected to sustain through 2100.

3.5 Ditch Blocks and Fill of Borrow Ditches

Around the perimeter of Pond R1 and Pond R2, borrow ditches were excavated along the inside of the exterior levee to generate fill for building the levee. These borrow ditches intersect with the historic tidal channel network and could, at least initially, divert flow from the channel network. Ditch blocks will be used to minimize this effect. In addition, excess bay mud from other parts of project construction will be used to fill as much of

the borrow ditches as possible given the volume of bay mud available for reuse, accelerating establishment of vegetated marsh.

3.5.1 Ditch Blocks

Ditch blocks will be constructed to encourage flow into the historic interior channel network rather than some flow being diverted into the borrow ditches. The ditch blocks at the primary breach are considered key components for directing flow into the channels around the nesting islands. The ditch blocks associated with the secondary breach are less likely to affect long-term channel geomorphology and may be removed in later design, as discussed below.

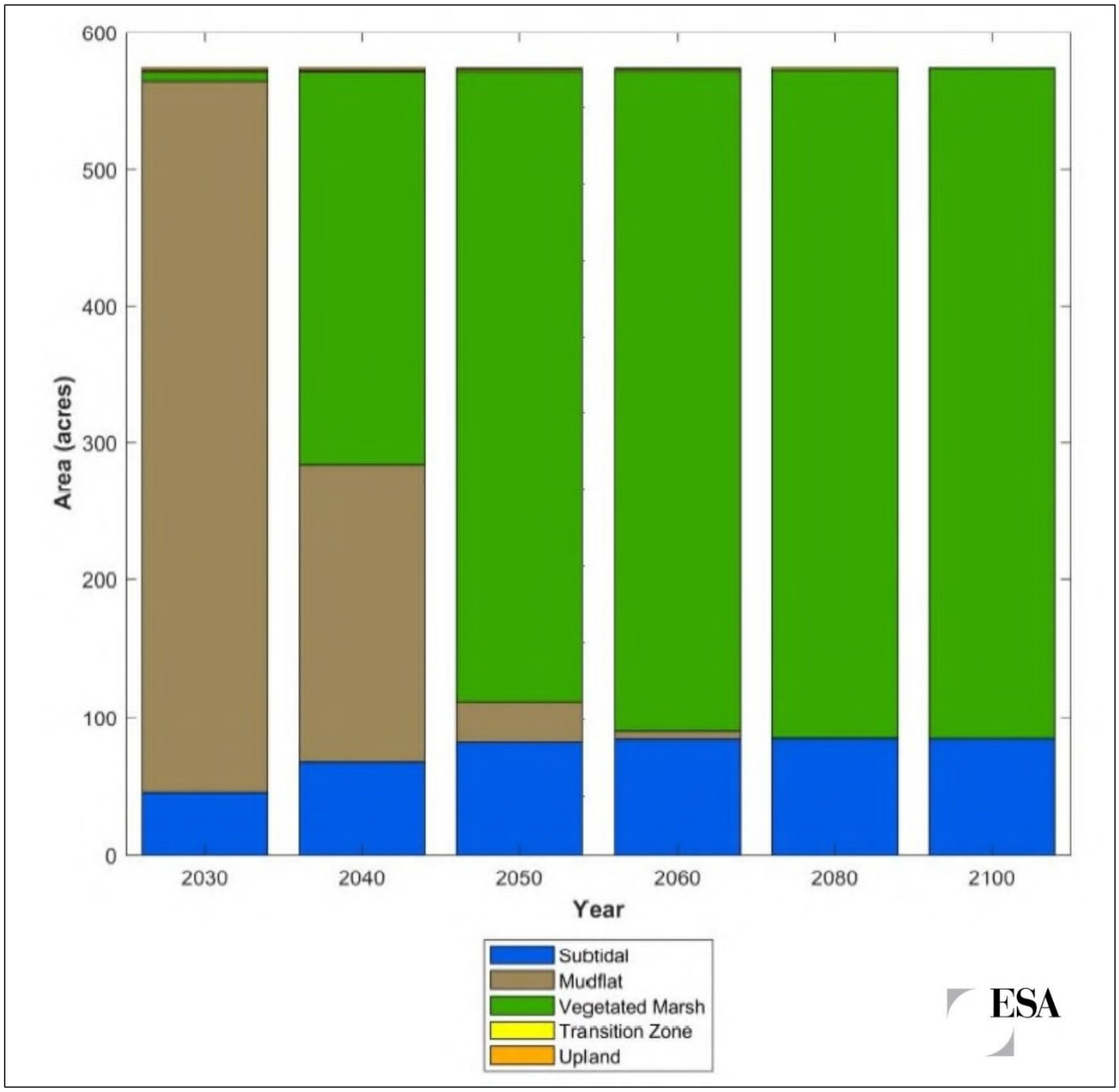


Figure 7. Pond R1/R2 Projected Habitat Distributions

At the primary breach, the ditch blocks are located just north of the breach and just south of the southern nesting island channel, to direct flow into the channels surrounding the nesting islands. More flow around the nesting islands increases the likelihood that these channels remain subtidal and discourage mammalian predator access to the islands. At the secondary breach, the ditch blocks are located at the watershed boundary between the primary breach and secondary breach. This allows the borrow ditch to provide drainage for the smaller historic channels that drain to the ditch.

The target long-term crest elevation for the ditch blocks is 9 feet NAVD88, about 0.5 feet above spring tides. This is high enough for hydraulic separation at high tide and low enough for high marsh vegetation to establish, creating high tide refugia habitat. An allowance for two feet of settlement of the placed fill for ditch blocks is assumed, based on geotechnical recommendation for nearby segments of the levee (HDR et al. 2016). This allowance should be verified with additional, location-specific geotechnical data and analysis. For constructability, the ditch block fill may require import of drier upland fill.

The northwest part of the Pond R1 borrow ditch is hydraulically isolated between two ditch blocks (the primary breach's north ditch block and the secondary breach's west ditch block). While there is some connectivity to this segment of borrow ditch via smaller historic channels, this connectivity may be insufficient to provide adequate low tide drainage. If the borrow ditch remains unfilled, subsequent design should consider excavation to enlarge and connect one or more historic channels to this northwest borrow ditch segment or elimination of the secondary breach's west ditch block.

3.5.2 Fill of Borrow Ditches

The borrow ditches provide excess conveyance for interior flows and will likely accumulate sediment deposits over time. Filling the borrow ditches could accelerate this process, leading to more rapid establishment of tidal marsh on some fraction of borrow ditch areas.

As discussed in more detail in Section 6.1, the design includes opportunistic use of excess earth (bay mud) generated by the project to fill the ditches. Possible sources of on-site fill are excavation of internal channels, excavation of the bayward channel, and excavation for the levee subgrade in Pond R2 and Pond SF2. Off-site fill from levee construction in other SAFER reaches may be generated, but timing of that excavation may occur after breaching of the restoration site. Placing fill in the borrow ditches after breaching would be more complicated, since the active tidal flushing may limit deposition and the placed fill may readily erode and be carried out to the bay. As such, placing fill in the borrow ditches after breaching may require added barriers to contain placed fill until it consolidates. Additional design considerations include modifying the timing of off-site construction to allow more reuse in borrow ditches and selecting the priority placement locations for borrow ditch fill.

Borrow ditch fill can be placed up to the elevation of the remnant marsh plain (approximately 4 feet NAVD88), or if quantities are sufficient and soil consistency allows for sloped placement, up to the high tide line (HTL)

(8.4 feet NAVD88) on the neighboring levee and then sloping down to meet the remnant marsh plain on the landward side (Figure 6).

Settlement and bulking losses are expected of borrow ditch fill. These factors are variable and dependent on the source material and its water content and will affect final fill volume in the borrow ditches.

3.5.3 Earthwork and Construction Methods

The borrow ditches will be filled with dry material to create the ditch blocks and with any other, mostly wet, material generated from onsite excavation. Material would likely be delivered via the berms by dump truck with LGP excavators used to push the material into the ditches. Since the material would be placed prior to breaching the site, turbidity curtains or other water quality measures are not expected to be required. The borrow ditches may also accept marsh material excavated during levee construction and transported to the restoration site.

3.6 Power Tower Footings

Sixteen electrical power towers are located within Ponds R1 and R2 within the tidal marsh restoration area and bayward of the proposed R2 levee and T-zone. After breaching, the footings of these power towers will be subjected to tidal action. These towers are maintained by Pacific Gas & Electric (PG&E). As the design progresses, design coordination will occur with PG&E so that PG&E can determine whether the tower footings would require improvements prior to breaching.

3.7 Pond R1 Seabird Colonial Nesting Islands

3.7.1 Goals and Design Criteria

Proposed WSP breeding habitat enhancements (see Section 4) include removal of islands in Pond SF2 cell U2 that are currently used by colonial nesting seabirds, including Caspian terns, elegant terns, and black skimmers. Construction of two nesting islands in Pond R1 is intended to offset the loss of islands currently used by these seabirds. The island design is based on the following design criteria to successfully provide suitable nesting habitat for these species:

- Islands must be surrounded by perennial open water on all sides (i.e., a moat) with a buffer of at least 120 feet from the nearest upland habitat to reduce the ability of mammalian predators to access the islands and prevent human presence from causing disturbance to/abandonment of the colony.
- Since these islands are in a tidal system, they will be overbuilt to accommodate SLR, such that at the highest astronomical tide (HAT) in 2061, the islands continue to provide suitable nesting habitat.
- The collective available nesting area of these islands must be at least equal to, if not greater than, the current amount of nesting area used by these species in SF2 cell U2.
- The island tops should be gently sloped to provide a suitable grade for nesting.

- The islands should be topped with gravel to maintain an open habitat with minimal vegetation for nesting.
- The island slopes will be stable with minimal soil erosion.

Figure 4 shows the location of the islands within Pond R1, while Figure 8 shows a cross-section depicting the design elements.

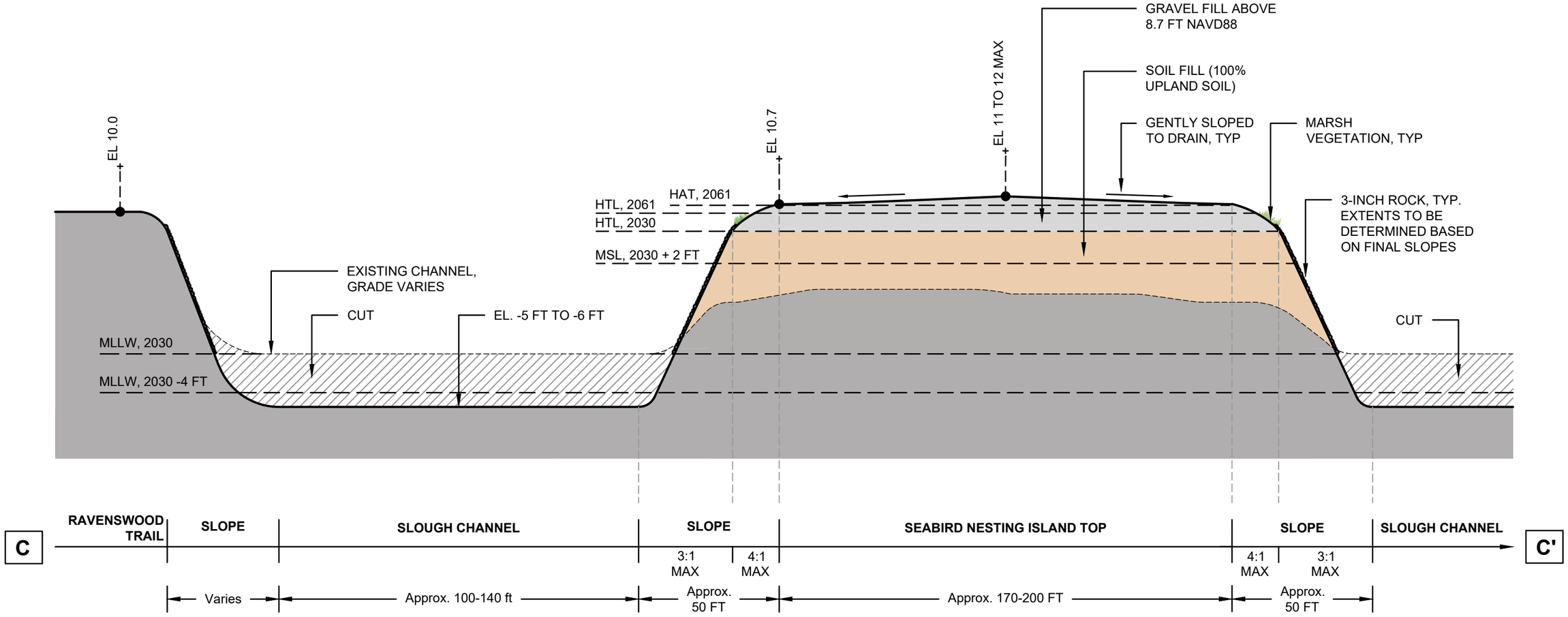
3.7.2 Overview

Caspian terns, elegant terns, and black skimmers currently breed on three islands within Pond SF2 cell U2, although historically, these species did not nest in this pond. Only Caspian terns and black skimmers sporadically nested in small numbers in other ponds within the Ravenswood Pond Complex (Cornell Lab of Ornithology 2024). In 2010, 30 islands were constructed in Pond SF2 as part of the SBSPRP Phase 1 activities. The islands were designed and built to provide habitat for numerous breeding and non-breeding bird species throughout the year.

In 2015, three circular islands in cell U2 were modified for a social attraction study lead by U.S. Geological Survey (USGS) and USFWS. The purpose of the study was to establish a Caspian terns colony on the islands by providing more attractive nesting habitat. This work included laying back island slopes to 4H:1V (or less), covering the islands in 0.4 inch diameter crushed rock to a depth of 18 inches, and placing 3 inch diameter rocks along the island perimeter to limit shoreline erosion (Hartman et al. 2019). Prior to the 2015, 2016, and 2017 breeding seasons, Caspian tern decoys and electronic audio playback systems were deployed on these three islands to aid in attracting Caspian terns to form a breeding colony on the islands. The study found that the total number of adults in the colony and maximum number of active nests increased during each successive year. Caspian terns formed dense colonies on Island 21, with 2.58–3.55 nests/square feet of active colony area, but only 0.32–1.61 nests/square feet of total island area. Although two of the islands were used by roosting adults and/or juveniles, and a fourth unenhanced island was also used by roosting adults, only two islands, Island 21 and Island 17, supported nesting. Island 17 supported one nest in 2015; otherwise all nesting activity each year occurred on Island 21. Collectively, this indicates that despite the colony growing during the study, the colony size was not constrained by the size of the islands. Since then, the colony size has continued to increase, reaching a peak of 350 breeding adults in 2023 (Cornell Lab of Ornithology 2024).

In addition to attracting Caspian terns to nest on the islands, at least 32 black skimmers were attracted to nest on the three enhanced islands in 2017 (Hartman et al. 2019, Cornell Lab of Ornithology 2024). Since then, they have continued to nest on the modified islands in most years, reaching a peak of 68 breeding adults in 2024 (Cornell Lab of Ornithology 2024). In 2019, elegant terns began nesting among the Caspian tern colony on Island 21, and aside from 2021, have nested each year on this island. They reached a peak of 345 breeding adults in 2024 (Cornell Lab of Ornithology 2024).

SECTION C-C'



NOTES

1. ALL ELEVATIONS AND SLOPE DESIGNATIONS ARE APPROXIMATE AND NOT TO SCALE. SECTION IS VERTICALLY EXAGGERATED FOR VISUAL CLARITY.

2. ALL ELEVATIONS ARE POST-SETTLEMENT. DESIGN OF A CIRCULAR WATERBIRD NESTING ISLAND WITH DIMENSIONS SHOWN RESULTS IN AN ISLAND TOP COVERING PPROXIMATELY 0.5 TO 0.7 ACRES.

TIDAL DATUMS

EL (2061)	EL (2030)	DATUM	
10.5	-	HAT	HIGHEST ASTRONOMICAL TIDE
9.9	8.7	HTL	HIGH TIDE LINE
-	3.9	MSL	MEAN SEA LEVEL
-	-1.1	MLLW	MEAN LOWER LOW WATER
0	0	NAVD88	NORTH AMERICAN VERTICAL DATUM OF 1988

EL	ELEVATION, NAVD88 FEET
H:V	HORIZONTAL:VERTICAL SLOPE RATIO

DRAWING NAME: G:\Work Products\Active Projects\3550, SAFER BAY\05, EIR Existing Cond\Graphics\Report Figures\Basis of Design-Habitat Restoration\WingDwg\3550-05_BirdNesting_CrossSection_20260409.dwg

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Figure 8. Seabird Nesting Island Cross Section

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3.7.3 Location, Size, Shape, and SLR Resilience

3.7.3.1 Location

The islands in Pond SF2 are surrounded by open water on all sides, with a minimum distance of 120 feet from the closest land accessible to mammals. This buffer acts as a barrier to mammalian predators that might target seabird adults, eggs, or chicks. To provide similar conditions, two new islands will be constructed in the southwest corner of Pond R1 (Figure 4). The proposed islands will build onto and enhance the function of two existing islands that have previously supported breeding black skimmers and Caspian terns are located (Cornell Lab of Ornithology 2024). This location is at least 120 feet from the nearest pond berm, levee, or tidal marsh and will therefore provide protection from mammalian predators.

3.7.3.2 Size

Since the three seabird species began nesting in SF2, they have used the three enhanced islands and one unenhanced circular island that collectively total 1.84 acres in size (Cornell Lab of Ornithology 2024). One of these islands, Island 21, has supported the Caspian and elegant tern colony each year, while black skimmers have nested on all three enhanced islands and an adjacent unenhanced circular island, although no more than two of these islands have been used for seabird nesting each year (Cornell Lab of Ornithology 2024). Therefore, creation of two large islands totaling at least 1.84 acres in tidal Pond R1 will accommodate the current size of these three species breeding colonies and will also allow for future colony growth. The total surface area of the gravel covered crests of the two islands will sum to at least 1.84 acres.

3.7.3.3 Shape

Two types of islands were constructed in Pond SF2 by the SBSPRP, including rounded islands with a low island-edge to island-area ratio, and more linear, long and rectangular islands that have a higher island-edge to island-area ratio (Hartman et al. 2019). USGS and USFWS elected to enhance rounded rather than linear islands because their lower island-edge to island-area ratio allows for the formation of circular colonies that are better able to defend themselves from avian predators and don't leave adults, eggs, and chicks at the ends of the colony vulnerable to predation. Although most of these island's perimeters are rounded, the southeastern sides of the islands have straight edges. They also have asymmetrical topography in which the northwestern facing (windward) slopes are shorter in length, creating a ridge that acts as a windbreak, resulting in calmer conditions for the larger leeward side of the island where Caspian terns and elegant terns have favored for colony establishment. In addition, the islands were graded to have a slope of 4H:1V or less to provide a relatively gentle slope suitable for nesting. Therefore, the gravel covered crests of the two seabird islands will be rounded, oriented and shaped to provide a windbreak, and will have a slope of 4H:1V or less to provide similar benefits to the colonies. As the design progresses, island shape, orientation to prevailing winds, and topography will be further optimized for seabird nesting.

3.7.3.4 SLR Resilience

Since the islands will be constructed in Pond R1, which will be opened to tidal action shortly after their construction, it is important that they are designed to an elevation such that island tops won't be inundated by tides. Therefore, the perimeter of the island tops will be built to an elevation of 10.5 feet NAVD88, which is the projected HAT in 2061. Islands will be built such that this target crest elevation is achieved after soil settlement and consolidation.

Being exposed to tidal action could render the island slopes vulnerable to erosion. USGS and USFWS addressed this issue in Pond SF2 cell U2 by lining the constructed islands with 3-inch diameter rocks (Hartman et al. 2019). Similarly, the islands constructed in Pond R1 will be lined with two layers of 3-inch diameter rocks extending from -0.1 to 9.1 feet, which represents 4 feet below MSL to 4 feet above MSL over the lifespan of the islands (2031 to 2061) (Figure 8). The design of erosion protection on side slopes will be refined as design development continues but will be sufficient to protect island slopes from erosion.

3.7.4 Nesting Island Channel Design for Mammalian Predator Deterrence

The area surrounding the islands should remain free of mudflats and/or vegetation that could facilitate mammalian predation of nesting seabird adults, eggs, or chicks. This will be accomplished by excavating tidal slough channels between and surrounding both islands. The location of the islands near the main breach will also facilitate maintaining the area surrounding the islands as deep water. One island will be located directly south of the pilot channel excavated to convey water from the breach into the largest historical slough channel in the pond, while the second island will be located south of this island. Section 3.3.4.2 provides the hydrologic basis of design for the nesting island channels.

3.7.5 Surface Treatment for Island Crests

Caspian terns, elegant terns, and black skimmers prefer nesting areas that are sparsely vegetated, often with sandy or gravel substrates. In 2015, USGS and USFWS treated the three enhanced islands in Pond SF2 with 0.4 inch size crushed rock to a depth of 18 inches to provide preferred nesting conditions (Hartman et al. 2019). Therefore, the crests of the islands will be covered with similar sized gravel to a minimum depth of 18 inches. Gravel cover will extend from the 2030 HTL to the island apex to cover the entire island crest and its 4H:1V slope. This will provide the preferred substrate for nesting and reduce the ability of vegetation to establish on the island.

The San Francisco Bay Bird Observatory (SFBBO) found that nesting islands constructed from bay mud in Pond SF2 formed large cracks in the summer when exposed to consistent warm temperatures (Robinson-Nilsen et al. 2011). These cracks were up to 3 inches wide, and both American avocet (*Recurvirostra americanus*) and WSP chicks were found deceased in them. Thus, semi-precocial seabird chicks could similarly fall into cracks in the islands built in Pond R1. Cracks in islands on Pond SF2 were treated by smoothing with heavy machinery, while similar islands in Pond A16 in the Alviso Complex of the Refuge were constructed with a mix of 50% bay mud and 50% upland fill to prevent cracking. Therefore, the soil fill portion of each island will be

constructed from either 100% imported upland soil or a mix of bay mud/imported upland soil that contains at least 50% imported upland soils. The soil fill will be compacted and smoothed with heavy machinery to prevent cracking. The use of imported upland soil will also reduce the amount of soil consolidation relative to bay mud. Approximately 2 feet of settlement was assumed for the volume estimate in Table 3. The amount of consolidation will be determined based on future import soil analysis.

3.7.6 Constraints to Public Access at Seabird Islands

Colonial nesting birds such as Caspian terns, elegant terns, and black skimmers are highly sensitive to human disturbance. Impacts due to human disturbance may include reduced breeding success, reduced likelihood nesting site fidelity, and in some cases, active colony abandonment (Carney and Sydeman 1999). Black skimmers have been shown to flush from nesting colonies at up to 426 feet, while royal terns (*Thalasseus maximus*), a species similar to both Caspian and elegant terns, were found to flush at a distance of 348 feet (Erwin 1989). Notably, both flush distances were observed on beaches where humans and mammalians predators can easily access the colony. Ground-nesting seabirds typically display greater wariness of human disturbance in areas with terrestrial access. Although there is no standard buffer for these species, Pacific Gas and Electric uses a buffer of 300 feet for both Caspian terns and black skimmers. As such, no human activity should be allowed on the R1 berm within 300 feet of the islands during the breeding season.

3.8 Pond R1/R2 Existing Loop Trail Modifications

3.8.1 Existing Loop Trail Modifications

A publicly accessible loop trail (Ravenswood Trail) currently exists on the berm crest around Ponds R1 and R2 (Figure 4). However, the two tidal restoration breaches would remove trail access to the bayshore segment of the loop trail in R1 unless bridges were constructed over the breaches. The option of constructing bridges over the breaches is not recommended for the following reasons:

- The bayshore berm at R1 between the two breaches is subjected to high wind wave energy and scour due to its location and orientation relative to the bay's prevailing winds. Wind wave erosion forces will likely increase with SLR. The Refuge has expended considerable effort/cost to maintain this berm segment thus far. High operations and maintenance costs in perpetuity would be necessary to continue to resist wind wave erosion at this location to preserve this trail segment (i.e., via repeated rock rip rap fill in the bay edge for slope protection combined with repeated base rock fill to increase berm heights with SLR).
- The long-term persistence of this berm segment is not necessary to achieve the SAFER Bay project's tidal habitat restoration goals at R1/R2. The berm will be left in place (not removed by the restoration project) to provide short/medium term wind wave protection which will allow sufficient time for vegetated tidal salt marsh to establish within R1.

- As noted above, human activity on the R1 berm should remain at least 300 feet from the constructed seabird islands located adjacent to the berm just south of the primary breach.

Therefore, the existing trail segment along the bayshore of Pond R1 will be decommissioned between the primary breach in the northwest corner of R1 and the secondary breach in the northeast corner of R1 (Figure 4). The decommissioned trail segment will be restored to T-zone habitat and allowed to naturally erode over time (see section below). The remainder of the trail will be converted to two spur trail segments as shown in Figure 4.

3.8.2 T-Zone Revegetation of Decommissioned Trail Segments

The decommissioned trail segments shown in Figure 4 will be converted to T-zone habitat along the crest of the R1 berm. T-zone habitat will be dominated by native and non-invasive salt marsh and alkali meadow plant species to provide high tide refugia habitat for tidal marsh wildlife in the restored tidal marsh. The existing trail substrate is highly compacted soil due to vehicle, bicycle, and pedestrian use. Most of the trail consists of terrestrial subsoil fill with low organic matter content imported by the Refuge to raise and stabilize the trail/berm.

No earthwork to alter topography is necessary to achieve the T-zone habitat goals at this location. T-zone habitat will be restored in the berm crest/trail with the following actions:

- Cross-rip to a depth of 1.5 feet to reduce surface soil compaction.
- Amend the upper 0.5 feet of surface soil to achieve at least 2% organic matter content (dry weight basis). Composted organic matter should be homogeneously mixed with surface soil, then the surface lightly compacted with LGP tracked equipment.
- Hydroseed or manually broadcast seed with alkali meadow native seed mix consistent with T-zone habitat shown (See Section 3.9).

3.9 High Tide Refugia Berms

3.9.1 Goals and Design Criteria

Mature tidal salt marshes include generously distributed patches of high marsh along the edges of sinuous slough channel networks. High marsh along slough channels establishes by tides repeatedly depositing sediment resulting in an elevated slough channel edge above the surrounding marsh plain. Native high salt marsh vegetation typically includes gumplant, a subshrub, as well as perennial pickleweed, alkali heath (*Frankenia salina*) saltgrass (*Distichlis spicata*), and other halophytes. Gumplant provides a woody structure that can grow 3–4 feet tall through which pickleweed and saltgrass arbor, creating dense, hummocky vegetation that remains above water during king tide events. Abundant high marsh habitat along dendritic slough channels provides ideal cover for SMHM, CRR and other resident marsh animals from raptors, gulls, ravens, and other species that predate on mice and rail during high tides.

Moreover, high marsh along slough channels provides dispersed high tide refugia habitat for SMHM and CRR across large tidal marshes where they forage (hereafter referred to as in-marsh refugia). For example, in-marsh refugia is relatively abundant and well dispersed throughout Laumeister Marsh, one of the few remaining natural marshes in the South Bay (H. T. Harvey 2023). By contrast, T-zone habitat provides high tide refugia habitat along the landward margin of marshes for these species. SMHM are limited in the distance they can disperse to find refugia cover during high tide events (Smith et al. 2014) and the chance of CRR being predated increases when they have to fly to find refugia at marsh edges during extreme high tide events (Overton et al. 2013). Therefore, high marsh along slough channels in addition to T-zones, are important components of providing sufficient refugia habitat to support the recovery of SMHM and CRR (H. T. Harvey 2023).

Tidal marsh vegetation will establish on the marshplain sufficiently to provide habitat for CRR and SMHM in Pond R1 and R2 within 10–20 years of breaching (Section 3.4). However, based on prior marsh restoration projects in subsided baylands in San Francisco Bay (e.g., at Cooley Marsh, Sonoma Baylands, Bair Islands), it can take many decades for high marsh to develop on its own (Philip Williams & Associates and Faber 2004). Moreover, given anticipated SLR, it's uncertain whether abundant high marsh will ever passively develop through sediment deposition along slough channel edges at Ponds R1/R2. Therefore, the SAFER project will construct a moderate number of high tide refugia berms along slough channel edges in Pond R1 and R2 to provide in-marsh refugia for SMHM, CRR and other resident marsh animals; approximate locations of the high tide refugia berms are shown in Figure 4). In addition, the project will enhance the existing internal berm between Pond R1 and R2, which is already largely at a suitable elevation for high marsh through seeding, to provide additional in-marsh refugia; the internal R1/R2 berm to be enhanced is shown in Figure 4. We judge that the in-marsh refugia will be most valuable after marsh plain vegetation has established. Given that sea level will rise between the time when the ponds are breached (2031) and the time when the marsh plain will vegetate, the berms have been positioned slightly higher than the optimal elevation for refugia in 2031 to set optimal conditions for high marsh vegetation on the berms once marsh plain vegetation establishes.

The high tide refugia berms and R1/R2 internal berm enhancement designs are based on the following criteria:

- Provide dense high marsh vegetation adjacent to slough channels at locations distributed across Ponds R1 and R2 to provide high tide refugia habitat for CRR, SMHM and other resident marsh animals.
- High marsh vegetation should extend 1–2 feet above the elevation of king tides starting approximately 5–10 years after breach (i.e., to coincide with the time when the R1/R2 marsh plain has accreted some sediment and begins to naturally vegetate with cordgrass and pickleweed).
- High marsh vegetation on berms should include, at minimum gumplant and pickleweed to provide suitable vegetation structure on islands.
- Refugial berms should be revegetated shortly after construction to avoid creation of cracks on berm tops and to minimize the availability of bare ground which may act as an ecological trap. WSP may be attracted to nest in seemingly suitable breeding habitat that would be periodically overtopped by higher tides, resulting in the failure of nests.

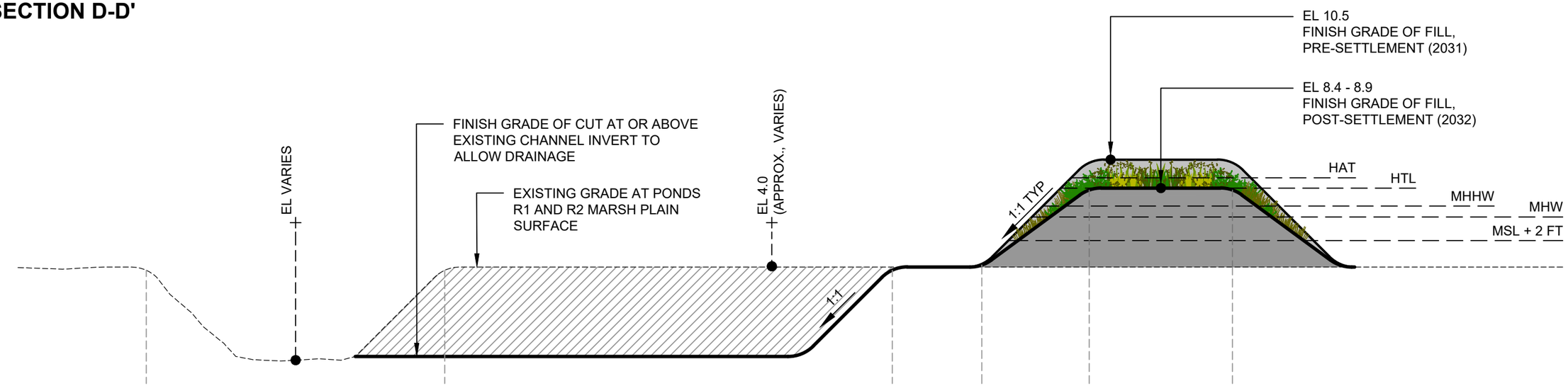
3.9.2 Size, Location, and Construction Approach

Figure 4 provides the approximate locations of the high tide refugia berms to be constructed in Pond R1/R2 and shows the location of the existing internal R1/R2 berm to be enhanced. Figure 9 provides a conceptual cross section of a refugia berm at construction - and after settlement and high marsh vegetation establishment. The berms will be constructed using in-situ bay mud excavated in Pond R1/R2 or with bay mud spoils from pilot slough channel excavation in Pond R1/R2. Most berms will be constructed to be approximately 35 feet long with a base 16–20 feet wide and a top 4–8 feet wide. A subset of berms will be between 160 and 300 feet long (same base and top) as shown in Figure 4. The shorter berms (35 feet) will provide ample refugia habitat to conceal CRR, which could use the berms simultaneously. The longer berms, in addition to providing refugia, are longer to break up wind-waves, thereby improving conditions for sediment accretion and salt marsh seedling establishment on the leeward marsh plain.

Figure 9 shows a typical refugia berm cross section assuming that the berm is constructed using in-situ bay mud excavated from the adjacent slough channel. In cases where bay mud spoils from pilot slough channel construction or levee excavation are used to build the berm, the berm should be situated approximately 5 feet from the existing slough channel edge, rather than the expanded slough channel edge shown in Figure 9. Refugia berms will be constructed with initially steep side slopes (approximately 1H:1V) and with the berm top set to elevation 10.5 feet NAVD88. Side slopes will become slightly less steep with settlement. Based on H. T. Harvey restoration ecologist's monitoring of over 60 refugia berms (or islands) constructed in San Francisco Bay marshes, refugia berms typically settle/consolidate after construction approximately 25–33% of their height at construction (H. T. Harvey 2021a). Therefore, post-settlement, refugia berms are expected to settle to approximately 8.4 to 8.9 feet NAVD88, which corresponds to a berm top between approximately 1.0 to 1.5 feet above MHHW in 2031. At breach, these elevations are appropriate for high marsh vegetation such as pickleweed and gumplant (H. T. Harvey 2021a). High marsh vegetation canopy will extend above the berm top to approximately 10.5–11.5 NAVD88, providing 1.5 to 2.5 feet of vegetation cover above the height of king tides (king tide elevation is estimated as the HAT, approximately 9 feet NAVD88 in 2031). As sea level rises, the berms will remain positioned to provide high marsh vegetation until MHHW increases to above the height of the berm.

The two proposed breaches in the existing internal R1/R2 berm shown in Figure 4 (East Interior Breach and West Interior Breach) will discourage access by land-based predators to the R1/R2 berm during extreme high tide events. Otherwise, the topography of internal R1/R2 berm will not be modified, as the current elevation is appropriate to establish high marsh vegetation with equivalent resilience to SLR as the high tide refugia berms. Vegetation will be established on the R1/R2 berm as described below.

SECTION D-D'



D	MARSH PLAIN	EXISTING SLOUGH CHANNEL	CUT: EXPANDED SLOUGH CHANNEL	MARSH PLAIN	FILL: HIGH TIDE REFUGIA BERM			MARSH PLAIN	D'
					Slope	Top of Berm	Slope		
			25 FT max (See Note 2)	Approx. 5 FT	Varies Approx. 6 FT	4 to 8 FT (See Note 1)	Varies Approx. 6 FT		

NOTES

1. WIDTH OF REFUGIA BERM TO BE DETERMINED BY AVAILABLE FILL MATERIAL. CONSTRUCT ISLAND TO THE MAXIMUM WIDTH POSSIBLE WITHIN THE DIMENSIONAL CONSTRAINTS SHOWN ON THIS FIGURE.
2. WIDTH OF CUT VARIES AS REQUIRED TO GENERATE SUFFICIENT FILL MATERIAL TO CONSTRUCT REFUGIA BERM. WIDTH AND DEPTH OF CUT TO NOT EXCEED CONSTRAINTS SHOWN ON THIS FIGURE.

TIDAL DATUMS IN 2031

EL	DATUM	
8.99	HAT	HIGHEST ASTRONOMICAL TIDE
8.41	HTL	HIGH TIDE LINE
7.41	MHHW	MEAN HIGHER HIGH WATER
6.8	MHW	MEAN HIGH WATER
3.48	MSL	MEAN SEA LEVEL
-1.2	MLLW	MEAN LOWER LOW WATER
0	NAVD88	NORTH AMERICAN VERTICAL DATUM OF 1988

EL ELEVATION, NAVD88 FEET
H:V HORIZONTAL:VERTICAL SLOPE RATIO

DRAWING NAME: \\nthnas\Company Share Folder\Work Products\Active Projects\3550, SAFER BAY\05, EIR Existing Cond\Graphics\Report Figures\Basis of Design\WkngDwg\3550-05_HighTideRefugia-CrossSection_20250211.dwg

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Figure 9. High Tide Refugia Berm, Conceptual Cross Section

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3.9.3 Seeding Plan

Following earthwork, the tops of high tide refugia berms down to MHHW will be seeded with the seed mix shown in Table 4. Seed application is planned (instead of relying only on natural seed dispersal) because the island tops will be at or above the HTL, making opportunities for seed dispersal and marsh plant seed recruitment potential to the berm tops initially low. Rapid revegetation is necessary to avoid attracting WSP to nest on these berms that would otherwise function as ecological traps when high tides overtop the berm and cause nest failure. To speed up vegetation establishment on the berm top, a native high marsh seed mix will be applied. Seedling germination on island tops will be triggered by a combination of rainfall and bay water, but bay water will need to sustain seedlings through subsequent dry seasons. Therefore, seed will be applied to refugia berms during the same construction season that Pond R1/R2 is breached and between September 1 and November 1 to reduce seed predation and mortality prior to the rainy season. Seed will be applied via manual broadcast seeding on the refugia berms. Seed will be raked into the upper ¼ inch of the refugia berm soil surface according to the seed rates in Table 4.

Similarly, plant recruitment on the existing internal Pond R1/R2 berm top is expected to occur slowly since portions of the berm top are above the current HTL. Therefore, the R1/R2 berm top will also be seeded down to MHHW at the same time as seed is applied for high tide refugia berms. The R1/R2 berm was generated by excavating bay mud decades ago and like other excavated bay mud derived soils in the South Bay, the berm soil is likely acidic and hypersaline (H. T. Harvey 2020). Therefore, topsoil salinity and acidity will be improved via an organic compost amendment to increase seeding germination and establishment rates. Two vertical inches of organic compost amendment will be incorporated into the upper 6 inches of the internal R1/R2 berm soil above MHHW prior to seeding. In addition to diluting soil pH and salinity in the upper 6 inches, organic matter will increase water holding capacity of the soil, water infiltration and soil fertility, which will encourage seed establishment and plant growth. Following incorporation of organic amendment, seed will be applied via hydroseed or manual broadcast seed methods according to the seed rates in Table 4.

Table 4. Seed Mix for High Tide Refugia Berms and Internal R1/R2 Berm

Botanical Name	Common Name	Hydroseed Application Rate (Pounds of Pure Live Seed per Acre)	Broadcast Seed Application Rate (Pounds of Pure Live Seed per Acre)
Frankenia salina	Alkali heath	1.0	0.5
Grindelia stricta	Marsh gumplant	2.5	1.75
Salicornia pacifica	Perennial pickleweed	0.5	0.5

3.10 T-Zone in R2

3.10.1 Goals and Design Criteria

At Pond R2, a 10H:1V T-zone will be constructed between the restored marsh in Pond R2 and the adjacent 3H:1V earthen levee planned for construction through the Substation and Marsh Restoration reach (Figure 4).

The T-zone is a distinct type of ecotone habitat located on gentle slopes between tidal salt marsh and adjacent uplands. T-zones were historically abundant along tidal marshes adjacent to lowlands in the San Francisco Bay and broad T-zone habitat previously existed in the South Bay (Beller et al. 2013). Today, the T-zone around San Francisco Bay marshes consists almost entirely of a narrow area between the high marsh and steep artificial levee faces (Collins and Goodman-Collins 2010). The SAFER project provides a rare opportunity to increase the amount of low-gradient T-zone habitat along the Ravenswood Slough marshes. Including restoration of T-zone habitat adjacent to tidal marshes is recommended by several guidance documents including the *Salt Marsh Harvest Mouse and California Clapper Rail Recovery Plan* (USFWS 1984), the *Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California* (USFWS 2013), *Living with a Rising Bay: Vulnerability and Adaptation in San Francisco Bay and on its Shoreline* (BCDC 2011), the *Baylands Ecosystem Habitat Goals* (Monroe et al. 1999), and *The Baylands and Climate Change: What We Can Do* (Goals Project 2015). This is primarily because:

- In the absence of adequate in-marsh high tide refugial habitat, T-zones are essential for the survival and recovery of the SMHM and CRR because they provide refugia from predators during high tides (USFWS 1984, 2013; Shellhammer et al. 2010). T-zones are most critical during extreme high tide events when tidal marshes are inundated, and predation pressure is highest (Overton et al. 2013).
- T-zones foster high plant and animal community diversity and in some parts of the Bay area provide essential habitat for endangered marsh plants, including salt marsh bird's beak (*Chloropyron molle* ssp. *molle*) and California sea blight (*Suaeda californica*) (USFWS 2013, Monroe et al. 1999).
- T-zones increase the habitat diversity and biodiversity (including a higher number of species) of the tidal marsh edge because plant and animal communities overlap along the hydrologic gradient provided within a broad T-zone (Goals Project 2015).
- Broad, gentle T-zones provide accommodation space for the landward transgression of tidal marsh with SLR (BCDC 2011).

For the SAFER Bay project, the T-zone is defined as salt marsh and adjacent upland habitat between MHHW and the top of the levee that provides space for refugia habitat and marsh transgression with SLR. At the low end of this elevational range (MHHW), the T-zone begins where high marsh vegetation such as gumplant and robust pickleweed typically establish at the marsh-upland edge of salt marshes and provide refugia habitat. At the high end, the T-zone includes the upland levee slope above the current reach of tides that will eventually become exposed to tidal influence and convert to marsh with long-term future SLR.

Studies have identified specific ecotone elements in T-zones that benefit wildlife. Point Blue Conservation Science (2018) found that grass cover and areas of vertical canopy at least 3 feet tall on T-zones were associated with increased CRR population trends. Similarly, T-zones with at least 15% dense vegetation taller than 1 foot exhibited increased use by the tidal marsh song sparrow (*Melospiza melodia*), a species of special concern. More open T-zone vegetation was found to benefit the Savannah sparrow (*Passerculus sandwichensis*). T-zones wider than 75 feet were associated with positive trends in the adjacent tidal marsh bird population (Point Blue Conservation Science 2018). Based on direct observation of avian predators foraging during king tides, H. T.

Harvey's wildlife ecologists judge that a 30-foot-wide T-zone with dense vegetation provides meaningful high tide refugia habitat to protect SMHM and CRR during high-tide predation events.

T-zone construction that requires fill in tidal marshes should consider the benefits of T-zone creation relative to the loss of tidal marsh extent necessary for T-zone creation. In relatively small marshes that already have abundant in-marsh refugia habitat (e.g., Faber Marsh, Laumeister Marsh), H. T. Harvey concluded that broad T-zones should not be constructed at the expense of tidal marsh (H. T. Harvey 2023). T-zone construction at Pond R2 would require fill in existing pond/aquatic habitat along the bayward edge of the SAFER levee. While no existing tidal marsh would be impacted, the T-zone would occupy space that would eventually establish tidal salt marsh after breaching and sediment accretion. Construction of a moderately wide T-zone is warranted at this location, rather than a restored tidal marsh with a narrower T-zone on a 3H:1V levee slope because:

- Ponds R1/R2 are subsided and lack natural in-marsh refugia. Therefore, construction of both a T-zone and in-marsh refugia (see Section 3.8) are recommended to provide adequate refugial habitat for SMHM and CRR in R1/R2.
- The restored marsh in Pond R1/R2 will be extensive (approximately 576 acres). By contrast, approximately 4 acres of area (0.7%) that would otherwise be restored to marsh will be filled for T-zone creation. In our judgment, the loss of a small area of future restored marsh is an appropriate trade-off for the ecological benefits of a T-zone.

Given the above considerations, the T-zone in R2 has the following goals:

- Minimize conversion of R2 to upland while providing an adequately sized T-zone with suitable high tide refugia cover to benefit SMHM and CRR, provide a modest upslope area for marsh transgression with SLR, increase habitat diversity, and resist wind wave scour.
- Design a cost-effective T-zone of adequate width and height to provide suitable high tide refugia habitat through the project's design life (to accommodate 3 feet of SLR); given the volume of fill needed for T-zones, this restoration feature is a high-cost item and should be designed to be both ecologically functional and cost-effective.
- Establish a diverse assemblage of flowering plants with varying phenology to benefit pollinators and provide food web support for birds.

The following design criteria are established to meet these goals:

- Construct a 10H:1V T-zone slope to provide at least 30 feet of high-quality T-zone vegetation above the HTL after 3.0 feet of SLR (at breach in 2031 that equates to an approximately 80-foot-wide T-zone).
- Establish dense, native vegetation that includes both substantial area of vegetation patches with vertical canopy at 2–4 feet tall for high tide refugia cover and areas of grassland at least 1 foot tall.

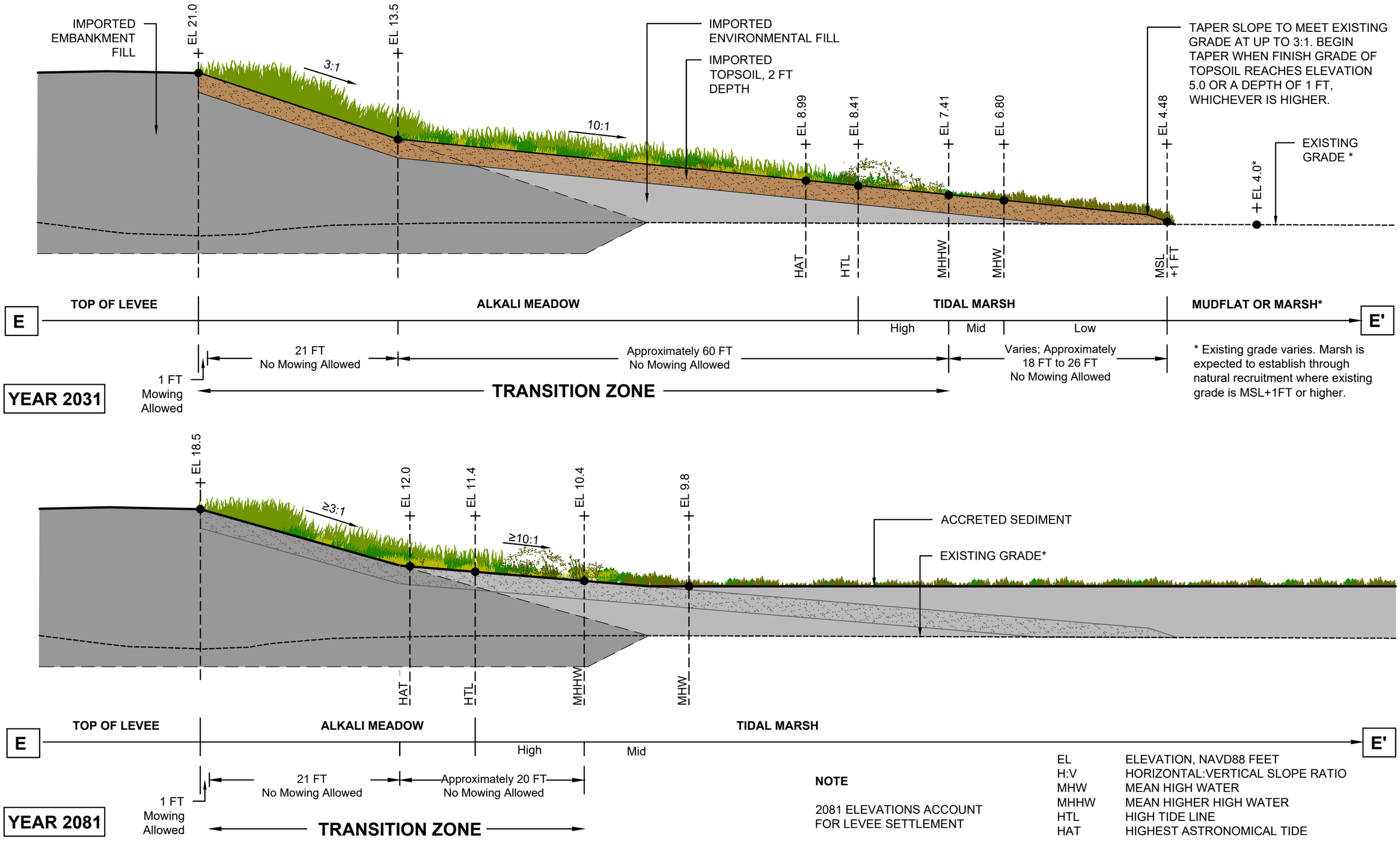
- No shrubs or trees over 5 feet tall to minimize creation of avian predator perches.
- Control invasive plants on the T-zone where vegetation structure is necessary to achieve the habitat high-tide refuge goal.

3.10.2 Ecotone Slope and Earthwork

A cross section showing the slope and target habitats on the T-zone is provided in Figure 10 for Year 2031 (at breach) and Year 2081 with SLR. The T-zone slope will be built following completion of construction of the engineered levee with its 3H:1V slopes. The T-zone slope will be constructed starting at elevation 13.5 feet NAVD88 descending at a 10H:1V slope down to approximately elevation 5 feet NAVD88; which is approximately the lowest elevation for low marsh vegetation establishment. At either elevation 5 feet NAVD88 or when the T-zone slope is 1 foot above the Pond R2 surface (whichever is first), the T-zone slope will transition to a 3H1:1V slope down to meet the existing Pond R2 grade (Figure 10). A 10H:1V slope was selected because it will initially provide an ample area of T-zone (80 feet wide) at breach and will provide 40 feet of T-zone after 3 feet of SLR anticipated by 2081. The T-zone slope will be actively revegetated to provide dense alkali meadow habitat from where the T-zone meets the levee down to the HTL. Tidal salt marsh will be established through a combination of planting, seeding and natural recruitment between MHHW and HTL. Marsh plant recruitment from seed after breach will establish tidal marsh habitat from MHHW down to approximately 1 foot above MSL.

Imported soil (rather than salvaged bay mud) will be used to construct the upper 2 feet of the T-zone. Salvaged bay mud is not suitable for use in the upper 2 feet of the T-zone because bay mud excavated from saline marshes have high salinity, high boron, and potential for very low pH, making it unsuitable to support the target upland T-zone habitat (H. T. Harvey 2021b). To support dense grassland and alkali meadow habitats (Figure 10), imported fill soil can have a broad range of suitable physical and chemical soil which will make such fill practical and cost-effective for a contractor to source.

The upper 2 feet of fill soil on the T-zone (and the upper 2 foot of fill soil on the levee slope above elevation 13.5 feet NAVD88) will meet the criteria for topsoil (Table 5). At depths below the upper 2 feet of topsoil on the T-zone, no horticultural criteria are necessary for imported environmental fill as T-zone plant roots are expected to root mostly in the upper 2 feet. Additionally, all imported soil will be required to meet contaminant screening criteria to protect sensitive ecological receptors. The Refuge's Master Quality Assurance Project Plan (Master QAPP; USFWS and H. T. Harvey 2024b) provides screening methods for soil contaminants in imported upland soil used in the Refuge's wetland environments, including levee slopes and T-zones. Imported topsoil in Pond R2 (which is within the Refuge) will be required to meet the Wetland Surface Criteria in the Master QAPP. Environmental fill soil below the topsoil layer will be required to meet the Wetland Surface Criteria in the Master QAPP or Wetland Foundation Criteria with approval from RWQCB and BCDC.



NOTE

2081 ELEVATIONS ACCOUNT FOR LEVEE SETTLEMENT

EL	ELEVATION, NAVD88 FEET
H:V	HORIZONTAL:VERTICAL SLOPE RATIO
MHW	MEAN HIGH WATER
MHHW	MEAN HIGHER HIGH WATER
HTL	HIGH TIDE LINE
HAT	HIGHEST ASTRONOMICAL TIDE

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Figure 10. Year 2031 vs Year 2081 Pond R2 Transition Zone Cross Section

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Table 5. Imported Topsoil Criteria for Upper 2 Feet of 10H:1V Transition Zone in Pond R2

Physical Properties	
Particle Size Range	**Percent**
Coarse sand .5–2.0 millimeters	0–85
Silt 0.002–0.05 millimeters	0–85
Clay 0–0.002 millimeters	0–80
Gravel 2–12 millimeters	0–25
Rock 12mm–<3 inches	0–10 by volume
Organic matter	2–5 by dry weight basis
Chemistry[1]	
Salinity	Less than 5.0 deciSiemens per meter
Sodium adsorption	Less than 6.0
Boron	Less than 1.5 ppm
pH of saturated paste	5.5–8
Calcium:Magnesium ratio	greater than 1:1

[1] Additionally, all imported soil (topsoil and subsoil) used to construct this transition zone meet the Wetland Surface Criteria in the Master Quality Assurance Project Plan (USFWS and H. T. Harvey 2024).

3.10.3 Target Habitats

Salt marsh-upland edges lacking fresh groundwater are typically vegetated with dry alkali meadow plant communities above HTL. Mixed coastal scrub also occurs along hillslopes and well-drained soils at the bay edge (Baye 2008). Native vegetation will be established to meet the goals in the section above. The target plant palette for the T-zone is native species typical of dry alkali meadow plant communities combined with forbs and coastal scrub subshrubs that have been successfully used in T-zone habitat restoration to benefit SMHM and CRR in the SAFER Project area (H. T. Harvey et al. 2025, H. T. Harvey 2025).

Following breach, the lower elevation portion of the T-zone will be naturally colonized by a mix of tidal salt marsh plants, such as Pacific cordgrass, perennial pickleweed, saltgrass and marsh gumplant from MSL +1 foot to HTL. Above the HTL (8.4 feet NAVD88) up to 13.5 feet NAVD88, active revegetation will be implemented to establish native-dominated alkali meadow on the T-zone interspersed with patches of coastal scrub. Alkali meadow will include perennial salt-tolerant, rhizomatous grasses such as saltgrass, creeping wildrye (*Elymus triticoides* var. *Yolo*), and red molate fescue (*Festuca rubra* var. *molate*), and salt-tolerant perennial forbs such as alkali heath, yarrow (*Achillea millefolium),* Menzies' fiddleneck (*Amsinckia menziesii*) and western ragweed (*Ambrosia psilostachya*). The herbaceous vegetation will be interspersed with taller patches of perennial forbs and woody subshrubs such as marsh gumplant, marsh baccharis (*Baccharis glutinosa*), marsh aster (*Symphiotrichum subulatum*), and mugwort (*Artemesia douglasiana*). Coastal scrub patches will be established to increase habitat structure, diversity, and resilience to weed invasion. Coastal scrub patches will be dominated by drought-tolerant, medium statured woody shrubs such as lizard tail (*Eriophyllum staechadifolium)* and sticky monkey flower (*Mimulus aurantiacus*).

3.10.4 Topsoil Preparation

Prior to seeding and planting, the upper 6 inches of topsoil may be amended to meet the horticultural criteria in Table 5. For example, if terrestrial subsoil is imported for use as topsoil, a compost amendment will likely be needed to meet the organic matter requirement; in that case the compost amendment will facilitate formation of soil structure and increase water holding capacity to support robust alkali meadow vegetation. The upper foot of topsoil will be decompacted prior to planting.

3.10.5 Revegetation Timing

Presence of non-native and invasive plants can restrict native plant establishment. Therefore, seeding and planting should occur immediately after T-zone earthwork is complete, regardless of whether Pond R1/R2 is breached concurrently, so that native revegetation occurs prior to substantial weed establishment. This will reduce vegetation maintenance effort and cost.

3.10.6 Irrigation Plan

Container plantings will be watered in at installation. A sprinkler irrigation system or similar method will be used to keep ecotone soils moist during the first winter after seeding to encourage robust seedling recruitment. Irrigation will be used to supplement rainfall and establish T-zone plants during the first 3 years after planting/seeding.

3.10.7 Seeding Plan

Following earthwork and soil preparation, the T-zone from 13.5 feet NAVD88 down to MHHW will be hydroseeded or manually broadcast seeded with the native alkali meadow seed mix shown in Table 6. In the same construction season following this initial seeding, coastal scrub will then be manually broadcast seeded in patches using the seed mix in Table 7. Seeding in patches is designed to limit the broader colonization of the space by these competitive shrubs and thereby foster higher species diversity. The size and density of seeded patches will be determined during a future design phase. Coastal scrub patch seed will be raked into the upper ¼ inch layer of soil. These species germinate readily from seed. Seeding will take place during the timing window and using the methods described in Section 3.8.3.

3.10.8 Planting Plan

In addition to seed, container plantings in monospecific species patches (Table 8) will be installed throughout the T-zone. The size and density of patches will be determined during a future design stage. Monospecific patches include species that are rhizomatous/stoloniferous (except for marsh gumplant) and typically grow as dense patches in natural systems. Additionally, because these species form dense patches, this planting design will also reduce the establishment of invasive species. Marsh gumplant is a key component of T-zone vegetation structure and is therefore included in Table 8. The container plants will be installed between November 1 and January 31 to maximize plant exposure to wet conditions during the rainy season.

Table 6. Alkali Meadow Seed Mix

Scientific Name	Common Name	Broadcast Seed Application Rate PLS/ac (lbs)	Hydroseed Seed Application Rate PLS/ac (lbs)	Approximate Maximum Rooting Depth (Inches)[1]	Approximate Maximum Height Above Ground (Inches)[1]
Forbs					
Achillea millefolium	Yarrow	0.5	0.75	9	36
Amsinckia menziesii	Menzies' fiddleneck	0.5	1	6	48
Artemisia douglasiana	Mugwort	0.25	0.75	24	100
Calandrinia menziesii	Red maids	0.5	1	12	12
Castilleja densiflora	Dense flower owls clover	0.5	1	11	16
Collinsia heterophylla	Purple Chinese houses	0.5	1	12	18
Eschscholzia californica	California poppy	1	2	12	24
Lasthenia californica	California goldfields	0.5	1	10	16
Lasthenia glabrata	Yellow rayed goldfields	0.25	0.5	12	24
Layia platyglossa	Tidy tips	0.5	1	6	24
Lupinus bicolor	Miniature lupine	1.5	2.5	24	16
Ranunculus californicus	California buttercup	0.5	1	6	28
Sisyrinchium bellum	Blue eyed grass	0.75	1.5	12	24
Grasses					
Bromus carinatus	California brome	5	7	NA	60
Elymus glaucus	Blue wildrye	5	6	NA	60
Elymus triticoides (var. Yolo)	Creeping wildrye	6	10	NA	48
Festuca microstachys	Small fescue	2.5	3.5	NA	30
Festuca rubra var. molate	Red molate fescue	3	4	NA	24
Hordeum brachyantherum var. salt	Meadow barley	6	8	NA	36

Scientific Name	Common Name	Broadcast Seed Application Rate PLS/ac (lbs)	Hydroseed Seed Application Rate PLS/ac (lbs)	Approximate Maximum Rooting Depth (Inches)[1]	Approximate Maximum Height Above Ground (Inches)[1]
Hordeum depressum	Alkali barley	3	4	NA	24
Stipa pulchra	Purple needlegrass	2	3	NA	40
Total		**40.25**	**60.5**		

Notes: PLS = pure live seed, ac = acres, lbs = pounds, NA = Not Applicable because no variance is required for grasses.

[1] Data on maximum rooting depth and height above ground sourced from the following sources: Calscape 2025, H. T. Harvey 2019, Las Pilitas Nursery 2025, Montalvo et al. 2017, DOI and Santa Monica Mountains National Recreation Area 2025, Foxx and Tierney 1987. No rooting information was available for mugwort, red maids, purple Chinese houses, or miniature lupine; rooting depths based on professional judgement.

Table 7. Coastal Scrub Patch Seed Mix in Transition Zone

Scientific Name	Common Name	Broadcast Seed Application Rate PLS/ac (lbs)	Approximate Maximum Rooting Depth (Inches)[1]
Eriogonum fasciculatum	California buckwheat	2.0	59
Eriophyllum staechadifolium	Lizard tail	1.5	20
Mimulus aurantiacus	Sticky monkey flower	0.2	60
Total		**3.7**	

Notes: PLS = pure live seed, ac = acres, lbs = pounds.

[1] Data on maximum rooting depth sourced from the following sources: California Native Plant Society 2025, Montalvo and Beyers 2010, The Nature Conservancy 2025. No rooting information was available for lizard tail; rooting data provided is for a closely related species, *Eriophyllum confertiflorum*.

Table 8. Transition Zone Monospecific Patch Plant Palette

Elevation Range (Feet NAVD88)	Scientific Name	Common Name	On-Center Spacing in Patches (Feet)
9–13	*Ambrosia psilostachya*	Western ragweed	3
9–13	*Baccharis glutinosa*	Marsh baccharis	3
8–10	*Distichlis spicata*	Saltgrass	2
9–13	*Elymus triticoides*	Creeping wildrye	2
8–10	*Frankenia salina*	Alkali heath	3
8–10	*Grindelia stricta*	Marsh gumplant	3
9–13	*Scrophularia californica*	California bee plant	3
9–13	*Symphiotrichum subulatum*	Marsh aster	3

Section 4.0 Pond SF2 WSP Habitat Enhancements

4.1 Goals and Design Criteria

Pond SF2 currently provides WSP nesting, foraging, and roosting habitat in cell U3 (Pearl et al. 2023). The goal of the WSP enhancement design in SF2 is to support a greater number of breeding WSP by increasing the amount of suitable habitat in the pond, implementing several enhancements, and reducing predation pressure. Moreover, the location of the SAFER levee (between cells U1 and U2) was selected to provide durable, long-term coastal flood protection of enhanced WSP breeding (Figure 11).

The criteria guiding this WSP habitat enhancement design include:

- Provide durable, long-term coastal flood protection to the enhanced WSP habitat in cells U2, U3, and U4.
- Reconfigure cells U2, U3, and U4 into one contiguous pond for WSP habitat.
- Increase crypsis on the pond bottom via deployment of a surface substrate treatment.
- Widen the borrow ditch surrounding the pond bottom to reduce mammalian predator access to the pond bottom.
- Add avian perch deterrents to power towers, where feasible, to reduce the ability of avian predator to perch and hunt from them.
- Increase funding for predator management activities designed to support WSP breeding.

Figure 11 illustrates enhancements needed to improve crypsis and reduce the ability of both avian and mammalian predators to hunt in the ponds. Figure 12 provides a cross-section to further describe vertical and horizontal relationships between the enhancement plan elements for the reconfigured Pond SF2.

4.2 Overview

In 2010, Pond SF2 was reconfigured as part of Phase 1 actions of the SBSPRP. This reconfiguration turned the pond, which had been a single contiguous former salt production pond, into four distinct cells separated by berms and hydraulically connected via a combination of weirs and culverts. The cells were designed to provide three distinct habitats for birds. In two of the cells, U1 and U2, a total of 30 nesting islands were constructed, and the rest of the pond is shallowly flooded to provide foraging and roosting habitat for breeding, migrating, and roosting seabirds, shorebirds, and waterfowl. Water enters the system from the bay via an intake water control structure in U1. One of the cells, U3, is designated by USFWS as WSP critical habitat, and was not significantly modified from pre-project conditions to continue to provide breeding, roosting, and foraging habitat for WSP (USFWS 2012a). The only substantial change that was made to this cell was adding water

management via both an intake and discharge weir in the pond. The fourth cell, U4, is managed as deeper water, providing roosting and foraging habitat for waterfowl. This cell also collects water from the other three cells via weirs and culverts and contains a water control structure that discharges to the bay.

Since reconfiguration, there has been a high degree of interannual variation in use of cell U3 by WSP for breeding, with the amount of nesting inversely correlated to availability of nesting habitat in other ponds in the Ravenswood Complex. In 2021, when a large amount of suitable habitat was available in Ravenswood Ponds R1, R2, R3, and R4, only three WSP nests were documented in cell U3 (Pearl et al. 2022). Conversely, in 2017 when high levels of precipitation resulted in no breeding habitat available in Ponds R1 and R2 and minimal habitat available in Ponds R3 and R4 at the start of the breeding season, cell U3 supported 32 WSP nests (Pearl and Chen 2018). It was hoped that WSP might utilize the nesting islands in cells U2 and U3, and indeed the USGS and USFWS social enhancement project set out several WSP decoys on the islands. However, apart from several nests in 2011 and 2012, WSP have avoided using these areas for breeding, roosting, or foraging (Robinson-Nilsen et al. 2011, Donehower et al. 2013; Pearl and Chen 2018). In addition, although some of the islands are used by breeding birds, and more are used by non-breeding birds, many of the islands remain vacant. With the loss of WSP breeding habitat in Ponds R1 and R2 due to tidal marsh restoration for this project, enhancement of cells U2, U3, and U4 provides an opportunity to adequately offset the loss of WSP habitat and support their recovery. The following sections describe the basis of design for SAFER Bay's proposed WSP habitat enhancements in SF2.

4.3 Earthwork

4.3.1 Berm, Island, and Pond Bottom Grading

The primary component of earthwork in Pond SF2 involves creating contiguous WSP habitat by connecting cells U2, U3, and U4. To accomplish this, the berms separating U2, U3, and U4 will be removed. Soil from the berms will be used to fill the interior borrow ditch west of the berm between U2 and U3 and extend the pond bottom in U4 by approximately 280 feet. The islands in U2 will be graded down to the elevation of the surrounding pond bottom, and soil from the islands will be used to fill pilot channels surrounding the islands. In U3, two low elevation areas will be raised to match the elevation of the surrounding pond bottom. If necessary, excavated bay mud from construction of the SAFER levee between U1 and U2 may be used for fill to accomplish these goals. Grading will include slight crowning to limit ponding.

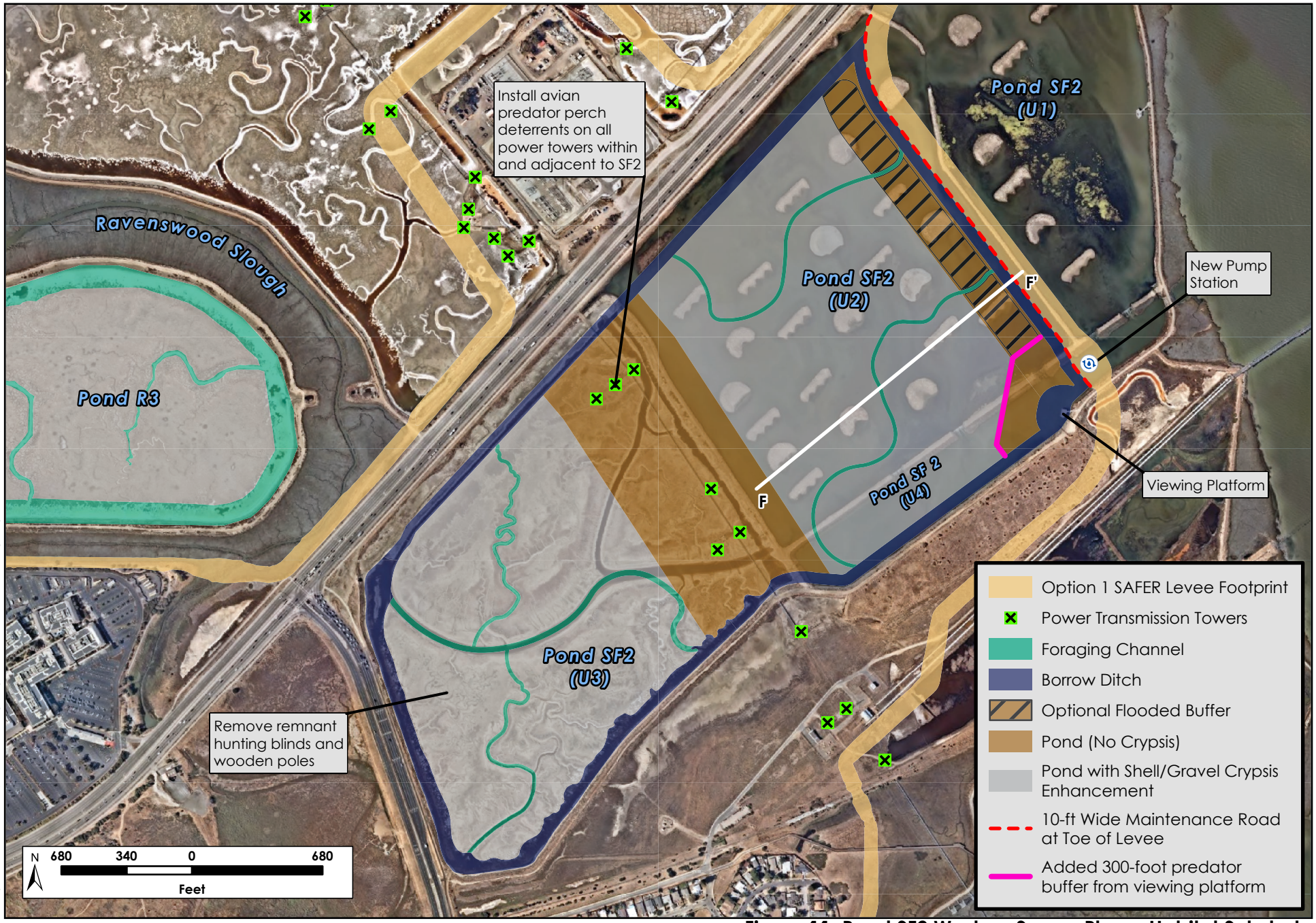

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Figure 11. Pond SF2 Western Snowy Plover Habitat Substrate and Predator Deterrent Enhancement Plan

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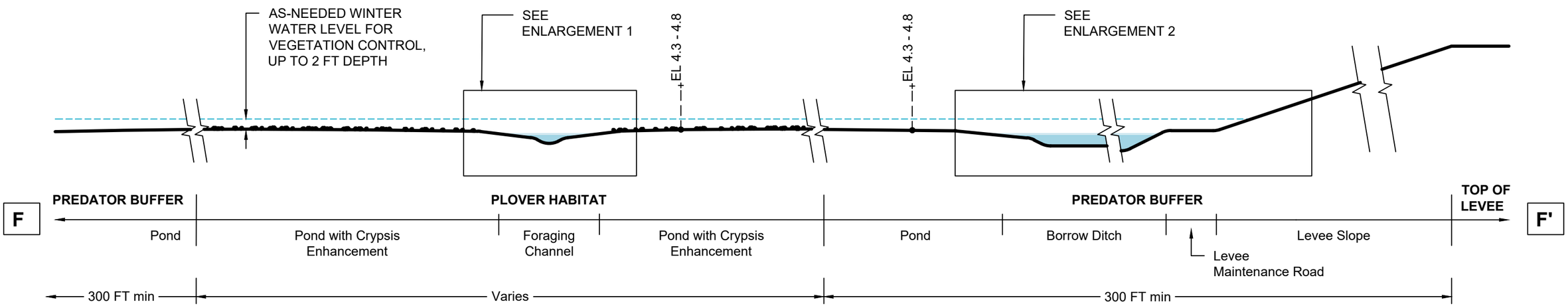

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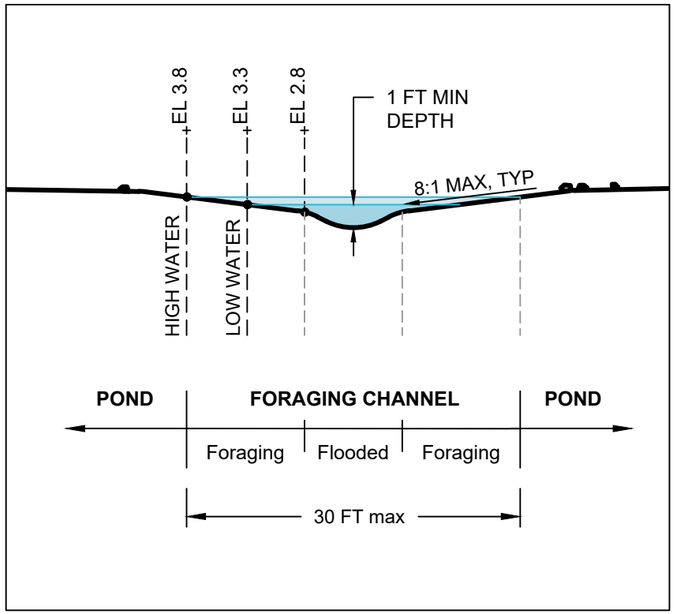

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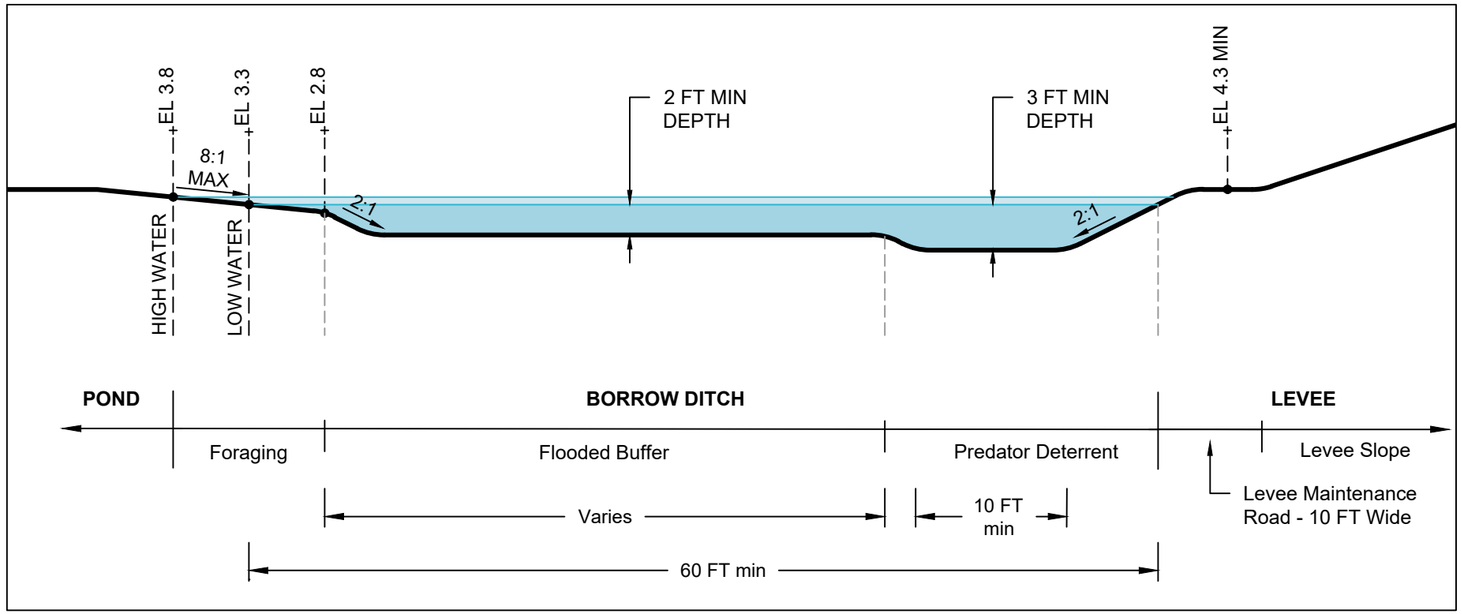

EL ELEVATION, NAVD88 FEET
H:V HORIZONTAL:VERTICAL SLOPE RATIO

Figure 12. Pond SF2 Western Snowy Plover Habitat Enhancement Conceptual Cross Section

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4.3.2 Borrow Ditch

A 60-foot wide borrow ditch will be excavated around the connected cells U2, U3, and U4 cells to form a continuous channel along the outside of the pond. The borrow ditch will be excavated to a minimum depth of 3 feet relative to the pond bottom for at least 10 feet horizontally from the adjacent upland areas to ensure that the borrow ditch retains enough water to inhibit mammalian predators from crossing. The remaining 50 feet of the borrow ditch will be excavated to a minimum depth of 2 feet to facilitate balancing of earthwork cut and fill on-site. At the viewing platform located in cell U4, the borrow ditch will be widened to 125 feet to prevent human disturbance from impacting breeding WSP. The edge of the pond along the borrow ditch will be laid back to gentle slopes to provide a large viewshed of the surrounding area, resulting in high-quality foraging habitat for WSP. Because a borrow ditch adjacent to the SAFER levee could cause levee instability. Therefore, per FEMA guidelines a 10-foot maintenance road at the pond side toe of the levee will be built in the eastern side of cell U2 between the levee toe and the borrow ditch. Figure 11 illustrates the location of the excavated borrow ditch and 10-foot maintenance road.

4.3.3 Slough Channel Filling and Excavation

To increase the continuity of WSP habitat in the pond, existing large channels in cell U3 will either be filled or made narrower and shallower. Large slough channels located within 300 feet of the power towers that are in U3 will be filled using excavated material from the construction of the SAFER levee. This will reduce the likelihood of WSP foraging in the interior of the pond within 300 feet of the power towers from where predators may perch and hunt. The slough channels located further west in the pond will be made narrower and shallower using excavated material from the SAFER levee construction.

To increase the amount of high-quality foraging habitat in the pond, several medium-sized slough channels in U3 will be re-routed and connected to the borrow ditch to ensure that they can be recharged with water throughout the breeding season. Other medium-sized slough channels will be filled to create more WSP nesting habitat and facilitate the movement of WSP broods across the pond.

4.4 Surface Substrate Treatment

4.4.1 Oyster Shell Enhancement

Previous studies of oyster shell enhancements deployed at Eden Landing Ecological Reserve in Hayward, California found that WSP preferentially selected to nest in shelled areas over unshelled areas; hatching success for nests in shelled areas may have been improved through increased crypsis provided by the shells; and a large amount of WSP were attracted to nest in shelled areas (Robinson-Nilsen et al. 2009, Donehower et al. 2013, Pearl et al. 2016). The studies did not find that oyster shells increased WSP fledging success, however it is important to note that oyster shells were not spread near wet areas that provide foraging habitat, and thus WSP broods would have to leave the shell enhancement plots to forage. During the initial oyster shell habitat pilot study conducted 2008–2010, oyster shells were spread by hand in 15 1-ha plots to an approximate density of 5–8 shells/m^2, while a large-scale oyster shell enhancement study in 2014 spread oyster shells to a similar density

over 20.23 ha by using a leaf blower to blow shells off the back of a tracked crawler carrier. A small amount of oyster shells have been previously spread to a similar density at Pond SF2 cell U3 by SFBBO volunteers in 2010 and 2024.

Figure 11 depicts the area of Pond SF2 over which oyster shells will be spread. Oyster shells will be spread over most of the reconfigured Pond SF2 cells U2, U3, and U4, including up to the edge of the top of bank of both interior foraging channels and borrow ditches, to provide crypsis for WSP at all life stages. Oyster shells will not be spread in the following areas:

- On the slope or trough of interior foraging channels or low-lying areas that may be prone to flooding.
- Within 300 feet of power towers, as they provide perches for raptors and corvids from which to hunt.
- Within 300 feet of the SAFER levee, as it obstructs the viewshed of WSP and inhibits their ability to detect approaching predators and react in a way that reduces predation risk for adults, eggs, or chicks.
- Within 300 feet of public viewing platforms, as they provide perches for raptors and corvids and are a source of disturbance when humans are present.

4.4.2 Gravel Enhancement

Oyster shells used for previous WSP habitat enhancements at Eden Landing were sourced from Drakes Bay Oyster Company in Marin County. Drakes Bay Oyster Company grew oysters for canning, and thus generated a large amount of oyster shells. Drakes Bay Oyster Company has since closed, and since there are no other oyster canning operations within the San Francisco Bay Area, there are no longer ample sources of oyster shell readily available for ecological enhancement. Other potential sources of oyster shell include discarded restaurant oyster shell collection and curing programs, such as Wild Oyster Project, as well as mining of native oyster shell deposits in the South San Francisco Bay by Lind Tug and Barge, Inc. However, it is unclear if these two sources of oyster shell will provide the amount of oyster shell needed to conduct habitat enhancement in Ponds SF2 and R3 when implementation occurs (described in Section 5 below). Therefore, gravel may serve as an alternative medium to enhance WSP crypsis in these ponds. Although gravel has not been used as an enhancement material to improve WSP breeding success in the San Francisco Bay or elsewhere along the Pacific Coast, there is evidence to suggest that it can provide similar benefits as oyster shells. Between 1996–2010, WSP were documented to nest on gravel bars on the Eel River located several miles upstream from the Pacific Ocean. While nesting in this habitat, WSP experienced high rates of both hatching and fledging success, which was attributed to the heterogeneous nature of the rock sizes and colors improving WSP crypsis at all life stages (Colwell et al. 2005). The gravel bars included small pea-sized gravel, egg-sized gravel, and larger cobble approximately the size of an adult WSP. In the San Francisco Bay, WSP have been observed to select nest locations among patches of heterogenous base rock left behind after salt production activities ceased at Eden Landing Ecological Reserve managed ponds (personal observation by Ben Pearl, senior wildlife ecologist, H. T. Harvey, 2019). At Bolinas Lagoon, Point Blue Conservation Science biologists have observed that a mix of gravel and cobble provides crypsis for roosting and foraging WSP (Stenzel pers. comm. 2019). Therefore,

although oyster shells are the preferred enhancement material, a heterogeneous mixture of pea-sized gravel (3/8”-3/4”), egg-sized gravel (1”-3”), and cobble (5”-10”) may serve as a suitable replacement if the project is unable to source the amount of oyster shell needed. The same conditions described in Section 4.4.1 Oyster Shell Enhancement would also apply to gravel enhancement.

4.5 Water Level Management

4.5.1 Management during WSP Breeding Season

To provide optimal WSP habitat during the breeding season, water depth within the excavated perimeter borrow ditch in Pond SF2 should be managed within a range of 3–4 feet, as shown in Figure 11. Three feet is the minimum water depth to ensure that the borrow ditch is filled to an appropriate depth to reduce the ability of mammals to reach WSP habitat. 4 feet is the maximum depth, as this will fill the borrow ditch and interior slough channels to provide foraging habitat but will not flood the pond bottom and place nests at risk.

4.5.2 Pump Station

Water Surface Elevation (WSE) management in the SF2 Pond complex is currently achieved using a gravity weir system. However, the installation of a flood protection levee between ponds U2 and U1 has created a situation where the gravity weir system is no longer the preferred method for managing WSE. This is in part due to the requirement in the requirement in the Urban Levee Design Criteria that “any gravity flowing pipe needs to be provided with a flap gate at the waterside outlet...”. In this case, water needs to flow in both directions and not just from the land side of the levee to the water side. The installation of flap gates in this situation is not possible. While the existing weir system will continue to manage the WSE for pond U1, a pumped system will need to be designed for the WSE management of the WSP habitat in ponds U2, U3, and U4. Design details will be finalized through coordination with the Refuge, who are responsible for managing the WSE in this pond complex.

Two options are currently under consideration for long-term WSE management of the SF2 Pond complex. The first option involves installing a permanent pumping system capable of both pumping water into the pond complex behind the levee and pumping water out of the complex. This option has a higher upfront cost and would require ongoing maintenance for the permanent facility. The second option is the use of a portable pump, where a pumping company would be contracted to manage the WSE during the nesting season and for weed management. This option has lower upfront costs and no maintenance obligations, but it requires contracting with a private company for service. During the next phase of design, both options will be discussed with all interested parties, and a preferred option will be selected.

4.5.3 Vegetation Management

WSP require sparsely vegetated habitats for breeding, foraging, and roosting, as they lay nests in a simple scrape in the ground and rely upon an obstructed viewshed to detect approaching predators. A small amount of pickleweed (*Salicornia pacifica*) may be advantageous for WSP by providing additional habitat complexity to

increase crypsis, shelter for chicks to hide from predators, and may also provide an additional source of invertebrate prey. However, over time managed former salt production ponds may gradually become heavily vegetated with native pickleweed and/or non-native slenderleaf iceplant (*Mesembryanthemum nodiflorum*) and Russian thistle (*Salsola tragus*), thereby reducing the amount of suitable WSP habitat and reducing their viewshed. Targeted hand removal can be effective in small areas, but vegetation management at the pond scale requires water management.

Land managers at the Refuge and Eden Landing employ two different methods to manage vegetation using water, including salinization and inundation. Salinization involves shallowly flooding the pond with approximately 1–2 inches of water during the fall after all WSP breeding has concluded. If temperatures are warm enough and there is no precipitation for several weeks, evaporation will concentrate soil salinity to levels that preclude vegetation growth. If environmental conditions are not appropriate, inundating the pond to approximately 2 feet above the pond bottom for an extended amount of time will eliminate vegetation on the pond. Either method may be used to control vegetation on Pond SF2.

4.6 Predator Deterrence

Corvids and raptors are known to perch on and hunt from elevated structures (e.g., power transmission towers, remnant salt production infrastructure, derelict hunting blinds, fences, etc.) within managed ponds and tidal marshes (Pearl et al. 2023). In addition, Common ravens (*Corvus corax*), red-tailed hawks (*Buteo jamaicensis*), peregrine falcons (*Falco peregrinus*) have all been observed nesting on power transmission towers in and adjacent to the Ravenswood Complex. In these circumstances, these species will often intensively hunt WSP adults, eggs, and chicks in the Ravenswood Pond Complex to provision incubating mates and nestlings, resulting in low hatching and fledging success for WSP. To reduce these impacts, wood structures have been removed on managed ponds where WSP breed throughout the South San Francisco Bay, including at Ponds R3 and R4. Power transmission towers have been modified with spikes on portions of the towers, but thus far these have proven ineffective in stopping perching.

A small number of remnant salt production infrastructure and derelict hunting blinds remain on Pond SF2 cell U3. These elevated structures will be removed to reduce the ability of avian predators to hunt within the pond. As the design progresses, we will map the locations and types of structures to be removed.

Power transmission towers within and adjacent to Pond SF2 will be treated with spike perching deterrents covering all suitable surfaces and nesting deterrents will be installed where appropriate to prevent nesting attempts by avian predators. Figure 11 identifies the locations of the power transmission towers to be treated in and adjacent to Pond SF2. As the design progresses, a perch deterrent installation plan will be prepared in collaboration with and approval from PG&E.

4.7 Predator Management

Targeted removal of both avian and mammalian predators is an important component of WSP conservation efforts across the Pacific Coast (Gaines et al. 2020, Marcot and Elbert 2015, Neuman et al. 2004). The Refuge has developed a predator management program that uses a combination of nest removal, trapping, and targeted shooting to reduce avian and mammalian predation pressure on WSP, CRR, and SMHM (USFWS 2012b). Funding for the predator management program is limited, and therefore predator management specialists time at each unit of the Refuge, including the Ravenswood Complex, is limited. The SAFER Bay Project will provide additional funding to support increased predator management efforts in the Ravenswood Complex, increasing the efficacy of this program and allowing for improved WSP hatching and fledging success. The annual amount and duration of funding will be determined during the regulatory permitting process with BRRIT.

4.8 Recreational Trail Access and Existing Wildlife Viewing Platform

Recreational trail access is currently provided along the eastern side of cell U1 and the southeast corner of cell U4. Two viewing platforms constructed by the SBSPRP are located along this trail, including one in cell U1 and another near the terminus of the public trail in cell U4. The SAFER levee alignment bisects the current public access trail to the U4 wildlife viewing platform but will not alter the location of this viewing platform. Following construction of the SAFER levee between cells U1 and U2, the viewing platform in U4 will be located in the reconfigured cells U2, U3, and U4 west of the SAFER levee. To maintain the existing public access to this viewing platform, the project will construct an American Disabilities Act compliant ramp over the levee to the viewing platform. If U4 were filled to create WSP nesting and foraging habitat too close to the viewing platform, human disturbance on the platform could cause impacts to both WSP nests and foraging broods. To prevent these impacts, U4 will be designed to maintain a 300-foot buffer between suitable WSP habitat and the platform, as shown in Figure 11.

In addition, the platform will be outfitted with coyote rollers to prevent avian perching. This equipment is designed to prevent mammals from traversing fences but has shown to be an effective anti-perching device at Alviso Marina County Park and Palo Alto Baylands Boardwalk. Coyote rollers were also installed at Eden Landing Ecological Reserve Pond E14 as a component of fences installed to reduce mammalian predator access onto WSP breeding habitat (Pearl et al. 2023).

Section 5.0 Pond R3 WSP Habitat Enhancement

5.1 Goals and Design Criteria

Pond R3 already provides WSP nesting, foraging, and roosting habitat. However, the goal of SAFER Bay's enhancement plan is to further improve WSP breeding habitat relative to the existing condition. The design criteria to accomplish this goal are as follows:

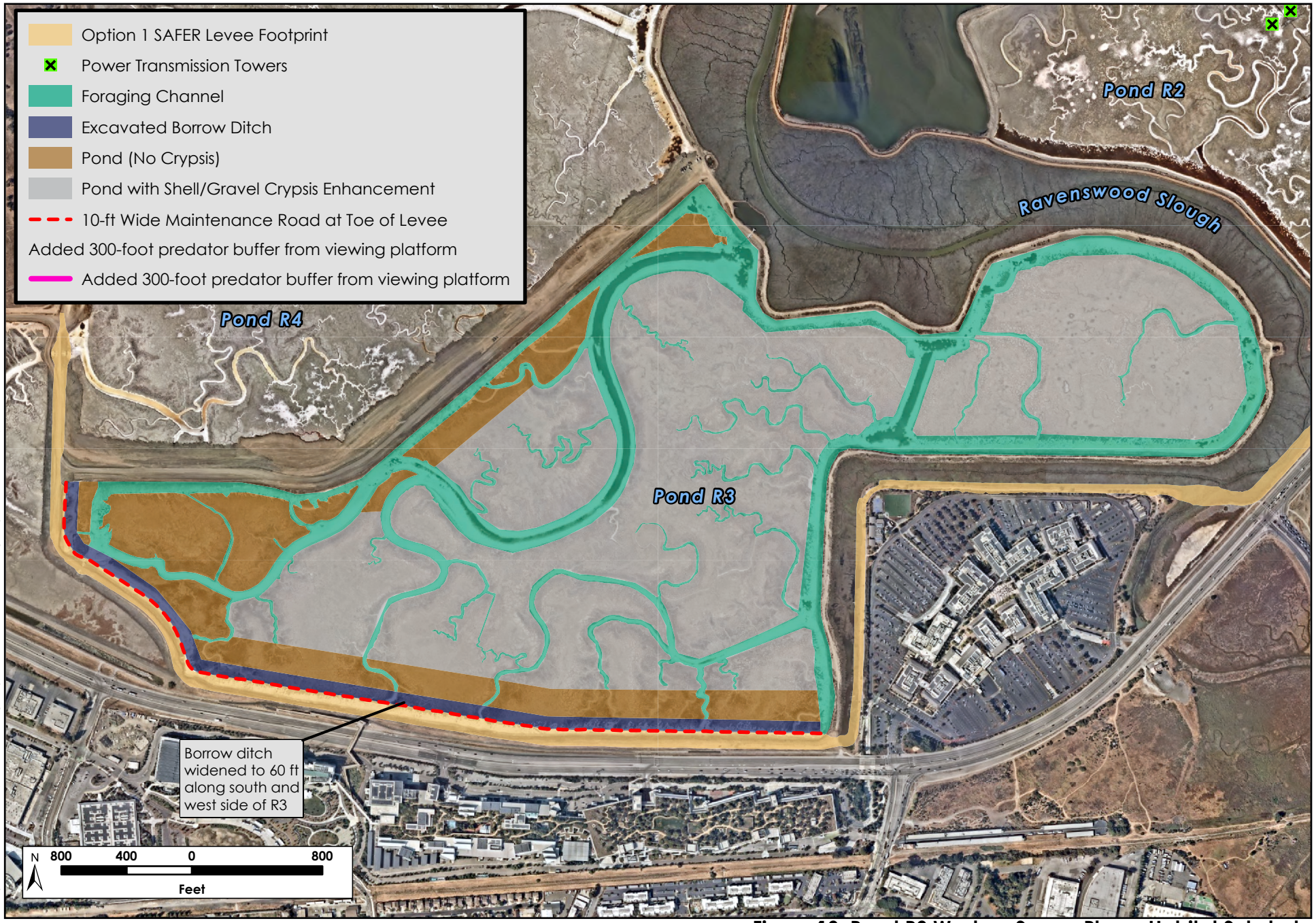
- Increase crypsis on the pond bottom via deployment of a surface substrate treatment.
- Widen the borrow ditch adjacent to the SAFER levee to reduce mammalian predator access to the pond bottom.
- Increase funding for predator management activities in these ponds designed to support WSP breeding.
- Monitor the stability of the berm separating Pond R3 from Ravenswood Slough with a coastal engineer. If deemed necessary by the monitoring engineer, construct targeted berm repairs to prevent berm breaching to ensure that the pond will provide high quality WSP habitat into the near future.

Figure 13 illustrates the location of crypsis plots and borrow ditch excavation in Pond R3.

5.2 Overview

WSP are known to consistently nest on Pond R3 (Pearl et al. 2023). With the recent breaching of Pond R4 in 2023 as part of SBSPRP Phase 2 actions, which previously supported a large amount of WSP breeding, nesting on Pond R3 increased during the 2024 breeding season (Schwarz pers. comm. 2024), and this pond is expected to remain an important WSP breeding pond moving forward. At Pond R3, WSP have experienced moderate hatching success but poor fledging success in recent years (Pearl et al. 2023, Schwarz et al. 2024), indicating that enhancement of the pond to increase crypsis and increased predator management effort would likely improve chick survival.

Pond R3 previously functioned as a seasonal pond with no water management capabilities, and as such, the amount of WSP nesting habitat in the pond and quality of foraging habitat was highly variable. However, as part of SBSPRP Phase 2 actions two water control structures were built on the pond. One structure is located on the north-central end of the pond on Ravenswood Slough, while the other is in the southwest corner of the pond and connects to Pond R5/S5. These structures will allow the pond to be managed to provide consistent breeding and foraging habitat.



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H. T. HARVEY & ASSOCIATES
Ecological Consultants

Figure 13. Pond R3 Western Snowy Plover Habitat Substrate and Predator Deterrent Enhancement Plan

SAFER Bay Project - Ecological Basis of Design for Project Level Reaches (3550-05)
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5.3 Borrow Ditch

Construction of the SAFER levee along the south side of Pond R3 will extend into the borrow ditch located in this area of the pond, and in some cases, onto the pond bottom. As a result, the project will excavate a new 60-foot wide borrow ditch along the pond-ward side of the SAFER levee to prevent easy mammalian access to the pond bottom and facilitate water flow around the borrow ditch and interior slough channels. The borrow ditch will be excavated to ensure that water depth in the borrow ditch can be managed to a depth of at least 3 feet during the WSP breeding season to inhibit mammalian predator, pedestrian, and dog access to the pond. This newly excavated borrow ditch segment will be an improvement over the current dimensions of the borrow ditch, which is approximately 28 feet wide in some locations and approximately 1 foot deep. Because a borrow ditch adjacent to the SAFER levee could cause instability, under FEMA guidelines a 10-foot maintenance road at the pond side toe of the levee will be built. Figure 13 illustrates the location of the 10-foot maintenance road and excavated borrow ditch.

5.4 Surface Substrate Treatment

5.4.1 Oyster Shell Enhancement

Oyster shells have not been used on Pond R3 in the past, but as with Pond SF2, WSP would benefit at all life stages from spreading oyster shells across the pond to increase crypsis.

Oyster shells will be spread over most of the Pond R3 to provide crypsis for WSP at all life stages. This includes spreading oyster shells up to the edge of the top of bank of both slough channels and borrow ditches. Oyster shells will not be spread in the following areas to avoid negative effects on WSP:

- On the slope or trough of interior slough channels or low-lying areas that may be prone to flooding.
- Within 300 feet of the SAFER levee, as it obstructs the viewshed of WSP and inhibits their ability to detect approaching predators and react in a way that reduces predation risk for adults, eggs, or chicks.

5.4.2 Gravel Enhancement

See Section 4.4.2.

5.5 Predator Management

See Section 4.7.

5.6 Ravenswood Slough Berm Stability Monitoring

During Phase 2 of the SBSPRP, the All-American Canal between Pond R3 and Pond R4 was filled and raised. Although it is not a FEMA-accredited levee, this berm provides protection against some degree of SLR in Pond

R3, helping to ensure that the pond can be managed to support breeding WSP into the near future. However, the berm along Ravenswood Slough in Pond R3 was not improved during Phase 2 actions. As such, both SLR and high tide events in the future could result in overtopping of this berm, which could in turn impact water management of the pond. Although not imminent, this could eventually lead to inadvertent breaching of the berm between the pond and Ravenswood Slough. Therefore, the SAFER Bay project will include 10 years of annual berm monitoring by a coastal engineer as a component of its post-construction restoration monitoring. The details of this monitoring work and triggers for berm repair, if needed, will be provided in the project's forthcoming Habitat Restoration and Monitoring Plan; a document to be prepared to support the project's BRRIT permitting.

Section 6.0 Beneficial Reuse and Restoration Sequencing

6.1 Beneficial Reuse of Bay Mud from Levee Construction for Habitat Restoration in Ponds R1 and R2

The SAFER Bay levee will be constructed on geotechnically suitable earthen foundations. In most locations, this will require the excavation and disposal of large volumes of bay mud from the levee footprint prior to building the levee with imported engineered fill. Table 9 presents HDR's estimated volumes of bay mud from excavation of the levee foundation (HDR 2024b). Bay mud is horticulturally and geotechnically suitable for tidal marsh restoration in Ponds R1 and R2 below the HTL but not suitable for reuse in levee construction. Therefore, this restoration plan includes the beneficial reuse of bay mud for tidal marsh restoration. Reusing bay mud on site will benefit the project by furthering restoration goals, reducing project costs, and reducing environmental impacts relative to costly off-site transport and disposal of bay mud from levee construction.

Table 9. Estimated Volume and Timing of Bay Mud Excavated from Levee Construction

Reach/Levee Alignment	Approximate Volume (Cubic Yards)[1]	Levee Construction Coincides with Bay Mud Reuse in Ponds R1/R2?
Pond SF2/Dumbarton Bridge	46,800	Yes
Substation and Marsh Restoration	191,800	Yes
South of Bay Road	57,000	Unknown
North of Bay Road	116,100	Unknown
Dumbarton Approach	36,800	Unknown
Tech Campus	74,100	Unknown
Bayfront Expressway	65,000	Unknown
Bedwell Bayfront Park and Marsh Road	30,600	Unknown
Total Approximate Volume Available for Beneficial Reuse in Ponds R1/R2	238,600	**Yes**
Approximate Volume with Timing Unknown	379,600	**Unknown**

[1] Volumes from HDR 2024b.

As shown in Table 9, the timing of bay mud production for many of the project reaches relative to the timing of tidal marsh restoration in Pond R1 and R2 is uncertain. Moreover, the volume of bay mud available for reuse is likely to depend on results of ecological contaminant assessments in reaches with known contamination from historical land uses, which have not yet been required or undertaken. Since final beneficial reuse volumes are uncertain, the project has developed a prioritized list in Table 10 of uses for bay mud in Ponds R1 and R2 to prepare the ponds for breaching (Table 9).

As shown in Table 10, the restoration plan can accommodate a range of volumes: from 19,000 cubic yards as the minimum necessary volume to install ditch blocks, to 449,000 cubic yards if all 3 priority uses are achieved. In addition, as described in Section 3 and Figure 4, bay mud will be generated in Pond R1/R2 by excavating breaches and channels. We assume the project will reuse all of that excavated volume on-site to establish ditch blocks and/or fill low areas/borrow ditches in R1/R2 (Table 10). Therefore, we estimate R1/R2 will have capacity to receive at least 315,220 cubic yards of bay mud generated from levee construction (that volume is likely an underestimate, as fill estimates for borrow ditches do not account for losses on placement). That capacity is more than enough to reuse/receive the volume of bay mud expected to be generated by levee construction at Pond SF2/Dumbarton Bridge and Substation and Marsh Restoration Reaches (Table 9). Therefore, there should be ample bay mud volume from the SF2 and R2 levee excavations not only to build the priority level 1 and 2 habitat features, but also to fill a large proportion of the major borrow ditches (priority level 3) (Table 10).

Table 10. Approximate Volume and Priority Use of Beneficial Reuse of Bay Mud in Ponds R1 and R2

Habitat Feature	Location	Approximate Volume (Cubic Yards)	Priority Level	Required to Meet Restoration Goals? and Notes
Constuct ditch blocks	Pond R1	19,000	1	Yes, necessary to develop adequate tidal slough channel complexity.
Fill low elevation area in southwest corner of R1 to marsh elevation	Pond R1	107,000	2	No, but recommended to reduce the need for maintenance dredging around nesting islands.
Fill major borrow ditches	Ponds R1 and R2	264,000	3	No, but would result in a larger area of conversion of subtidal channel to vegetated marsh, which would benefit endangered salt marsh harvest mouse and California Ridgway's rail.
Total capacity for bay mud beneficial reuse in R1/R2		390,000		Note: Does not include seabird nesting islands and T-zone because these features will be constructed with imported upland fill. Does not include high tide refuge islands which will be built with bay mud excavated from adjacent historical channels.
Volume of bay mud excavated in pond R1/R2 for breaches and channels to be reused onsite		133,780		Note: does not include excavation of bay mud from historical channels to be used to build high tide refuge islands.
Capacity remaining in R1/R2 for bay mud generated from levee construction		256,220		

6.2 Restoration Sequencing in Ravenswood Pond Complex

Construction of restoration features in Ponds R1, R2, R3 and SF2 will be implemented prior to or concurrent with the initial levee construction efforts which impact waters of the U.S./state. This is necessary to reduce the temporal loss of regulated wetland habitat because there will be a lag in vegetated tidal marsh establishment in Ponds R1/R2 after breaching due to the existing subsided ground surfaces in the ponds (See section 3.4). Moreover, restoration construction within these ponds also needs to follow the sequence outlined below to minimize impacts to WSP and seabirds.

Tidal restoration of Pond R1/R2 will result in loss of WSP habitat via conversion of seasonal pond to vegetated marsh habitat. Therefore, enhancements for WSP at Pond R3 and SF2 must occur prior to breaching Pond R1/R2 to ensure that ample WSP breeding and foraging habitat is available in the pond complex in every WSP breeding year. Similarly, nesting seabird islands need to be completed in Pond R1 before impacting seabird nesting islands at SF2 so that seabirds have nesting habitat available in R1 when SF2 islands are removed. The remaining restoration actions should happen either prior to or concurrently with habitat impacts, as listed below.

Prior to, or concurrent with constructing the Dumbarton Approach levee through Pond SF2:

- Complete seabird nesting bird island earthwork in Pond R1 prior to dewatering Pond SF2 U2.
- Reuse bay mud from SF2 levee construction in Ponds R1/R2 for ditch blocks and to fill borrow ditches.

Concurrent with constructing the Substation and Marsh Restoration levee in Pond R2:

- Reuse bay mud from Pond R2 levee construction in Ponds R1 and R2 for restoration features (Table 9).

Prior to breaching Pond R1/R2:

- Complete engineered levee construction and construction of 10H:1V T-zone in Pond R2.
- Complete crypsis substrate installation for WSP at Pond R3.
- Complete grading and crypsis substrate installation for WSP in Pond SF2.
- Complete construction of water management infrastructure in Pond SF2.
- Construct pilot channels and ditch blocks in Pond R1/R2 and Ravenswood Channel.
- Build in-marsh refugia islands in Ponds R1/R2 and seed R1/R2 berm.
- Revegetate decommissioned portions of Ravenswood Trail around Ponds R1/R2.

Prior to or within the same construction season as initial levee construction impacts to tidal marsh in South of Bay, North of Bay, and/or Tech Campus reaches:

- Breach Pond R1/R2 to tidal action.

Concurrent with start of impacts to tidal slough channels from levee construction in Faber Marsh, Laumeister Marsh, Ravenswood Open Space Preserve and Ravenswood Slough:

- Restore on-site tidal channels (see Section 8).

Concurrent with constructing Bayfront Expressway levee along Pond R3:

- Construct excavated borrow ditch to provide predator deterrent in Pond R3.

Section 7.0 Project-Wide Levee Slope Revegetation

7.1 Goals and Design Criteria

The purpose of levee slope revegetation throughout the project area is threefold: to contribute to levee stability, support target wildlife species, and improve visual aesthetics. Special-status wildlife species, particularly CRR and SMHM, use dense and structurally complex vegetation on levee slopes as refugia habitat from predators during very high tide events, when shelter within the marsh is inundated. Therefore, the revegetation design for the levee slopes is based on the following goals:

- Establish vegetative cover to slow runoff and reduce the likelihood of surficial soil erosion.
- Prevent the establishment of deep-rooted vegetation that could compromise levee integrity.
- Accommodate the use of levee slopes by avian and mammalian wildlife, particularly for those that are special-status, while minimizing refugia for predators of special-status wildlife in adjacent marshes and ponds.
- Establish a diversity of native vegetation with low cover of invasive plants that can be maintained with minimal use of herbicide and a reasonable level of overall effort.

To achieve these goals, the restoration design includes the following design criteria for different levee reaches throughout the project area, as shown in Figure 14:

- Establish T-zones comprised of alkali meadow and tidal salt marsh vegetation on 3H:1V levee slopes adjacent to high quality tidal marsh (on levees slopes shown as "Salt Marsh-Upland Transition Zone [3:1 T-zone] on Figure 14). Revegetate 3:1 T-zones with dense, native vegetation that includes both a substantial area of vegetation patches with vertical canopy at least 1 foot above the HTL for high tide refugia cover and areas of grassland at least 1 foot tall to provide high-tide refugia for CRR, SMHM, and other resident salt marsh species.
- Establish grassland transitioning to salt marsh on 3H:1V levee slopes adjacent to managed ponds and tidal marsh areas (on levee slopes shown as "Grassland with Salt Marsh [Non-Tidal] and [Tidal] on Figure 14). CRR use is uncommon in these reaches and therefore levee slopes do not need to provide refugia for CRR. Establish dense grassland on slopes to reduce erosion and maintain a band of salt marsh vegetation below the HTL to provide forage and refugia habitat for SMHM.
- Establish dense grassland habitat on levee slopes adjacent to upland or developed habitats (on levee slopes shown as "Grassland" on Figure 14).
- Establish short stature, moderate density grassland on levee slopes adjacent to managed ponds used as WSP breeding habitat (specifically, along Ponds SF2 U2, Pond R3 and the Redwood City salt ponds

as shown on Figure 14). Limit the levee slope vegetation to short stature, moderate density grassland to reduce the likelihood that the slopes will provide habitat for mammalian predators of WSP.

- Establish the maximum vegetation cover possible to reduce surficial erosion on the levee slopes while meeting habitat goals.
- Control invasive plants in T-zone habitat where vegetation structure is necessary to achieve the habitat structure goal (bullet 1 above).

All levee slopes will be 3H:1V, which was selected by HDR to maintain levee stability and geotechnical support to floodwalls. 3H:1V slopes will allow for substantial enhancement of T-zone habitat function relative to existing conditions along levee alignments where T-zones are planned (Figure 14). H. T. Harvey assessed the ecological pros and cons of gentler and wider T-zone slopes adjacent to the project's existing tidal salt marshes in *SAFER Bay Project – High Tide Refugial Habitat Assessment and Resulting Marsh-Upland Transition Zone Configuration Recommendations, North and Slough of Bay Road, East Palo Alto* (H. T. Harvey 2023). This assessment concluded that narrower T-zone slopes (i.e., 3H:1V), if appropriately revegetated, would provide higher net ecological lift compared to gentler/wider slopes (e.g., horizontal levee) due to the high value of these particular tidal marshes which would be lost by construction of wider T-zones (H. T. Harvey 2023).

7.2 Target Levee Slope Habitats

Cross sections showing the conceptual revegetation design for each of the target habitats are provided in Figures 15–19.

7.2.1 Salt Marsh-Upland T-Zone

High quality tidal marsh habitat is found throughout the project area, including in Faber, Ravenswood, and Laumeister marshes, and the Moseley Tract (Figure 14). T-zone vegetation will be established on levee slopes adjacent to these areas. Restored, high-quality tidal marsh will also be present in Ponds R1 and R2 following project implementation. T-zone habitat within these areas is addressed in Section 3.9.

To provide an adequate rooting depth for the target T-zone vegetation, at least 2 feet of topsoil will be provided on top of embankment fill or environmental fill material used for construction of the levee (Figure 15). The lower areas of the levee (below the HTL) will experience routine inundation by saline tidal waters during high-tide events. Sea spray and variable subsoil conditions will result in alkali soil conditions on the levee slopes above the HTL as well. As described in Section 3.9.2, no horticultural criteria are necessary for imported soil below the upper 2 feet of topsoil, therefore, salts from subsoils may wick up into the deeper portion of the topsoil profile over time.

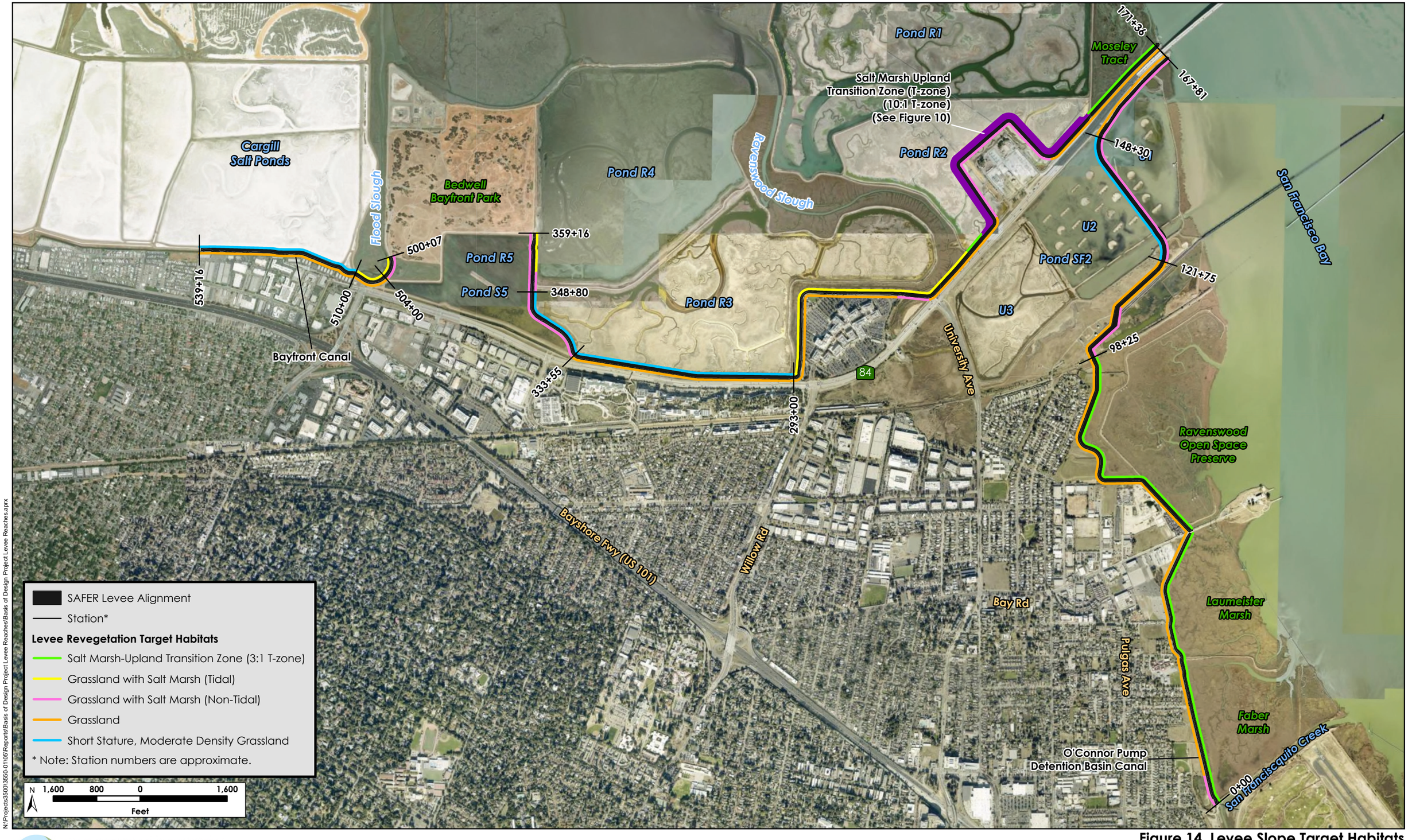

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Figure 14. Levee Slope Target Habitats
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April 2026

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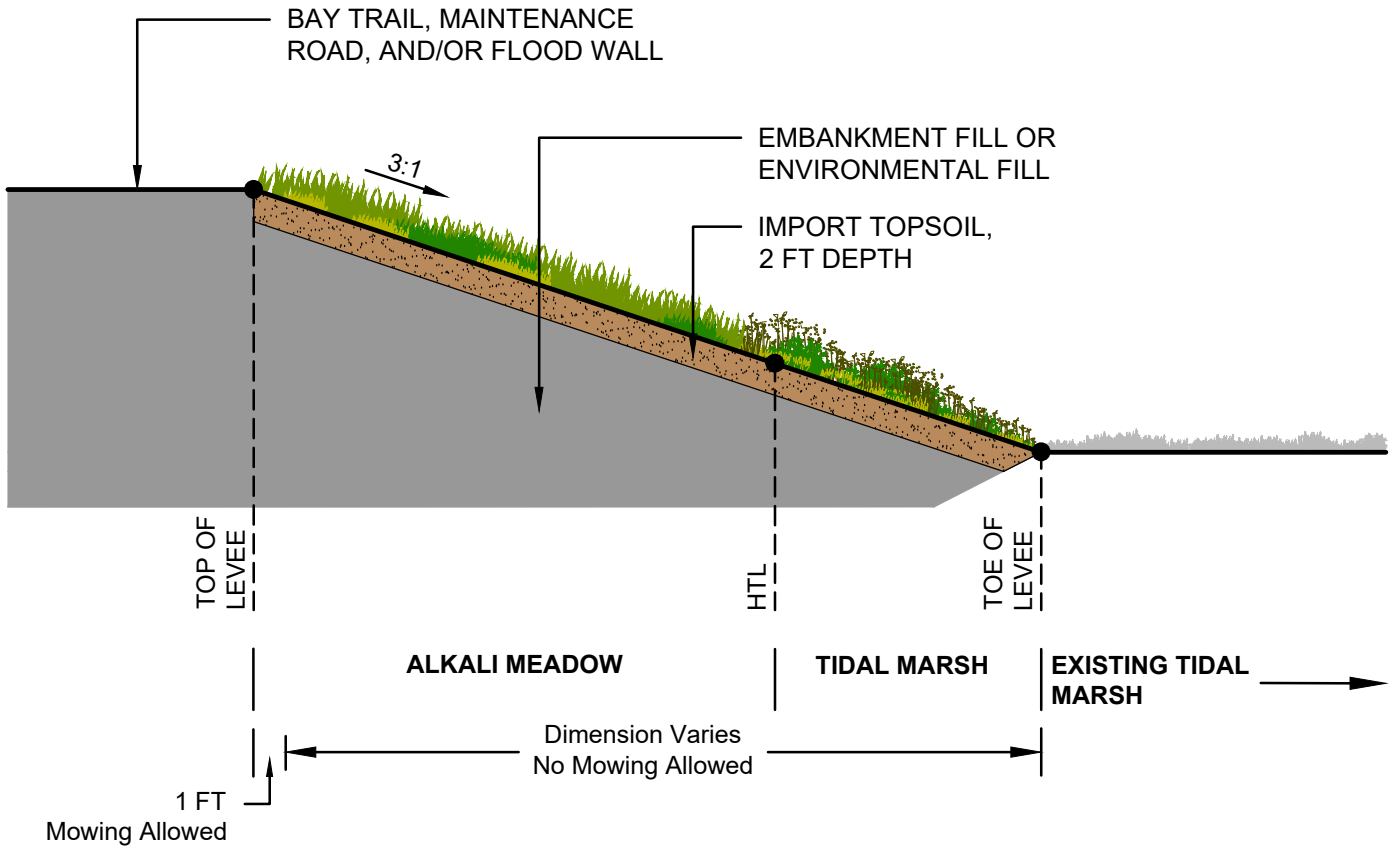

HTL HIGH TIDE LINE
H:V HORIZONTAL:VERTICAL SLOPE RATIO

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Figure 15. Levee Slope Revegetation Cross Section - Salt Marsh-Upland Transition Zone (3:1 T-zone)

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To align with these abiotic conditions and to meet the habitat goals articulated above, levee slopes adjacent to high quality tidal salt marshes will be actively revegetated with alkali meadow habitat, transitioning to tidal marsh below HTL. Alkali meadow habitat will be seeded with a mix of graminoid and forb species that have a range of salinity tolerance, with the expectation that seeded species will "self-sort" by salinity tolerance across the levee slope's salinity gradient and establish a relatively dense vegetation community. Within this seed mix, native annual and perennial grass species will be included such as small fescue (*Festuca microstachys*) and purple needle grass (*Stipa pulchra*). Native forb species with relatively shallow maximum rooting depths such as Menzies' fiddleneck and yarrow will also be included. This vegetation will be interspersed with patches of salt-tolerant, taller native grasses and forbs such as creeping wildrye and western ragweed (*Ambrosia psilostachya*) to create high-tide refugial habitat. These species will stabilize topsoil, compete with woody and invasive species, and provide foraging resources for native pollinators.

Portions of this habitat that are located on environmental fill will be vegetated with coastal scrub patches that are composed of drought-tolerant, medium statured woody subshrubs and forbs such as California buckwheat (*Eriogonum fasciculatum*) and sticky monkey flower which will add vertical structure and plant diversity to the habitat.

At the lower elevations of the levee slopes in these areas, vegetation will transition to tidal marsh habitat. As is described above, these tidal marshes are dominated by marsh plant species such as Pacific cordgrass, perennial pickleweed, and annual pickleweed, with patches of other dominant species such as marsh gumplant, alkali heath, or marsh jaumea. Although these common tidal salt marsh plant species are anticipated to recruit within tidal salt marsh habitat through hydrochloric dispersal (e.g., water facilitated seed and root mass dispersal), species that recruit more slowly, such as saltgrass, will be installed to increase initial plant diversity. Marsh gumplant, a subshrub and one of the tallest native marsh species, is a key element to providing the structural complexity that forms high-quality refugial habitat. This species also provides structural support that other common tidal marsh species can arbor through (i.e., perennial pickleweed). While marsh gumplant is anticipated to establish passively overtime, due to its importance in provision of high tide refugia, marsh gumplant will also be installed from container stock to increase its rate of establishment above that of passive recruitment.

Incorporation of taller forbs, particularly subshrub species, is a deviation from USACE's *Guidelines for Landscape Planting and Vegetation Management at Levees, Floodwalls, Embankment dams, and Appurtenant Structures* (USACE Levee Guidelines) (USACE 2019). The rationale for this deviation and the proposed approach to maintaining levee safety while incorporating these species is explained further in Section 7.4.4. Similarly, routine levee mowing (or otherwise trimming e.g. via grazing) to facilitate levee slope inspections are not recommended for T-zone habitats. This is because the structure provided by taller vegetation is a key element of the habitat's ability to function as refugia for sensitive wildlife species. In addition, mowing poses a risk of take of these species. Therefore, the achievement of the T-zone's ecological goals for endangered tidal salt marsh species will require a variance of USACE Levee Guideline's vegetation-related maintenance requirements (USACE 2019; See Section 7.4.4).

7.2.2 Grassland

Dense California annual grassland will be established on levee slopes adjacent to habitats other than high-quality tidal marsh or WSP habitat (Figure 14). Grassland habitat will be established where levee slope vegetation is not required to achieve specific special-status wildlife goals. In most locations, grassland habitat will be established on levee slopes that are adjacent to upland habitats such as developed land and ruderal grassland (Figure 16). In some locations, grassland with non-tidal salt marsh will be established on levee slopes adjacent to existing non-tidal salt marsh, non-tidal aquatic areas (such as seasonal wetlands), and managed ponds (Figure 17). Finally, rather than T-zone habitat, grassland with tidal salt marsh will be established adjacent to tidal marsh habitat in Ravenswood Slough and Flood Slough upslope of tidal salt marsh (Figure 18), due to the low likelihood that CRR will use levee slopes in these locations as high-tide refugia.

One foot of topsoil will be placed where grassland habitat is proposed for levee slopes to support relatively dense grassland vegetation (Figures 17 and 18). This topsoil depth (opposed to two feet of topsoil placement within the T-zone described above) accommodates the rooting depths of California annual grassland species, which are typically shallower than T-zone species. Where grassland is proposed for levee slopes, active revegetation using native plant species will be used to stabilize topsoil and provide foraging habitat for common pollinators, birds, and small mammals. Grassland levee slope revegetation areas aim to create a densely vegetated habitat that is somewhat resistant to weed invasion, including invasive species, as well as by woody species that may compromise levee integrity. Species selected for revegetation of grassland habitat will be tolerant of low soil salinity, due to the possibility of salts in subsoils (below the 1 foot of topsoil to be placed during construction) or introduced via sea spray. Selected species are also tolerant to annual mowing for levee inspection. To accomplish these goals, grassland habitat will be seeded with a diversity of native herbaceous grass and forb species such as California brome (*Bromus carinatus*), blue-eyed grass (*Sisyrinchium bellum*), and meadow barley (*Hordeum brachyantherum* var. *salt*).

In addition to seeded species, salt marsh vegetation such as perennial pickleweed is anticipated to establish via natural recruitment slightly above (i.e., approximately +2 horizontal feet) and downslope of the ordinary high water (OHW) (Figure 17) or HTL (Figure 18) in areas where aquatic habitats are present at the toe of the slope (Figure 14). This vegetation is likely to be used as forage and shelter for SMHM. To protect these species, mowing in these areas is not recommended. Therefore, a variance of USACE's vegetation-related maintenance requirements will be requested for these habitats (See Section 7.4.4).

7.2.3 Short Stature, Moderate Density Grassland

As described in Sections 4 and 5, habitat enhancements in Pond SF2 and Pond R3 will provide improved nesting, foraging, and roosting habitat for WSP. Redwood City salt ponds also provide WSP habitat. The revegetation approach for levee slopes adjacent to these areas is designed to protect WSP that may use the ponds for nesting, foraging, and roosting. It is also designed to incorporate plant species that are tolerant of low salinity.

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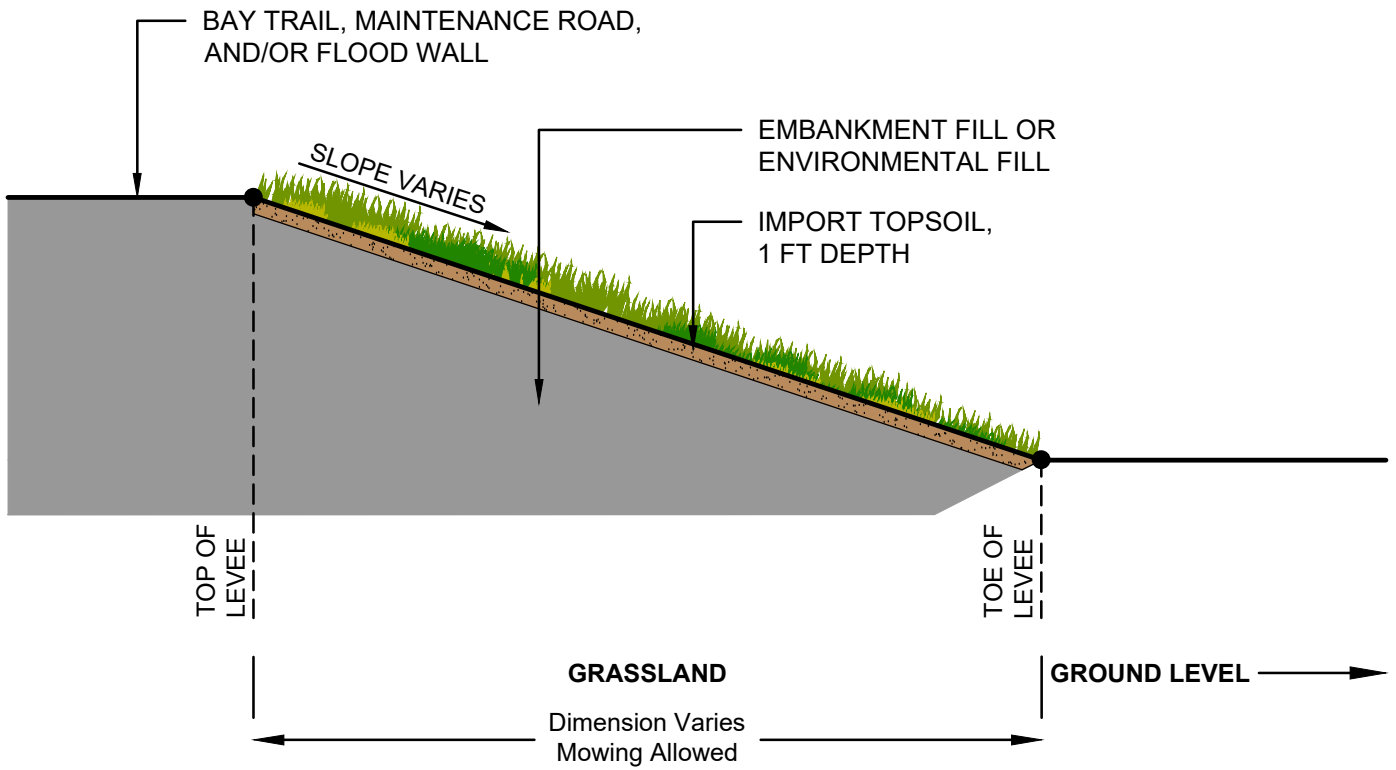

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Figure 16. Levee Slope Revegetation Cross Section - Grassland

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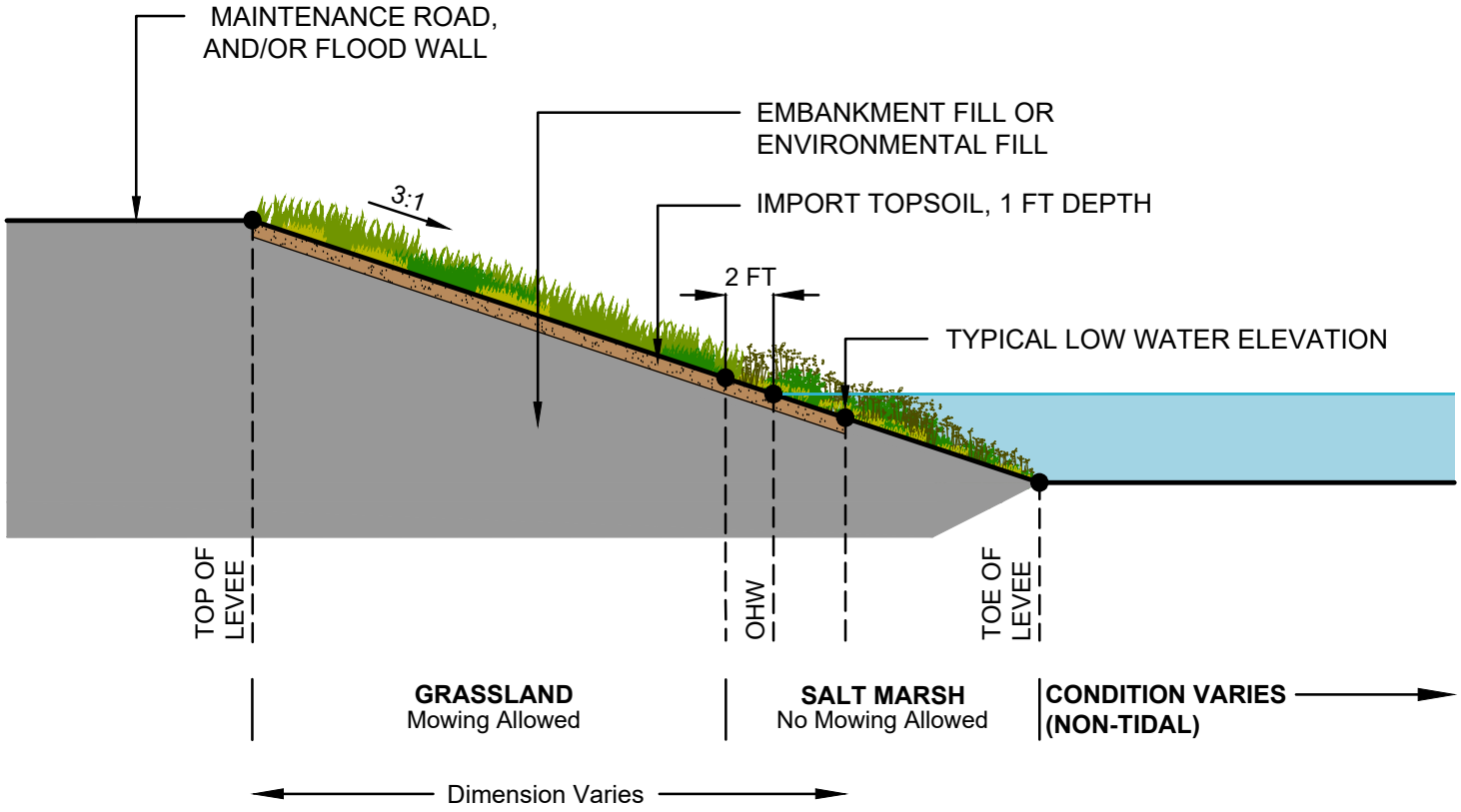

OHW ORDINARY HIGH WATER
H:V HORIZONTAL:VERTICAL SLOPE RATIO

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Figure 17. Levee Slope Revegetation Cross Section - Grassland with Salt Marsh (Non-Tidal)

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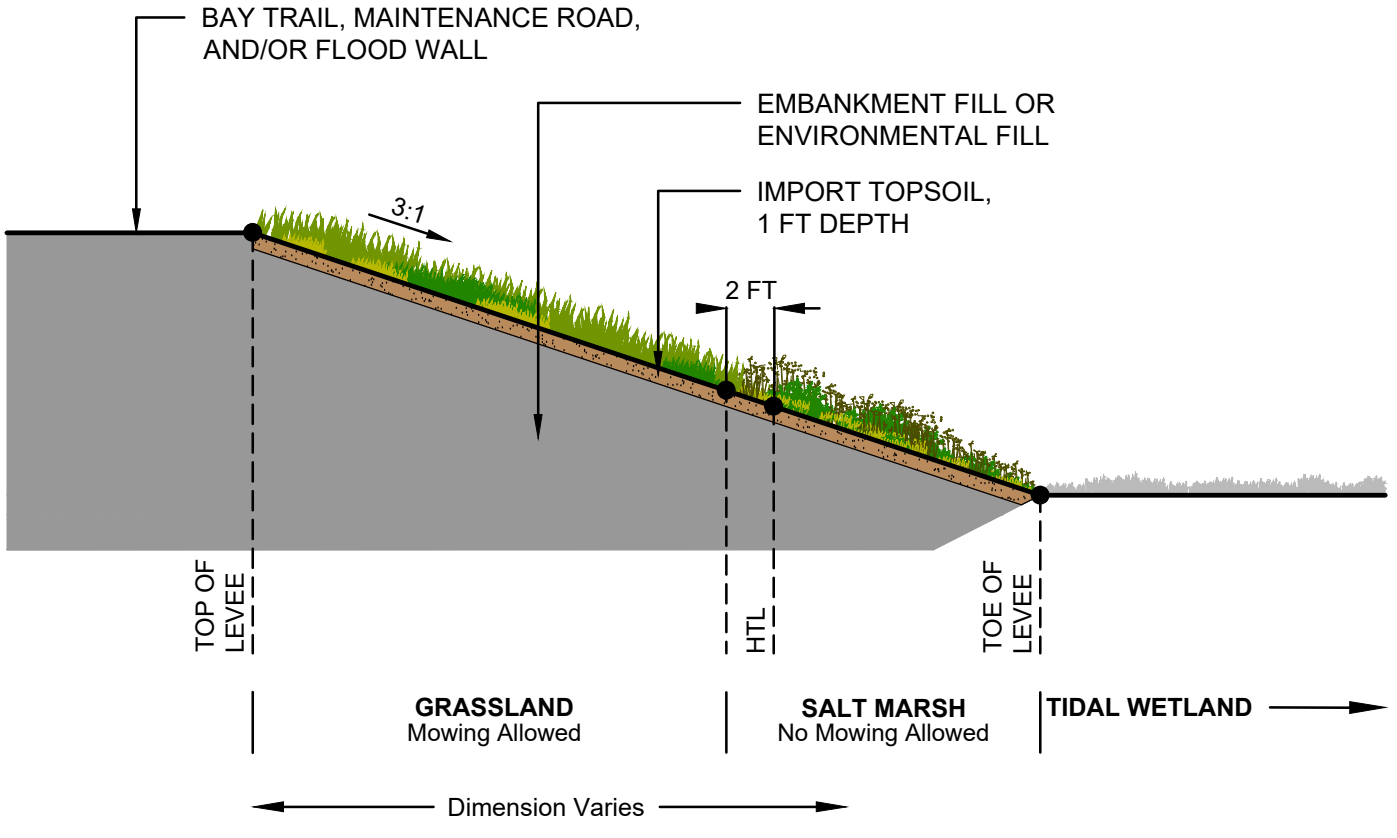

HTL HIGH TIDE LINE
H:V HORIZONTAL:VERTICAL SLOPE RATIO

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Figure 18. Levee Slope Revegetation Cross Section - Grassland with Salt Marsh (Tidal)

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Six inches of topsoil will be placed within short stature, moderate density grassland (Figure 19). This shallow topsoil depth will allow for short statured California grassland species to be well-rooted within the habitat and therefore help stabilize topsoil, while supporting its moderately dense vegetation habitat goal (further described below). Throughout the levee slopes within this habitat, subsurface fill may have a diversity of chemical conditions, including salts that may wick up into the lower layer of topsoil. In addition, periodic sea spray from the adjacent ponds may also be a source of salts in these environments. Finally, lower levee slope elevations will be inundated when ponds are flooded.

WSP are vulnerable to predation by mammalian predators that may hide in tall or dense vegetation on the levee slopes. However, vegetation cover is still desirable on these levee slopes to stabilize topsoil and reduce opportunities for woody plant and invasive weed establishment. Therefore, target vegetation in these areas consists of a short stature, moderate density grass and forb vegetation community that typically grows less than 2 feet tall with tolerance for low soil salinity levels and mowing. Species include short statured forbs such as red maids (*Calandrinia menziesii*) and yellow rayed goldfields (*Lasthenia glabrata*) and short statured grasses such as small fescue and alkali barley (*Hordeum depressum*). In addition, below the OHW, salt marsh vegetation is expected to establish via recruitment. Routine mowing (1–2 times per year) for levee inspections in the grassland habitat (both above and below the OHW) will also help to maintain vegetation growth at a low height.

7.3 Soil Preparation

To support the target habitats shown in Figures 15–19 and described in Section 7.2, imported topsoil will meet the physical and chemical soil criteria described in Section 3.9.2 (Table 5). Additionally, all imported soil will be required to meet contaminant screening criteria in the Master QAPP to protect aquatic ecological receptors (USFWS and H. T. Harvey 2024).

Prior to seeding and planting, the upper 12 inches of topsoil will be decompacted within all habitats except for the short statured, moderate density grassland, where 6 inches of topsoil will be decompacted. The upper 6 inches of topsoil will be amended, if necessary, to meet the horticultural criteria in Table 5. For example, a compost amendment will likely be required to meet the organic matter requirements.

7.4 Revegetation Plan Overview and Timing

Levee slopes will be revegetated via a combination of planting, seeding, and natural recruitment. Seeding and planting should occur immediately after levee slope earthwork to reduce the establishment of non-native and invasive plants, as described in Section 3.9.5. The conceptual approach to revegetation for each levee slope habitat type is described below.

7.4.1 Seeding Plan

Following earthwork and soil preparation, the levee slopes will be seeded during the same timing window and with the same methods as those described for the T-zone (Section 3.8.3).

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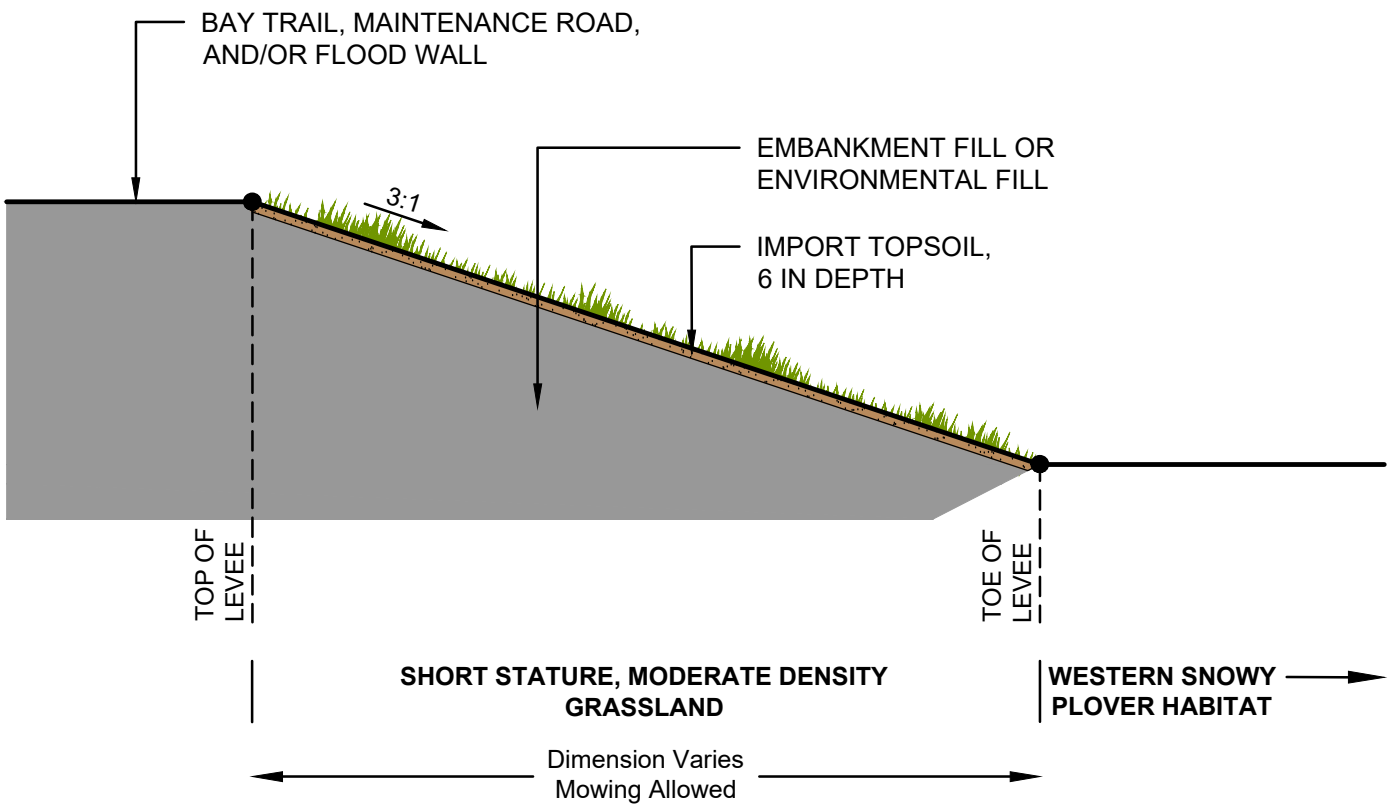

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Figure 19. Levee Slope Revegetation Cross Section - Short Stature, Moderate Density Grassland

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7.4.1.1 Salt Marsh-Upland T-Zone

Alkali meadow habitat along the levee slope will be seeded (hydroseeded or manually broadcast seeded) from the levee top to MHHW, or the lower extent of topsoil (whichever occurs higher in elevation) (Figure 15) using the alkali meadow seed mix in Table 6. Application rates in Table 6 are relatively high to achieve a dense vegetation community. In addition to native grass species, the seed mix includes native forb species with a maximum rooting depth from approximately 6–24 inches to protect levee integrity (Table 6). The average maximum height of the grass and forb species included in Table 6 is approximately 2.8 feet (Calscape 2025).

In the same construction season following this initial seeding, coastal scrub will then be seeded in patches using the seed mix in Table 7 within the alkali meadow habitat in Faber and Laumeister marshes. The application of the coastal scrub seed mix will be limited to slopes adjacent to these marshes because flood protection is primarily to be provided by a flood wall backfilled with environmental fill. Due to the deep maximum rooting depths (from approximately 20–60 inches) of species in the scrub seed mix, no scrub mix will be applied to T-zones on embankment fill, to avoid affecting levee integrity. Seeding scrub vegetation in patches is designed to limit the broader colonization of the space by these competitive shrubs and forbs and thereby foster higher species diversity. The size and density of seeded scrub patches will be determined during a future design phase. Coastal scrub patch seed will be manually broadcasted and raked into the upper ¼ inch layer of soil. These species germinate readily from seed.

Natural recruitment of common tidal salt marsh plants by seed is anticipated; therefore, no seed mix is presented for tidal marsh habitat. The planting plan for this habitat is described in Section 7.4.2.

7.4.1.2 Grassland

Grassland habitat in areas adjacent to tidal salt marsh will be seeded from the levee top to MHHW, while grassland adjacent to all other habitats will be seeded from the levee top to the lower extent of topsoil (Figures 16–18). Similar to salt marsh-upland T-zone habitat, application rates are relatively high to achieve its dense vegetation habitat goal. The seed mix for this habitat incorporates a variety of native perennial and annual grass and forb species that germinate readily from seed and can generally tolerate seasonal vegetation mowing (Table 11; Calflora 2025). Table 11 also includes forb species with a maximum rooting depth from approximately 6–12 inches to protect levee integrity while providing wildlife benefits such as pollinator habitat, refuge habitat, and a food source for wildlife (U.S. Department of Agriculture 2025).

7.4.1.3 Short Stature, Moderate Density Grassland

The seed mix presented in Table 12 will be hydroseeded or manually broadcast seeded within the short stature, moderate density grassland habitat from the levee top to the lower extent of topsoil (Figure 18). The seed mix incorporates short statured forb and grass species that have an average maximum height of approximately 2 feet (with the tallest species having a maximum height of approximately 3 feet) (Calscape 2025). Qualitative observations made by H. T. Harvey restoration ecologists from other similar Bay Area restoration sites indicate that many of these species typically do not exceed 2 feet in height. Additionally, application rates have been

reduced compared to other levee slope revegetation areas to achieve a moderate density grassland which will reduce hunting habitat for mammalian predators of WSP. The seed mix includes forb species with a maximum rooting depth from approximately 6–12 inches to protect levee integrity (Table 12).

Table 11. Grassland Seed Mix

Scientific Name	Common Name	Broadcast Seed Application Rate PLS/ac (lbs)	Hydroseed Seed Application Rate PLS/ac (lbs)	Approximate Maximum Rooting Depth (Inches)[1]	Approximate Maximum Height Above Ground (Inches)[1]
Forbs					
Achillea millefolium	Yarrow	0.5	0.75	9	36
Calandrinia menziesii	Red maids	0.5	1	12	12
Eschscholzia californica	California poppy	1	2	12	24
Lasthenia glabrata	Yellow rayed goldfields	0.25	0.5	12	24
Layia platyglossa	Tidy tips	0.5	1	6	24
Sisyrinchium bellum	Blue eyed grass	0.75	1.5	12	24
Grasses					
Bromus carinatus	California brome	5	7	NA	60
Elymus glaucus	Blue wildrye	5	6	NA	60
Elymus triticoides (var. Yolo)	Creeping wildrye	2	3	NA	48
Festuca microstachys	Small fescue	2.5	3.5	NA	30
Festuca rubra var. molate	Red molate fescue	3	4	NA	24
Hordeum brachyantherum var. salt	Meadow barley	3	4	NA	36
Stipa pulchra	Purple needlegrass	2	3	NA	40
Total		**26.0**	**37.25**		

Notes: PLS = pure live seed, ac = acres, lbs = pounds, NA = Not applicable (no variance needed for grasses).

[1] Data on maximum rooting depth and height above ground sourced from the following sources: Calscape 2025, H. T. Harvey 2019, Jepson Herbarium 2025. No rooting information was available for red maids; rooting depth based on professional judgement.

Table 12. Short Stature, Moderate Density Grassland Seed Mix

Scientific Name	Common Name	Broadcast Seed Application Rate PLS/ac (lbs)	Hydroseed Seed Application Rate PLS/ac (lbs)	Approximate Maximum Rooting Depth (Inches)[1]	Approximate Maximum Height Above Ground (Inches)[1]
Forbs					
Achillea millefolium	Yarrow	0.25	0.5	9	36
Calandrinia menziesii	Red maids	0.25	0.50	12	12
Eschscholzia californica	California poppy	0.5	1	12	24
Lasthenia glabrata	Yellow rayed goldfields	0.25	0.5	12	24
Layia platyglossa	Tidy tips	0.25	0.5	6	24
Sisyrinchium bellum	Blue eyed grass	0.5	1.0	12	24
Grasses					
Festuca microstachys	Small fescue	1.5	3	NA	30
Festuca rubra var. molate	Red molate fescue	2.5	5	NA	24
Hordeum brachyantherum var. salt	Meadow barley	2.5	5	NA	36
Hordeum depressum	Alkali barley	1.5	3	NA	24
Total		**10.0**	**20.0**		

Notes: PLS = pure live seed, ac = acres, lbs = pounds, NA = Not Applicable (no variance needed for grasses).

[1] Data on maximum rooting depth and height above ground sourced from the following sources: Calscape 2025, H. T. Harvey 2019. No rooting information was available for red maids; rooting depth based on professional judgement.

7.4.2 Planting Plan

Container plantings will be installed in monospecific patches throughout the salt marsh-upland T-zone habitat (Table 13). Species selected for container plantings are primarily rhizomatous and/or typically grow as dense monospecific patches in natural systems. Species to be installed within alkali meadow habitat (from 1 horizontal foot from the levee top to the HTL) will add vertical diversity to the landscape which can be used by sensitive wildlife as refuge habitat during high tide events. Additionally, because these species form dense patches, this planting design will also reduce the establishment of invasive species. Downslope of alkali meadow habitat below the HTL, common tidal salt marsh plant species are anticipated to naturally recruit. To augment natural recruitment, saltgrass and marsh gumplant will be installed using the same methods. The forb and subshrub species in Table 13 have a maximum rooting depth from approximately 10–36 inches to protect levee integrity. The size and density of plant patches will be determined during a future design phase. The container plants will be installed between November 1 and January 31 to maximize plant exposure to wet conditions during the rainy season.

Table 13. Alkali Meadow with Tidal Salt Marsh Monospecific Patch Plant Palette

Planting Zone	Scientific Name	Common Name	On-Center Spacing in Patches (Feet)	Approximate Maximum Rooting Depth (Inches)[1]
Below HTL[2]	*Distichlis spicata*	Saltgrass	2	NA
Below HTL	*Grindelia stricta*	Marsh gumplant	3	36
Above HTL[3]	*Ambrosia psilostachya*	Western ragweed	3	10
Above HTL	*Artemisia douglasiana*	California mugwort	2	24
Above HTL	*Baccharis glutinosa*	Marsh baccharis	3	23
Above HTL	*Elymus triticoides*	Creeping wildrye	2	NA
Above HTL	*Eriophyllum staechadifolium*	Lizard tail	3	20
Above HTL	*Frankenia salina*	Alkali heath	3	24

Notes: HTL = high tide line, NA = Not Applicable because no variance is required for grasses.

[1] Data on maximum rooting depth sourced from the following sources: Institute of Agriculture and Natural Resources 2007, The Nature Conservancy 2025, Montalvo and Beyers 2010, H. T. Harvey 2019. No rooting information available for lizard tail; rooting data provided is for a closely related species, *Eriophyllum confertiflorum*. No rooting information was available for mugwort; rooting depth based on professional judgement.

[2] HTL = 8.4 feet NAVD88

[3] The upper limit of this planting zone is 1 horizontal foot from the levee top.

7.4.3 Irrigation Plan

The irrigation plan for the levee slope revegetation habitats will be the same as that for the T-zone plantings described in Section 3.9.6.

7.4.4 Rationale for Deviation from USACE Levee Vegetation Guidelines

As described above, the species composition of the target habitats on the levee slopes differ from the USACE's guidelines for levee vegetation. Specifically, USACE Levee Guidelines call for a vegetation-free zone on the surface of the levee that permits only perennial grasses (USACE 2019). However, the salt marsh habitat that will be established and maintained near the toe of the levee will include native halophytic forbs and woody subshrubs (marsh gumplant) to increase habitat for SMHM, CRR, and other native wildlife. In addition, select non-native, non-invasive forbs will be allowed on the levee slopes. USACE levee vegetation guidelines also call for mowing of vegetation at least one time per year to facilitate inspections. However, to protect refugial habitat for sensitive tidal salt marsh wildlife species (e.g., CRR, SMHM), the T-zone habitat in the project area will not be mowed. The rationale for these deviations from USACE levee guidelines is further described below.

7.4.4.1 Species Selection

Forbs are defined as herbaceous (without significant woody tissue) vascular plants that are not graminoids (i.e., excluding grasses, sedges, rushes). Forbs are a natural component of upland grassland communities in California and provide pollinator habitat. Forb species are expected to continuously and profusely colonize levee slopes via natural recruitment from adjacent existing populations. Therefore, control of forbs in the upland grassland

would require either regular widespread manual removal or intensive herbicide use, in perpetuity. Manual removal would result in ground disturbance, which in turn provides opportunities for soil erosion and promotes invasive plant establishment. In addition, the majority of the project area occurs on property owned and/or managed by the Refuge. The use of herbicides applied on Refuge lands is guided by USFWS and U.S. Department of the Interior (DOI) policies and directives (517 DM 1, 569 FW 1, 524 DM 1, 242 FW 7). It is the policy of the DOI, USFWS headquarters, and USFWS Region 8, that all reasonable steps, including biological, cultural, and mechanical controls, be taken to minimize or, when feasible, eliminate dependence on chemical pest control, including herbicides. Given these directives and policies, control of short statured forbs which do not threaten levee safety do not warrant the use of herbicides and manual removal is contrary to levee safety due to the potential to exacerbate soil erosion. As a result, select native or non-native, non-invasive forbs are included in the target levee slope plant communities. Native forbs are incorporated into the planting and seeding plans, while non-native forbs are anticipated to naturally recruit from surrounding areas.

Alkali meadow habitats also incorporate seeded scrub patches with a small amount of relatively shallow-rooting shrub species. These species have an approximate maximum rooting depth from 20–60 inches (Table 7), provide highly valuable high-tide refugia, and add structural complexity to alkali meadow habitats. Scrub patches are limited to areas where floodwalls are used for flood protection in Faber and Laumeister Marshes, and the T-zone in R2. These areas were chosen for scrub patches because these areas are constructed with environmental fill, rather than embankment fill, due to the presence of the floodwall; therefore, there is substantially more distance between the critical flood protection infrastructure and the woody vegetation. In addition, tidal and non-tidal salt marsh habitats at the toe of levee slopes are anticipated to naturally recruit with marsh gumplant and marsh gumplant will also be planted per Table 13. This species occurs profusely at higher elevations within tidal marshes throughout the region and provides critical high-tide refugia within marshes, as one of the tallest salt marsh species in the tidal salt marsh ecosystem. Because this species is likely to recruit regardless of planting, is highly ecologically valuable, and is limited to the toe of slopes, it is also included despite its woody growth form.

Including a greater diversity of species on levee slopes will facilitate a high density of vegetation, which will substantially reduce weed competition, and therefore will result in less dependence on herbicide use in compliance with DOI/USFWS policy and will avoid unnecessary levee ground surface disturbance. Forbs will occupy available ground space on the levee slopes, which will reduce erosion potential and inhibit spread of invasive plants. In addition, in T-zone habitats forbs and shrubs will substantially increase the quality of refugia habitat for SMHM and CRR. Furthermore, including these species will increase the habitat value of levee slopes for pollinators, reduce the level of effort for vegetation control, and increase the aesthetic value of the levee. Allowable forbs in grassland habitats, where mowing is proposed, are not anticipated to substantially impact the level of effort for annual mowing or require specialized mowing equipment.

Allowable native forbs are described in the revegetation plan above (Tables 6, 11–13). The proposed species are anticipated to have a maximum rooting depth of approximately 6–36 inches. They consist primarily of annual herbaceous species with shallow root systems. Allowable non-native forbs will be those with shallow or

fibrous root systems, such as bur clover (*Medicago polymorpha*) and cut-leaf plantain (*Plantago coronopus*). To meet the levee safety goal, forbs with large taproots will be controlled. Examples of common non-native forbs that should be controlled are presented in Table 14.

Table 14. Examples of Common Species to Control on Levee Slopes

Scientific Name	Common Name	Growth Form	Reason for Control
Atriplex lentiformis	Brewer's salt bush	Shrub	Woody shrub
Atriplex prostrata	Fat-hen	Annual herb	Deep taproot
Atriplex semibaccata	Australian saltbush	Perennial herb	Invasive, deep taproot
Baccharis pilularis	Coyote brush	Shrub	Woody shrub, deep taproot
Brassica nigra	Black mustard	Annual herb	Invasive, deep taproot
Carduus pycnocephalus	Italian thistle	Annual herb	Invasive, deep taproot
Carduus tenuiflorus	Slenderflowered thistle	Annual herb	Invasive, deep taproot
Carpobrotus chilensis	Iceplant	Perennial herb	Invasive
Carpobrotus edulis	Iceplant	Perennial herb	Invasive
Centaurea calcitrapa	Purple starthistle	Annual/ Perennial herb	Invasive, deep taproot
Centaurea solstitialis	Yellow starthistle	Annual herb	Invasive, deep taproot
Cirsium vulgare	Bull thistle	Perennial herb	Invasive, deep taproot
Conium maculatum	Hemlock	Perennial herb	Invasive, deep taproot
Cynara cardunculus	Artichoke thistle	Perennial herb	Invasive, deep taproot
Dittrichia graveolens	Stinkwort	Annual herb	Invasive
Foeniculum vulgare	Fennel	Perennial herb	Invasive, deep taproot
Hirschfeldia incana	Mediterranean hoary mustard	Perennial herb	Invasive, deep taproot
Lepidium latifolium	Perennial pepperweed	Perennial herb	Invasive, deep taproot
Limonium ramosissimum	Algerian sea lavender	Perennial herb	Invasive
Malva parviflora	Cheeseweed	Annual herb	Deep taproot
Mesembryanthemum nodiflorum	Slender leafed ice plant	Annual herb	Invasive
Myoporum laetum	Lollipop tree	Tree/Shrub	Invasive; woody tree/shrub; deep taproot
Plantago lanceolata		Perennial herb	Non-native with deep taproot
Plantago major		Perennial herb	Non-native with deep taproot
Raphanus sativus	Radish	Annual herb	Deep taproot
Rumex crispus	Curly dock	Perennial herb	Deep taproot
Salsola soda	Alkali thistle	Annual herb	Invasive
Salsola tragus	Russian thistle	Annual herb	Deep taproot
Silybum marianum	Milkthistle	Annual/ Perennial herb	Deep taproot

Scientific Name	Common Name	Growth Form	Reason for Control
Spartina alterniflora x *foliosa*	Hybrid Spartina	Gramminoid	Invasive
Tetragonia tetragonioides	New Zealand spinach	Annual herb	Fast growing, highly competitive non-native

7.4.4.2 Mowing for Levee Inspections

As described above, refugial habitat for special-status wildlife species (CRR and SMHM) is a key function of the alkali meadow and salt marsh dominated T-zone habitats throughout the project area. H. T. Harvey wildlife ecologists have previously defined high-quality high tide refugia habitat in the project's T-zones as follows: an area beginning at the marsh HTL that is: (1) at least 20 feet wide, with (2) substantial cover (>25%) of grasses and/or scattered subshrubs, and (3) vegetation predominantly greater than 1 foot tall (H. T. Harvey 2023). Therefore, the basis of design and revegetation plan for salt marsh and alkali meadow habitats incorporates a diversity of vegetation that typically grows to greater than 1 foot tall and, where feasible while protecting levee integrity, shrubs or subshrubs. However, USACE levee vegetation guidelines include regular mowing on levee slopes for visibility of the levee for inspections. Specifically, it recommends that vegetation be mowed to a height of 3–6" any time it reaches a height of 12", or at least once annually. This is in direct conflict with habitat goals in T-zone areas and salt marsh habitat at the toe of slopes. Allowing vegetation to grow to greater than 1 foot in height but mowing annually (in summer) would require 3–6 months for vegetation to recover to suitable height for high tide refugia, leaving an absence of refugia for up to half of the year. In addition, the likelihood of special-status wildlife species being present in these habitats would require wildlife surveys prior to all mowing events. Therefore, we recommend that no mowing be conducted in alkali meadow/T-zone habitats with the exception of mowing ~1-foot wide strip from the top hinge point of the levee, which will prevent overgrowth of trails and maintenance roads (Figure 14). On levee slopes with grassland or short stature, moderate density grassland above salt marsh habitat, it is recommended that mowing occur only to the upper extent of marsh vegetation. In the latter case, this will protect sensitive wildlife species while allowing sufficient mowing to conduct levee inspections.

Section 8.0 Slough Channel Replacement in Existing Faber, Laumeister, Ravenswood, and Moseley Marshes

8.1 Goals

The SAFER Bay levee alignment was designed to avoid impacts to the existing tidal marsh to the extent feasible. However, some levee segments and/or the bayward construction buffer intrude into existing tidal marsh. These intrusions are necessary to avoid conflicts with infrastructure, contamination sites, and/or private land ownership (HDR 2024a).

For some of these intrusions, the levee footprint or the bayward construction buffer necessary for access and dewatering will fill tidal channels that currently provide hydraulic connectivity to marsh areas otherwise unaffected by the levee. Without this hydraulic connectivity, the associated marsh areas would experience altered tidal inundation impairing marsh vegetation and habitat function. To minimize the impacts of filling these channels, replacement tidal channels will be constructed as a first order of work to provide alternative hydraulic connectivity pathways. Impacted channels are identified in Faber Marsh, Laumeister Marsh, Ravenswood Open Space, Ravenswood Slough and the Moseley Tract.

This section describes how impacted channels are identified, design of the replacement channels and associated high-tide refugia berms, construction methods, the proposed earthwork, and post-construction revegetation.

8.2 Identification of Impacted Tidal Channels

To identify which tidal channels could potentially be impacted by the SAFER Bay levee that warrant replacement with new mitigation channels, tidal channels with all of the following characteristics are considered impacted:

- Located within the levee footprint or within a 10-foot buffer from the levee toe, as channels this close will be impacted by construction activities (e.g. temporary sheet pile walls for water control, construction equipment working on toe of levee) and will be filled to reduce erosion hazard at levee toe.
- Having channel top width of approximately two feet or greater.
- Providing hydraulic connectivity to a substantial network of tidal channels and/or substantial area of tidal marsh that will not otherwise be impacted by the SAFER levee but could be impacted if tidal exchange is reduced by fill of tidal channels.

Channels smaller than two feet wide are assumed to be small enough and high enough in the tide range that filling these would cause negligible reduction in tidal connectivity to the marsh plain. Any minor effects caused

by filling channels less than two feet wide would be offset by flow over the marsh plain and/or new channels of this size and function developing on their own.

For impacted channels that will be filled by the levee, it may be necessary to fill short segments of the impacted channels that occur just outside of the levee footprint, to reduce the potential for future erosion at the levee toe. Therefore, in addition to the channel underneath the levee, an allowance is assumed for filling a 10-foot channel segment leading up to the levee.

For channels that enter the 10-foot buffer from the levee toe but do not pass under the levee, it will likely be necessary to fill only a short reach of the impacted channel segment with a ditch block to discourage flow. At minimum, ditch blocks approximately 30 feet long and across the impacted channel width should be built at the location closest to the levee toe. In the long term, blocking flow with a ditch block is expected to cause much, if not all, of the impacted channel to fill with sediment and convert from channel to marsh.

The factors above were considered when reviewing aerial photography of the existing marshes along the entire SAFER Bay alignment. From south to north, the marshes with impacted channels are: Faber Tract (Figure 20), Laumeister Marsh (Figure 21), Ravenswood Open Space Preserve (Figure 22), Ravenswood Slough (Figure 23), and the Moseley Tract (Figure 24).

This assessment provides an upper bound of potential impacts; it may be possible to avoid or reduce some of these impacts during design refinement or with field fitting during construction. For example, where potentially impacted channels are within 10 feet of levee toe but not directly filled by the levee, construction methods may allow for not needing a new channel. However, for purposes of assessing impacts for the DEIR, the maximum extent of potentially impacted channels was identified.

8.3 Design of Replacement Channels

Tidal channels that meet the criteria above for being impacted will be replaced with newly constructed tidal channels. The primary purpose of the replacement channels is to maintain hydraulic connectivity to the adjacent tidal salt marsh during and after construction of the levee. The criteria for design of new tidal channels are as follows:

- Channel alignment
    - Top of bank at least 20 feet from proposed levee toe
    - Use existing channels where possible, enlarging as necessary
    - Similar sinuosity as the impacted channel, where feasible
- Similar width and depth as the impacted channel to allow for similar hydraulic conveyance as the impacted channel

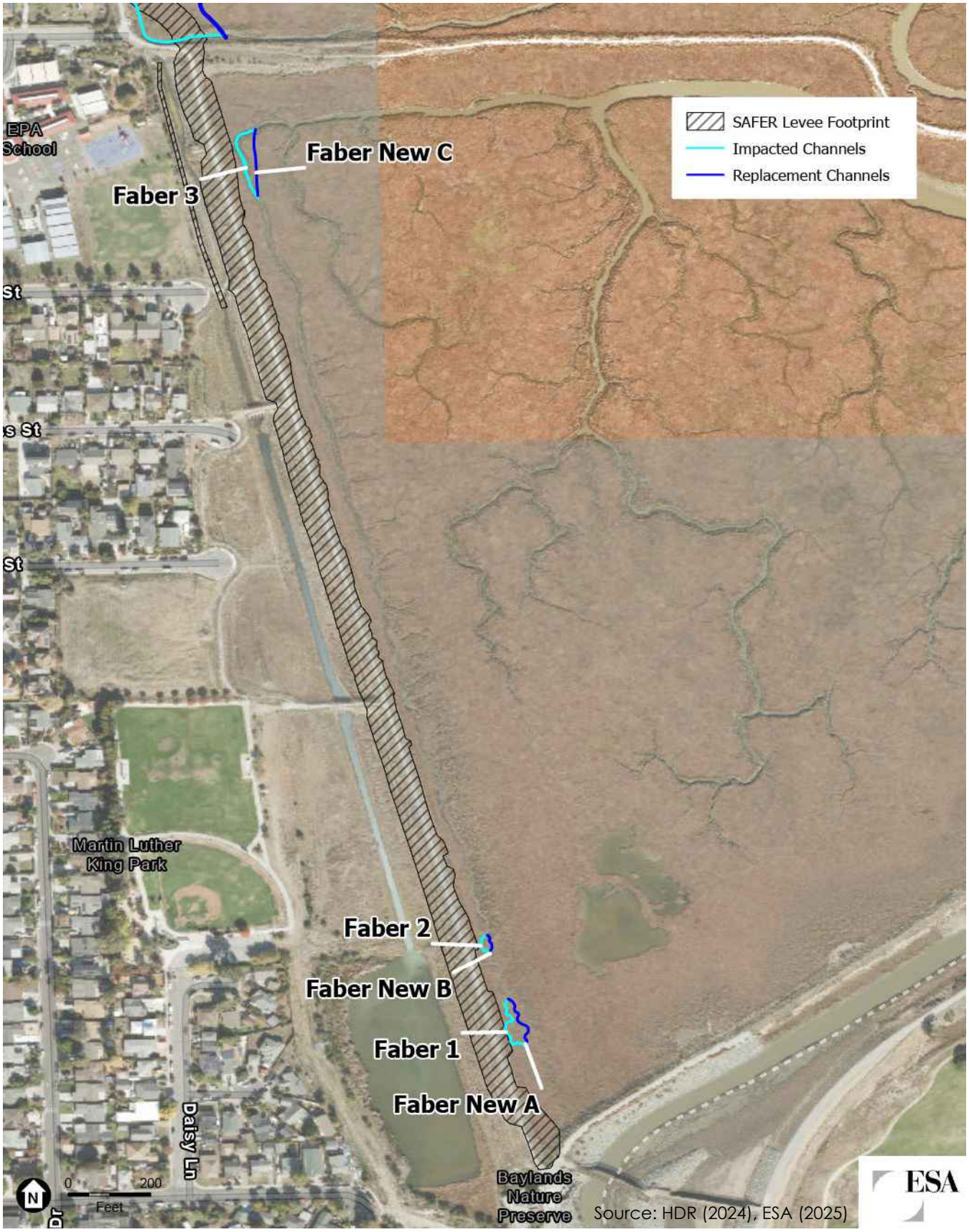

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Figure 20. Impacted and Replacement Tidal Channels in Faber Marsh

SAFER Bay Project - Ecological Basis of Design for Project Level Reaches (3550-05)
April 2026

H.T. HARVEY & ASSOCIATES
Ecological Consultants

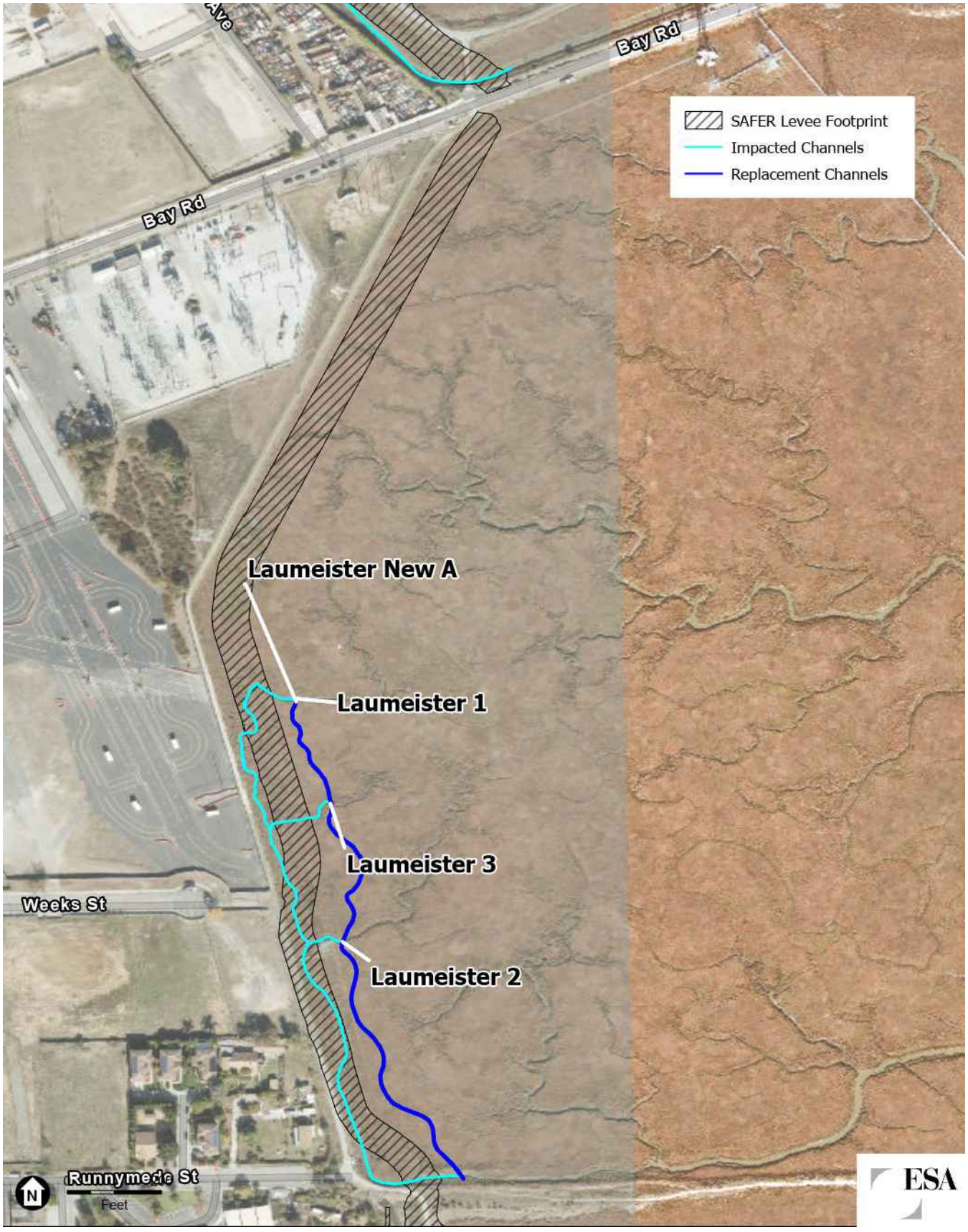

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Figure 21. Impacted and Replacement Tidal Channels in Laumeister Marsh

SAFER Bay Project - Ecological Basis of Design for Project Level Reaches (3550-05)
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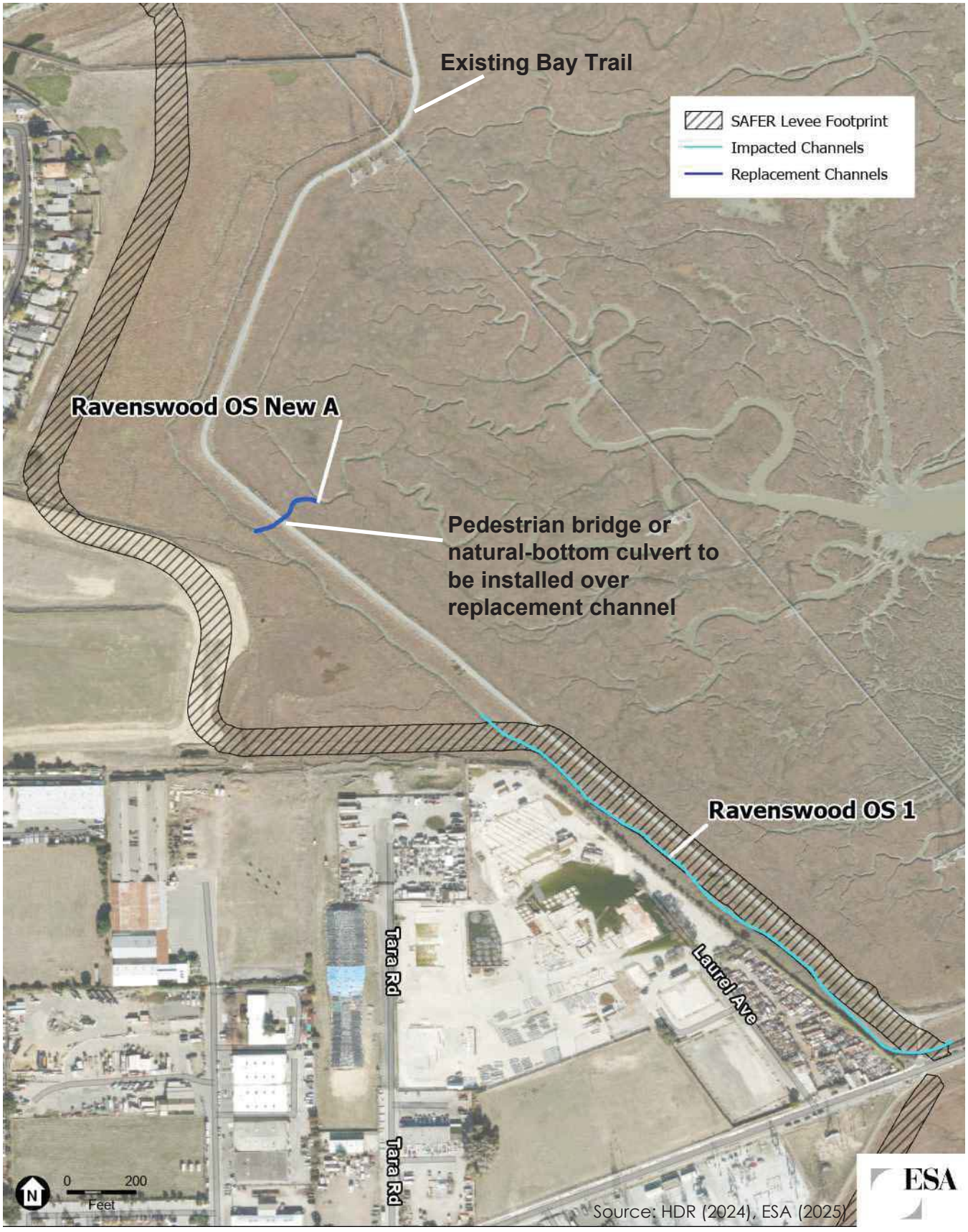

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Figure 22. Impacted and Replacement Tidal Channels in Ravenswood Open Space Preserve

SAFER Bay Project - Ecological Basis of Design for Project Level Reaches (3550-05)

April 2026

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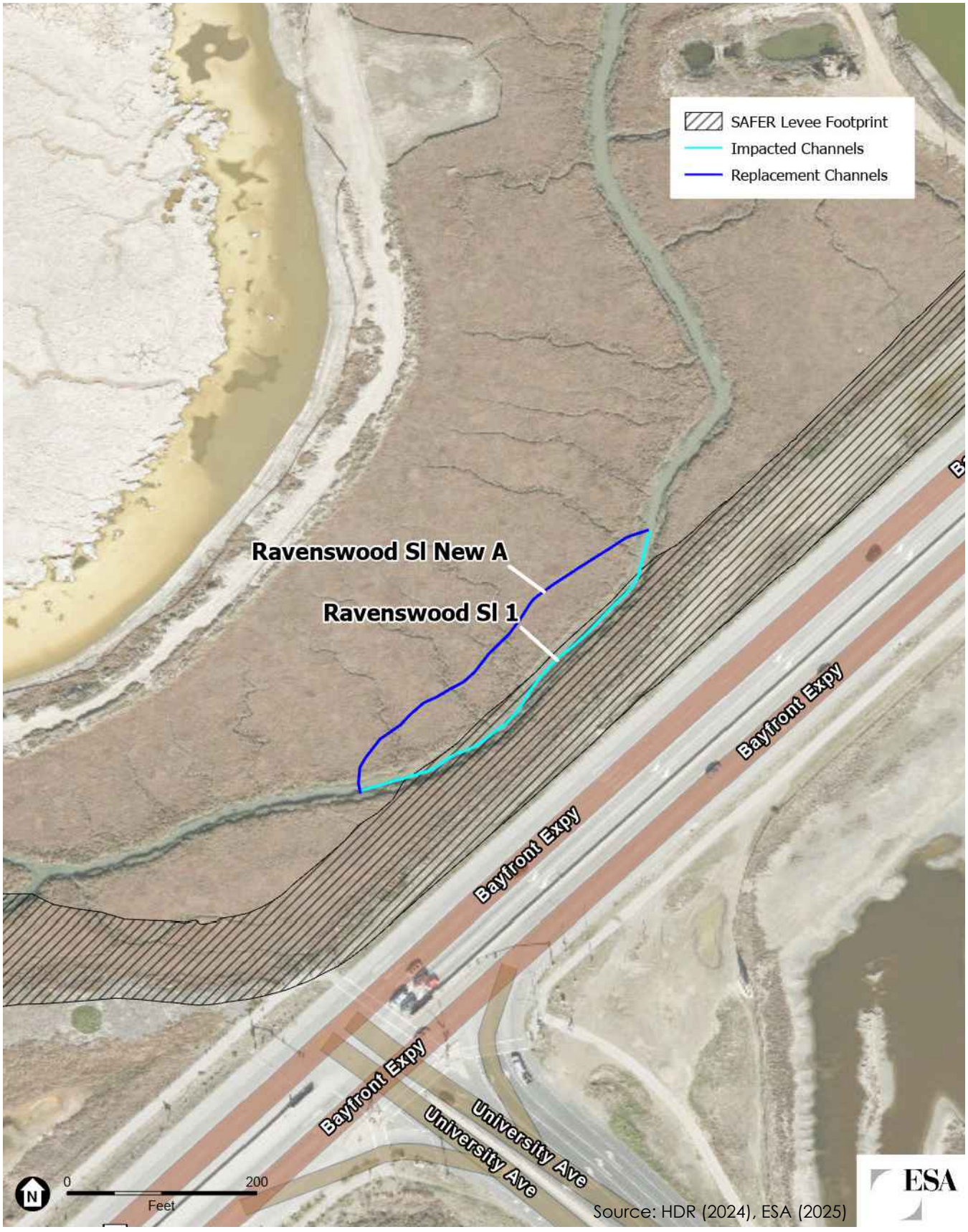

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Figure 23. Impacted and Replacement Tidal Channels in Ravenswood Slough

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April 2026

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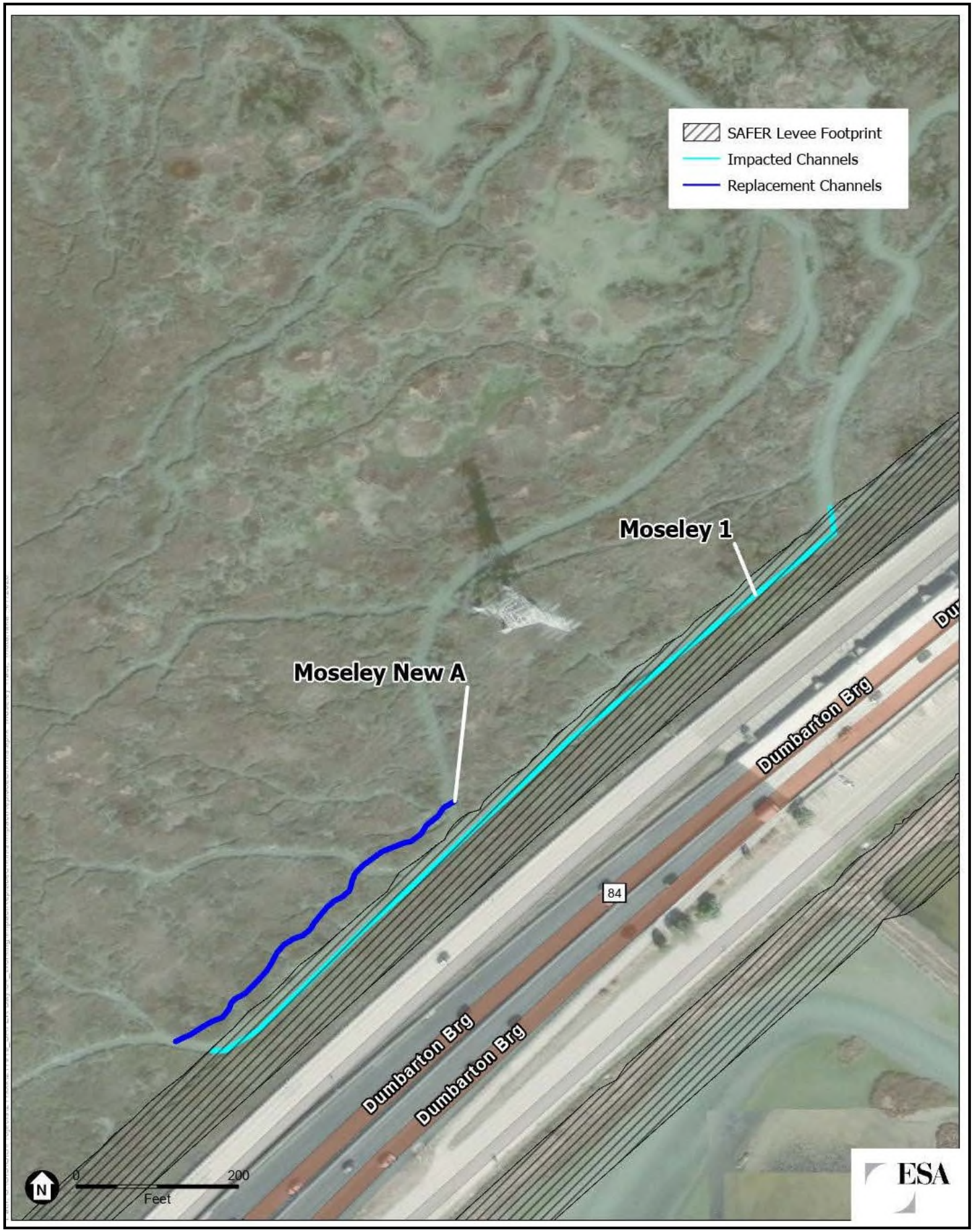

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Figure 24. Impacted and Replacement Tidal Channels in Moseley Tract

SAFER Bay Project - Ecological Basis of Design for Project Level Reaches (3550-05)
April 2026

Note that the new channels are intended to provide for continued tidal marsh drainage and do not fully replace the length of impacted channels. The decrease in overall channel length will be offset by the restoration of tidal marsh and associated channels in Pond R1 and Pond R2.

The proposed replacement channels are shown for Faber Tract (Figure 20), Laumeister Marsh (Figure 21), Ravenswood Open Space Preserve (Figure 22), Ravenswood Slough (Figure 23), and Moseley Tract (Figure 24).

8.4 Design of High-Tide Refugia Berms

The bay mud excavated to construct the new tidal channels will be used to construct high-tide refugia berms along both sides of the replacement channels. Refugia berms mimic berms along natural channels and provide higher elevations for high marsh plant species (e.g., marsh gumplant) and refugia habitat to terrestrial marsh animal species when high tide water levels inundate the marsh plain. This action will balance impacts to existing in-marsh high tide refugia along the tidal channels to be filled.

Before placing the bay mud to create the berms, marsh sod within the berm footprint will be temporarily removed/salvaged, then replanted on the tops of berms to facilitate revegetation. Revegetation is briefly discussed in Section 8.6. Any excess fill generated from channel excavation that is not used to construct berms will either be used to partially fill an impacted channel or hauled off-site.

Crests of the refugia berms will be approximately one foot above the existing marsh plain (after settlement) and no higher than the highest annual tide. The initial allowance for settlement of the berms due to the new fill is assumed to be one foot; this allowance should be refined in later stages of design. The berms will be 10 feet wide at the base, have a target crest width of approximately 4 feet, and a 3:1 side slope to marsh grade. This cross section is approximate and need not be exact. Refugia berms will be offset from the channel edge to avoid de-stabilizing the banks of the newly constructed channels. Ideally, the offset would be approximately 2–5 feet, to encourage drainage of the berms, but may be up to 10 feet if required for bank stability. Refugia berms will be discontinuous to allow pathways for flow over the marsh plain. Berms will extend approximately 50 feet along the channel, with a five-foot gap along the channel profile between berms to allow for over-marsh tidal flow.

8.5 Earthwork

8.5.1 Construction Methods for Impacted Channels, Replacement Channels, and Refugia Berms

Details of construction methods will be left up to the contractor, with construction specifications aimed at minimizing construction impacts to marsh habitat. To estimate the initial construction quantities and potential impacts, we made the following assumptions:

- Excavation of the new channels would occur before levee construction to reduce temporary impacts to marshes, via lack of hydraulic connectivity, during levee construction (which could take 1–2 construction seasons).
- Given the marsh's soft soils, contractors will need to use LGP equipment and with marsh mats, if needed to reduce topographic impacts to existing marsh outside of the new channel and berm footprint. Equipment could include tracked LGP excavators, tracked LGP dump trucks, and/or amphibious excavators. Whichever equipment and methods are used, work outside of the new channels and high-tide refugia berms will not result in any new depressions on the marsh plain, such that after work is completed, the elevation of the marsh plain will equal the pre-existing elevation.
- For filling short reaches of the impacted channels outside of the levee footprint, construction equipment will need to access the channels from the levee toe. Marsh equipment may be used (same as for the new channel excavation) or it may be possible to fill the impacted channels using a long-reach excavator positioned at the levee toe.
- When construction equipment must enter the marsh, construction equipment will be allowed in the following construction corridors within which disturbance will occur. These widths are based on construction specifications at other recent marsh restoration projects (Sonoma Creek and Lower Walnut Creek). The actual disturbance width may be less, such as if small excavation volumes result in fewer berms, if some impacts to channels in the construction buffer area are avoided, or if more specialized equipment is used. These corridors are assumed to be wide enough that construction equipment and/or matting will not traverse existing high-tide refugia vegetation while staying within these buffer distances.
    - For channels less than 10 feet wide, assume a 40-foot wide corridor.
    - For channels 10–20-foot wide, assume a 50-foot wide corridor.
    - For channels 20-foot wide or greater, assume a 100-foot wide corridor.
- Construction equipment will remain entirely within the corridor except for access to and from the channel. Equipment will excavate material ahead of itself and side cast fill to create refugia berms on either side. Access across the marsh will be required at one end of each channel. The allowed access corridor will be the same width as for the associated channel construction.
- Excavation of larger channels may generate more soil than can be placed along the channel to create the berms. In that instance, the excess material will be off-hauled from that particular channel excavation. It may be used to:
    - fill sections of the impacted channels that terminate at the new levee or are deemed too close to the new levee,
    - to create high-tide refugia berms along other replacement channels that still have capacity for additional soil to create refugia berms,

- or off-hauled for reuse at other project locations (e.g., Pond R1 and/or Pond R2) or off-hauled outside the project area.

8.5.2 Channel Excavation and Fill Quantities

Construction excavation and fill quantities have been estimated for impacted channels in Table 15 and for replacement channels in Table 16. The method and accuracy of these quantities are consistent with assessing impacts and construction quantities for CEQA purposes.

The depths of the existing impacted channels have not been surveyed. These channels' depths are estimated from their top widths and hydraulic geometry relationships (Williams et al. 2002). While estimated excavation volumes are based on hydraulic geometry relationships for natural channels, construction of the new replacement channels may require some adaptations. For instance, channel side slopes may need to be less steep, since soil may not be as well consolidated.

The replacement channel in the Ravenswood Open Space Preserve will need to cross the existing Bay Trail embankment. This will require excavating through the embankment for the channel and then constructing a bridge or natural-bottom culvert for the channel, such that trail connectivity can be maintained. The dimensions for this channel are based on hydraulic geometry relationships for the marsh area landward of the embankment that is not already connected to the bay via an existing tidal channel along the north side of the embankment.

Table 15. Impacted Tidal Channel Quantities

Impacted Tidal Channel	Reason Impacted	Length (Feet)	Top Width (Feet)	Surface Area (Acres)	Channel Cross Section Area (square feet)	Fill Volume (Cubic Yard)
Faber 1	Within 10 feet of levee toe	161	3	0.01	4.01	24
Faber 2	Within 10 feet of levee toe	60	3	0.00	4.01	9
Faber 3	Within 10 feet of levee toe	192	6	0.03	10.63	76
Laumeister 1	Underneath levee	1,372	10	0.31	21.82	1,109
Laumeister 2	Partially underneath levee	61	4	0.01	6.01	14
Laumeister 3	Partially underneath levee	125	4	0.01	6.01	28
Ravenswood Open Space Preserve 1	Underneath levee	1,513	20	0.69	57.91	3,245
Ravenswood Slough 1	Underneath levee	390	20	0.18	57.91	836
Moseley Tract	Underneath levee	917	20	0.42	57.91	1,967
Totals		**4,791**		**1.67**		**7,307**

Notes:

1. Channel alignments, lengths, and top widths delineated from aerial imagery in Google Earth.
2. Channel cross sectional areas are from hydraulic geometry relationships between top width, tidal prism, and channel depth/cross-sectional area (Williams et al. 2002).

Table 16. Replacement Tidal Channel Quantities

Replacement Tidal Channel	Length (Feet)	Top Width (Feet)	Channel Area (Acres)	Construction Corridor Width (Feet)	Construction Impact Area (Acres)	Channel Cross Section Area (square feet)	Excavated Volume (Cubic Yard)	Refugia Berm Volume (Cubic Yard)	Off-Haul Volume (Cubic Yard)
Faber New A	138	2	0.010	40	0.15	4.01	20	20	-
Faber New B	51	2	0.004	40	0.05	4.01	8	8	-
Faber New C	192	5	0.022	40	0.15	10.6	64	64	-
Laumeister New A	1,141	12	0.26	50	1.31	21.8	922	761	162
Ravenswood Open Space Preserve New A	188	20	0.09	100	0.43	57.9	403	125	278
Ravenswood Slough New A	382	18	0.18	100	0.88	57.9	819	255	565
Moseley A	416	20	0.19	100	0.96	57.9	892	277	615
Totals	**2,478**		**0.75**		**3.91**		**3,129**	**1,652**	**1,619**

Notes:

1. Channel alignments and lengths delineated from aerial imagery in Google Earth.
2. Top width of replacement channel match corresponding impacted channel.
3. Construction corridor width (based on top width of replacement channel and reference construction sites) is inclusive of new channel and construction access.
4. For Faber Tract replacement channels, which do not connect directly to levee toe, an additional 20-foot allowance added to length of access corridor.
5. Channel cross sectional areas are from hydraulic geometry relationships between top width, tidal prism, and cross-sectional area (Williams et al. 2002).
6. Maximum potential refugia berm volume assumes fill in 10-foot wide band on both sides of channel, to depth of 1 foot, and 90% of channel length (to allow for breaks in berms for overmarsh flow). If excavated volume exceeds maximum potential refugia volume, remaining volume will be off-hauled.
7. Losses due to consolidation and/or settlement of excavated material once placed in berm are not included. May range from range 20–25% which would reduce long-term berm dimensions/volume.

8.5.3 Restoration of Temporary Construction Impacts to Tidal Marsh

The new replacement channels will create areas of permanent conversions from marsh to channel. The ditch blocks will be a permanent conversion from channel to marsh. Temporary impacts to tidal marsh will occur within the rest of the construction corridor outside of the new channels, ditch blocks, and refugia berms. Within the temporary impact area and outside of the refugia berm footprints, the tidal marsh plain topography and substrate will be restored to the pre-impact condition immediately following construction of the replacement channels and in-marsh refugia berms. These areas will then be actively revegetated with container plantings of dominant high marsh species to facilitate rapid re-establishment of dense native marsh plain vegetation to ensure that these impacts are temporary.

8.6 Revegetation of In-Marsh High-Tide Refugia Berms

The fill excavated to construct the new tidal channels will be used to construct high-tide refugia berms along the replacement channels. These areas will be revegetated through a combination of salvage and reuse of marsh sod and marsh gumplant container plant installation. Marsh sod will be salvaged from the footprint of new channel excavation prior to channel excavation. Marsh sod is defined as 1 to 4 foot square x 0.5 foot deep blocks of marsh topsoil, with the root mass and above ground vegetation kept alive and intact. The purpose is to recreate the in-marsh refugia habitat that is present in Faber and Laumeister marshes along existing slough channels. A revegetation plan will be developed during preparation of the projects' Habitat Restoration and Monitoring Plan and submitted for BRRIT approval during the BRRIT permitting process.

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Appendix A. Projected Marsh Accretion Modeling

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memorandum

date	April 4, 2025
to	Tess Byler, PG, CHG, San Francisquito Creek Joint Powers Authority
cc	
from	Derek Morimoto, PE, Michelle Orr, PE, and Matt Brennan, PhD, PE
subject	SAFER Bay Project – Tidal Marsh Evolution and Blue Carbon Assessment Technical Memorandum – FINAL

1 Introduction

This technical memo, prepared in support of the San Francisquito Creek Joint Powers Authority's (SFCJPA) Strategy to Advance Flood Protection, Ecosystems, and Recreation along San Francisco Bay Project (SAFER Bay Project or Project), presents an assessment of how Ponds R1/R2 and nearby existing tidal marshes are expected to evolve over time with sea level rise. The analyses include:

1. sediment accretion modeling,
2. mapping sedimentation across the areas of interest to model bed elevation change,
3. likely habitat types associated with increasing bed elevations, and
4. blue carbon stocks and greenhouse gas sequestration.

The results of this technical memo will inform design elements of proposed Ponds R1 and R2 tidal wetland restoration to meet the Project's multiple objectives, which include flood protection and habitat restoration, ultimately creating a project with net ecological lift.

2 Sedimentation Modeling

The remnant marsh plain in Ponds R1 and R2 is subsided and generally too low in elevation to support tidal marsh vegetation once tidal inundation is restored. Over time, estuarine deposition will raise site elevations, and if deposition exceeds the rate of sea level rise, tidal vegetation can establish. ESA assessed marsh sedimentation to evaluate the potential for the restored site to convert from tidal mudflat to vegetated marsh over time.

2.1 MARSH98 Model

Sediment accretion in tidal marshes results from suspended sediment deposition and organic matter accumulation within bed sediments once vegetation is established. Sediment deposition dynamics within a tidal estuary setting are influenced by a wide array of factors, such as suspended sediment quantity and composition, physical and

chemical properties within the water column, and regional and local-scale hydrodynamic and wave conditions. For full representation in multi-decade computational modeling, all these processes require substantial data inputs and computation time.

We used an approach based on Krone (1985) that leverages simplifying assumptions about the key processes to distill them into an accretion model that estimates bed elevations changes over time with sea level rise. This computational model developed by ESA, called MARSH98, is then calibrated to observations at existing reference sites. This approach, tested at multiple San Francisco Bay restoration sites, has demonstrated its validity and utility over several decades of restoration practice (Orr et al. 2003, Stralberg et al. 2011).

The MARSH98 model was applied in two steps:

1. The model was calibrated by performing a set of model runs to select input parameters that best reproduce observed historic sediment accretion rates at San Francisco Bay tidal marsh restoration sites near the Ravenswood Pond Complex.

2. The model was run using the calibrated parameters to forecast bed elevations at Ponds R1 and R2 and nearby existing marshes with anticipated sea level rise from 2030 to 2100. (Discussed in Section 3)

2.2 Model Input Parameters

MARSH98 requires several input parameters, such as tide water levels, organic accretion rate, sea level rise scenario, and ambient suspended sediment concentration. Most parameters were selected based on available local measurements and typical regional values. The suspended sediment concentration was selected based on results of the calibration, discussed further in the next section.

Table 1 summarizes the key input parameters used for SAFER Bay's MARSH98 model.

Table 2 provides sea level rise by decade for San Francisco from the California Ocean Protection Council (OPC) (2024). The Intermediate (INT) Scenario, considered by OPC to be an upper bound for the most likely future conditions, was used for the base case assessment, following OPC guidance for restoring natural infrastructure. The Intermediate-High (INT-HIGH) Scenario is considered in the sensitivity assessment (see Section 4.2).

TABLE 1
SUMMARY OF MARSH98 INPUT PARAMETERS

Parameter	Value	Explanation
Tide Water Level	Full range of Bay water fluctuations	Used water level data collected by the City of Mountain View on the outboard side of Inner Charleston Slough's tide gates because differences in tidal datums between SAFER Bay and Charleston Slough have negligible effects on model results over the timescale investigated.
Sea Level Rise	3.1 ft NAVD by 2100	Based on OPC (2024) for the Intermediate Sea Level Rise Scenario. See Table 2.
Model Start Date	Year 2030	Approximate year Ponds R1 and R2 will be restored.
Organic Accretion Rate	0 mm/yr	Assumed no accretion.[a]
Bed Bulk Density	560 kg/m^3	Comparable to values measured by Callaway et al. (2013) in vegetated marshes at restored Pond A21 and consistent with bulk density used by Orr et al. (2003).
Settling Velocity Coefficient	0.00019 m^5/kg$^{4/3}$/s	Observed settling velocity in South San Francisco Bay, just offshore of Inner Charleston Slough, which is near the project site (Manning and Schoellhamer 2013).
Representative Suspended Sediment Concentration	75 mg/L	Calibrated value that resulted in the best match to observed bed elevations in reference sites, as described below in Section 2.3.

NOTES:

a. Organic accretion occurs once vegetation has established. See Section 4.2 for discussion of why assuming no accretion is expected to have only a small effect on results.

TABLE 2. SEA LEVEL RISE SCENARIOS

Year	Intermediate (INT)	Intermediate-High (INT-HIGH)
2020	0.2	0.3
2030	0.4	0.4
2040	0.6	0.7
2050	0.8	1.0
2060	1.1	1.5
2070	1.4	2.2
2080	1.8	3.0
2090	2.4	3.8
2100	3.1	4.8

SOURCE: Ocean Protection Council (2024)

NOTE: Sea level rise is measured from Year 2000.

2.3 Calibration

The representative suspended sediment concentration, a key parameter for the sediment accretion model, was calibrated for use in the model. It represents the sediment concentration available within the water column that can settle onto the bed as net accretion and causes bed elevations to increase. Actual suspended sediment concentrations, as collected by the United States Geologic Survey (USGS) and others, vary with location and fluctuate across multiple time scales, such as tides, seasonal variations, wave and rain events, and multi-year trends such as El Niño and regional droughts. It is beyond the scope of this analysis to simulate all the spatial and

temporal variability in suspended sediment concentration; instead, the MARSH98 model uses a representative constant suspended sediment concentration selected to reproduce observed rates of sediment accretion.

ESA calibrated the MARSH98 model with an appropriate suspended sediment concentration that represents conditions at Ponds R1/R2 and vicinity. To select this calibrated suspended sediment concentration, ESA ran MARSH98 for a range of suspended sediment concentrations. Results were compared to observed rates of bed elevation change based on monitoring reports at the following nearby restoration sites: Ravenswood Open Space (Cooley Landing) and South Bay Salt Pond Restoration Ponds A21 and A6 (ESA et al. 2011, Callaway et al. 2013). Figure 1 shows the locations of the reference sites with respect to the project. Figure 2 shows a series of historic aerial photos of Cooley Landing showing the emergence and evolution of vegetated tidal marsh since the site's breaching in 2000. Figure 3 and Figure 4 shows similar photo-series for Ponds A21 and A6, respectively. Pond A21 was breached in 2006. Pond A6 was breached in 2010 and has accreted almost three feet of sediment in the first five years after breaching. Since Pond A6's bed elevation was relatively low, the site had not yet accreted enough sediment for vegetation to establish as of the time of the most recent monitoring data in 2013. Aerial photographs of Pond A6 from the last few years show marsh vegetation starting to establish on the eastern portion of the site. We also considered the Bair Island and Moseley Tract restorations as potential calibration sites. The Bair Island Monitoring Reports, however, had limited data that could be used to quantify sediment accretion (United States Fish and Wildlife Service (USFWS) 2024). No monitoring is available for the Moseley Tract site. Although these two sites do not have sufficient data for MARSH98 calibration, aerial photographs indicate that both sites have evolved enough geomorphically for robust marsh vegetation to establish on the former mudflats.

MARSH98 calibration results are shown in Figure 5. From comparing the modeled trajectories with observed elevation changes at the reference sites, ESA identified 75 mg/L as a representative suspended sediment concentration for forecasting accretion within R1 and R2. The calibrated value results in modeled bed elevations that track the mid to lower end of observations for all reference sites, so it is less likely to overstate future accretion. See Section 4.2 for discussion of how potential future changes in suspended sediment concentration may affect the model results.

Note that the reference sites include a range of initial bed elevations, starting from the lowest initial elevations in Figure 5a, and progressing to the highest initial elevation in Figure 5e. Therefore, even though the reference data spans at most a decade at each site, when these five panels are viewed together, the modeled results cover a range of elevations, implying fidelity to observations corresponding to multiple decades of accretion. As another point of reference, 15-minute and daily average suspended sediment concentrations observed at Dumbarton Bridge (USGS Gage #373015122071000) are plotted in Figure 6. The data exhibits substantial variability caused by processes beyond the scope of this analysis. However, these data show that the suspended sediment concentration selected for the MARSH98 modeling, 75 mg/L, is generally consistent with typical daily average observations.

3 Mapping Bed Elevation Change

After input parameter selection and calibration, MARSH98 was used to forecast bed elevation change at Ponds R1/R2 and for nearby marshes along the levee footprint to assess habitat evolution and resilience to sea level rise. Figure 7, inset B, shows modeled sediment accretion trajectories for initial bed elevations ranging from -2 ft[1] to +12 ft, under the Intermediate Sea Level Rise Scenario. The 75 mg/L calibrated suspended sediment

[1] All elevations presented in this technical memo are based on North American Vertical Datum 1988 (NAVD88) unless otherwise stated.

concentration was used to assess sediment accretion trajectories starting from 2030, the assumed start date for restoration (approximate). Select tidal datums and habitat thresholds are plotted on Figure 7, inset B, for reference (discussed in Section 4.1 below).

Based on the trajectories in Figure 7, inset B, sedimentation is sufficient to raise areas of Ponds R1/R2 even as low as -2 ft to elevations high enough to support marsh vegetation. The apple green line on the plot signifies the threshold above which tidal marsh vegetation is expected to colonize. At Ponds R1/R2, elevations of the remnant marsh plain are approximately 4 ft (typical) and the borrow ditch beds are 0 ft (typical). For the existing marshes along the levee footprint—Faber Tract, Laumeister Marsh, and Ravenswood Open Space (Cooley Landing)—modeled sedimentation is sufficient to maintain vegetated conditions. These existing marshes start higher in elevation. The model indicates that existing marshes will sustain as vegetated marsh through 2100, though they will be slightly lower in the tidal frame.

The modeled sediment accretion trajectories were applied to a digital elevation model (DEM) of Ponds R1 and R2 with 1-ft horizontal resolution. The DEM was created from a combination of aerial (i.e., Light Detection and Ranging (LiDAR)) and bathymetric surveys. LiDAR data was obtained from a 2023 flight survey conducted by Towill, Inc. ESA performed a supplementary bathymetric survey of large channels within the site using real-time kinematic global positioning system (RTK GPS) and an echosounder in March 2024. For all survey data, the horizontal datum is North American Datum 1983 (NAD83) with a projected coordinate system of NAD83 (2011) StatePlane California III Federal Information Processing Standards 0403 (U.S. ft). The vertical datum is the North American Vertical Datum of 1988 (NAVD88). The supplementary bathymetric data, along with proposed levee breach and habitat island grading, were added to the Towill LiDAR surface in AutoCAD Civil3D and exported to ArcGIS Pro.

The combined DEM was used as the 2030 starting year for projecting sediment accretion to 2100. For each cell within the DEM, sediment accretion was assigned according to the MARSH98 modeled accretion trajectory with the same starting elevation (Figure 7, inset B). By combining each cell's trajectory, DEMs were created for 2030, 2040, 2050, 2060, 2080, and 2100, which were then used to estimate tidal marsh evolution, as described in the next section.

4 Tidal Marsh Habitat Evolution

4.1 Habitat Projections

Coastal wetland habitats can be generally characterized based on the elevation of the land relative to tidal datums, with tidal datums serving as a surrogate for the frequency and duration of tidal inundation. At the site, the lowest areas are subtidal, followed by intertidal mudflat, vegetated tidal marsh, upland transition, and upland. Dumbarton Bridge gage tidal datums summarized in Table 3 were used to determine the upper and lower elevation limits used for mapping habitat types in Table 4. The estimated vegetation colonization elevation is consistent with those provided for San Francisco Bay by Williams and Orr (2002) and H. T. Harvey & Associates and PWA (2005). ESA identified non-borrow ditch areas with bed elevations below 2.0 ft as corresponding to tidal channels, which are assumed not to accrete sediment due to scouring by concentrated tidal flows.

The habitat types are overlaid on the expected accretion trajectories from Figure 7, inset B. For predicting future habitat evolution, these habitat elevation ranges are assumed to increase over time at the same rate as sea level rise. This assumption is based on the understanding that the habitat range for tidal wetland vegetation is largely

determined by the tides and the resulting inundation frequency and soil moisture. Thus, starting elevations for 2030 are incremented by 0.4 ft to account for sea level rise between 2000 (the approximate timeframe for tidal datum and vegetation threshold data collection) and 2030.

The habitat elevation ranges in Table 4, escalated with the corresponding amount of sea level rise, were used to map likely habitat evolution across the future DEMs. Figure 8 shows the forecast spatial extents of tidal marsh habitats for 2030, 2040, 2050, 2060, 2080, and 2100. Table 5 tabulates the total area within each habitat type for 2030 and future conditions. Since the mapping methods are not able to resolve the smaller marsh channels (they map as marsh), we adjusted the marsh area down by 8% and added 8% to the subtidal habitat type. The table's distribution of evolving habitats is also plotted in Figure 9.

Note that the methods used to produce the maps in Figure 8 and tabulated areas in Table 5 and Figure 9 show habitat bands based on tidal elevation and do not account for the time required for vegetation colonization. Since vegetation will take time to establish once the colonization elevation threshold is reached, it is appropriate to apply a time lag to the habitat evolution. Based on monitoring of similar sites, low marsh generally takes 10 years to cover an area once the appropriate elevations are reached (Phyllis Faber, pers. comm., ESA PWA et al. 2011, H. T. Harvey & Associates and PWA 2005).[2]

Table 6 tabulates the total area within each habitat type for 2030 and future conditions with the application of a 10-year time lag.

TABLE 3
TIDAL DATUMS (DUMBARTON BRIDGE)

Tidal Datum	Elevation, 1983 – 2001 tidal epoch (ft NAVD88)	Elevation, adjusted to 2030 (ft NAVD88)
Highest Astronomical Tide (HAT)	9.0	9.4
Mean Higher High Water (MHHW)	7.4	7.8
Mean High Water (MHW)	6.8	7.2
Mean Sea Level (MSL)	3.5	3.9
Mean Lower Low Water (MLLW)	-1.2	-0.8
Lowest Astronomical Tide (LAT)	-3.4	-3.0

Source: NOAA Station 9414509 Dumbarton Bridge datums, 1983-2001 epoch.
Note: Added 0.4 ft to account for sea level rise between the 1983-2001 tidal epoch and construction in 2030.

[2] At the Cooley Landing/Ravenswood Preserve (ESA PWA et al. 2011), the initial marsh plain elevation was 5.5 ft (typical), or approximately 0.7 ft above the assumed colonization elevation. 60% vegetative cover was observed 10 years after breaching, sufficient for salt marsh vegetation to be the dominant cover type on the marsh plain. At the Island Ponds Pond 21, (H. T. Harvey and PWA 2005), the initial marsh plain elevation was approximately 1.1 ft above the assumed colonization elevation. Imagery (Google Earth) indicates that more than half of Pond A21 was vegetated in approximately 8 years. Of note at the Island Ponds is that the presence of gypsum would have initially slowed seedling establishment. On the other hand, the Island Ponds would have experienced faster accretion due to higher sediment concentrations. At Moseley Tract, examination of Google Earth imagery suggests that vegetation rates are consistent with those for the other site. Complicating factors at Moseley Tract are that the (unplanned) breach occurred in approximately 2003 but did not substantially enlarge until approximately 2008, and the marsh plain required some amount of time to accrete to colonization elevations.

TABLE 4
TIDAL MARSH HABITAT ELEVATIONS (APPROXIMATE)

Habitat Type	Lower Limit	Upper Limit	Elevation, adjusted to 2030 (ft NAVD88)
Upland	Above HAT+1 ft	-	Above 10.4
Transition Zone	MHHW + 1 ft	HAT + 1 ft	8.8 to 10.4
Vegetated Marsh	MSL+1.3 ft	MHHW + 1 ft	5.2 to 8.8
Mudflat	MLLW	MSL + 1.3 ft	-0.8 to 5.2
Subtidal	-	MLLW	Below -0.8

NOTE: Added 0.4 ft to account for sea level rise between the 1983-2001 tidal epoch and construction in approx. 2030.

TABLE 5
PROJECTED PONDS R1 AND R2 HABITAT AREAS, INTERMEDIATE SEA LEVEL RISE

Habitat Type	Habitat Area (acres)					
	2030	2040	2050	2060	2080	2100
Upland	1.9	1.9	1.1	0.7	0.0	0.0
Transition Zone	1.0	0.8	1.2	1.5	1.9	0.2
Vegetated Marsh	6.6	287	460	482	487	489
Mudflat	519	216	30	5.9	0.3	0.0
Subtidal	46	68	82	84	84	85
Total	**574**	**574**	**574**	**574**	**574**	**574**

SOURCE: ESA analysis.

NOTES: No time lag for vegetation establishment. Areas include approx. 1.8 acres of seabird nesting islands. Totals may not match the sum of values above due to rounding. Relatively small areas of mudflats along the edges of channels are expected but are not included in the table.

TABLE 6
PROJECTED PONDS R1 AND R2 HABITAT AREAS WITH TIME LAG FOR VEGETATION ESTABLISHMENT, INTERMEDIATE SEA LEVEL RISE

Habitat Type	Habitat Area (acres)					
	2030	2040	2050	2060	2080	2100
Upland	1.9	1.9	1.1	0.7	0.0	0.0
Transition Zone	1.0	0.8	1.2	1.5	1.9	0.2
Vegetated Marsh	0.0	6.6	287	460	486	488
Mudflat	525	497	202	28	1.2	0.8
Subtidal	46	68	82	84	84	85
Total	**574**	**574**	**574**	**574**	**574**	**574**

SOURCE: ESA analysis.

NOTES: 10-year lag for vegetation establishment. Areas include approx. 1.8 acres of seabird nesting islands. Totals may not match the sum of values above due to rounding. Relatively small areas of mudflats along the edges of channels are expected but are not included in the table.

4.2 Sensitivity Analysis

A sensitivity analysis was conducted to assess the model's sensitivity to the primary calibration parameter, suspended sediment concentration, and to a higher sea level rise scenario. Results are shown in Figure 7.

Sensitivity to suspended sediment concentration. Model results indicate that, for a point on the marsh plain starting at 4 ft (typical), this point will evolve to support vegetated marsh for all suspended sediment scenarios. For the higher suspended sediment concentration (100 mg/L) scenario, this point crosses the vegetation threshold between 2035 and 2040, or about 5 years sooner than for the base case (75 mg/L). For the lower suspended sediment concentration (50 mg/L) scenario, accretion raises this same point above the vegetation threshold between 2060 and 2070 after which accretion barely outpaces sea level rise through 2100, indicating a sensitivity to lower suspended sediment concentrations. Existing mature marshes in the vicinity—which are high in the tidal frame (about 7 ft) and already vegetated—are predicted to remain vegetated through 2100, even for the lower suspended sediment concentration scenario. However, accretion for the lower suspended sediment concentration begins to fall behind sea level rise later in the century, suggesting that Ponds R1/R2 and nearby existing marshes could convert to mudflat and subtidal habitats after 2100.

Sensitivity to higher sea level rise. While the INT Sea Level Rise Scenario is considered by OPC to be an upper bound for the most likely future conditions, ESA modeled the INT-HIGH Scenario to assess sensitivity of the model results to higher rates of sea level rise. Model results for the INT-HIGH Sea Level Rise Scenario indicate that areas in Ponds R1/R2 starting at 0 ft and 4 ft reach the marsh vegetation threshold only slightly later than in the INT Sea Level Rise Scenario, lagged by less than a decade. This suggests that evolution of tidal habitats is relatively insensitive to the higher sea level rise scenario through the end of the century. By 2100, however, all sedimentation trajectories for the INT-HIGH Scenario are lower in the tidal frame than for the INT Scenario and closer to the threshold at which marsh may convert to mudflat. Existing marshes are predicted to remain vegetated through 2100, even for the higher sea level rise scenario.

For the combined low suspended sediment concentration (50 mg/L) and INT-HIGH Sea Level Rise Scenario, model results for Ponds R1/R2 indicate that accretion would be too slow relative to sea level rise to result in widespread conversion of mudflat to tidal marsh. A typical point on the remnant marsh plain at 4 ft does not reach the vegetation colonization elevation. In the combined low suspended sediment and INT-HIGH Sea Level Rise Scenario, accretion for existing marshes begins to fall behind sea level rise later in the century. This combined scenario would have implications for marsh sustainability for San Francisco Bay as a whole, not just Ponds R1/R2.

Because organic accretion was omitted from the model, actual deposition rates after vegetation colonization would be higher than modeled. Stralberg et al. (2011) estimate a rate of 1 mm/yr for the project area. Since the base case model (75 mg/L suspended sediment concentration and Intermediate Sea Level Rise Scenario) indicates that vegetation, once established, persists through the modeled timeframe (2100), adding 1 mm/yr of organic accretion would not change the habitat outcome. Assuming vegetation establishes between 2040 and 2050, as in the base case, including organic accretion of 1 mm/yr would raise the marsh plain by approximately 0.2 ft by 2100, a small effect.

5 Blue Carbon Stock Assessment

Coastal wetland protection and restoration have come into focus as strategies for reducing greenhouse gas (GHG) emissions and their contribution to climate change. Greenhouse gas reduction strategies focused on coastal ecosystems, including salt marshes, have earned the label "blue carbon," distinguishing these more recent strategies from already-established "green" (e.g., forestry) and "gray" (e.g., industrial) carbon. Coastal ecosystems act as carbon sinks and long-term carbon reservoirs.

To better understand the effects of the SAFER Bay Project on coastal blue carbon resources, ESA quantified changes in blue carbon stocks due to project activities. We considered the SAFER levee footprint and Ponds R1/R2 restoration site and how they will change over time with sea level rise.

5.1 Stock and Sequestration Quantification Methods

Tidal marshes contribute to GHG reductions by storing carbon within the plant aboveground biomass and in the soils. Carbon stock refers to the quantity of carbon held within a specific carbon pool (or reservoir) at a given time, such as the carbon stored in marsh vegetation and soils. Carbon sequestration,[3] or removal, is the rate of change in carbon stock.

This assessment applies methods consistent with the Intergovernmental Panel on Climate Change (IPCC) guidance from the 2013 Wetlands Supplement to the 2006 accounting guidelines (IPCC 2014) to calculate greenhouse gas (GHG) emissions and removals from tidal coastal wetlands. The IPCC GHG accounting framework uses the following equation:

$$Emissions = - Sequestration = Activity\ Data * Emissions\ Factor$$

Where:

- *Emissions* are releases of GHG into the atmosphere.
- *Sequestration* is a negative emission.
- *Activity data* in this context refer to changes in land cover—such as changes in tidal habitat—over time.
- *Emissions factors* are the rates of GHG emissions and removals associated with the activity data.

In this study, the relevant *emissions factor* is for carbon dioxide (CO_2). While methane (CH_4) and nitrous oxide (N_2O) fluxes are often considered for changes in land use, salt marshes are not a meaningful source of these gases (see Section 5.1.4).

5.1.1 Carbon Stocks

IPCC (2014) identifies three carbon stocks important to calculating CO_2 removals in coastal wetlands (this also applies to other vegetated land cover types): biomass (aboveground and belowground), soil carbon, and dead organic matter. In the blue carbon context, dead organic matter is relevant to mangrove forests. When aboveground mangrove biomass dies, the decomposition of wood is slow, and much of the material is buried and

[3] The terms "sequestration" and "removal" are synonymous. "Sequestration" is used more often in the wetland carbon context, while "removals" is more common when considering a broader range of activities.

accumulates as soil organic matter. Dead organic matter is not significant for coastal salt marshes and has not been included (ESA 2023).

To calculate CO_2 removals, each land cover type is assigned a biomass carbon area density and soil carbon sequestration rate factor to each land cover type. And when applied over habitat area, carbon stock changes can be tracked through time as sea level rises and wetlands evolve. For example, when land is covered with vegetation, there is a carbon stock in the plant biomass and soil. The soil carbon increases according to the soil sequestration rate of the habitat due to the incorporation of organic matter back into the soil. When a habitat converts to another habitat (e.g., from mudflat to salt marsh), aboveground biomass changes (may increase or decrease) due to the different type of vegetation. Soil sequestration continues, but at the rate of the new habitat type. With restoration, when mudflats convert to marsh, aboveground biomass develops, and soil sequestration begins.

5.1.2 Aboveground and Belowground Biomass

When vegetation is established, carbon in the form of CO_2 is sequestered from the atmosphere to build aboveground biomass. The size of the carbon stock depends on the vegetation type and density. If the vegetation type changes, the amount of aboveground biomass will change as well. Furthermore, roots contribute to belowground biomass in varying degrees (e.g., grasses have low belowground biomass, while marsh has high belowground biomass). Biomass carbon factors used are listed in Table 7.

5.1.3 Soil Carbon Sequestration

Carbon also accumulates in the soil, especially in wetlands. As more soil layers are deposited, the soil carbon is buried and sequestered. Soil carbon sequestration rates used are listed in Table 7.

5.1.4 Methane and Nitrous Oxide Emissions

Methane (CH_4) emissions are produced when microorganisms in wet, poorly aerated soils, such as in freshwater marshes, decompose organic matter. High salinities reduce methane production and coastal wetlands with salinities greater than 18 ppt are considered to have negligible methane emissions (Beers and Crooks 2022).

Nitrous oxide (N_2O), a potent GHG, is emitted as a by-product of the conversion of ammonia (contained in fish urea) to nitrate. In areas with aquaculture, N_2O emissions should be included in the GHG accounting. In the case of SAFER, aquaculture land use does not apply, so nitrous oxide emissions are not included (ESA 2023).

TABLE 7
BIOMASS AND REDUCTION FACTORS

Habitat Type	Total Biomass Carbon (Mg C/ha)	Reference/Assumptions	Soil Carbon Sequestration Rate (g C/m^2/yr)	Reference/Assumptions
Upland and Transition Zone	5.5	IPCC 2006 V4 Chap 6 - p6.29 & Table 6.4 (for cold temperate - wet regions)	9.0	Kroodsma and Field (2006) value for non-rice annual cropland
Vegetated Marsh	15.9	Beers and Crooks (2022) (for saline estuarine emergent wetlands)	76.6	Beers and Crooks (2022) (for saline estuarine emergent wetlands)
Mudflat	0.0	Assumed no vegetation because habitat type is below the vegetation colonization elevation threshold	0.0	Assumed no vegetation because habitat type is below the vegetation colonization elevation threshold
Subtidal	0.0	Assumed no vegetation because habitat type is below the vegetation colonization elevation threshold	0.0	Assumed no vegetation because habitat type is below the vegetation colonization elevation threshold

5.2 Results and Discussion

5.2.1 Ponds R1/R2

Changes in habitat areas and associated carbon sequestration for restoration of Ponds R1/R2 are shown in Table 8 and Table 9, respectively. Restoration results in cumulative 39,000 tonnes CO_2 equivalents sequestered by 2100.

TABLE 8
CHANGE IN PROJECTED PONDS R1 AND R2 HABITAT AREAS (COMBINED) FROM BASE CASE (WITHOUT PROJECT)

Habitat Type	2030, immediately pre-breach (acres)	Change from Base Case (acres)					
		2030, immediately post breach	2040	2050	2060	2080	2100
Upland and Transition Zone	2.9	0.0	-0.2	-0.6	-0.7	-0.9	-2.7
Vegetated Marsh	0.0	0.0	+6.6	+287	+460	+486	+488
Mudflat	0.0	+525	+497	+202	+28	+1.2	+0.8
Subtidal	571	-525	-503	-489	-487	-487	-487

NOTE: Intermediate Sea Level Rise Scenario. Time lag for vegetation establishment (from Table 6). Total net change for all habitat types for each year shown may not sum to zero due to rounding.

ASSUMPTIONS: Assume change in upland and transition zone immediately after breaching is negligible (set to zero).

TABLE 9
PROJECTED PONDS R1 AND R2 BLUE CARBON STOCK CHANGES FROM BASE CASE (WITHOUT PROJECT)

Habitat Type	a. Net Biomass (tonnes CO2 equivalents)					
	2030	2040	2050	2060	2080	2100
Upland and Transition Zone	0.0	-1.3	-5.1	-5.8	-7.6	-22
Vegetated Marsh	0.0	157	6,795	10,879	11,504	11,550
Mudflat	0.0	0.0	0.0	0.0	0.0	0.0
Subtidal	0.0	0.0	0.0	0.0	0.0	0.0
Total	**0.0**	**156**	**6,790**	**10,874**	**11,497**	**11,528**

Habitat Type	b. Net cumulative soil carbon sequestered (= GHG Sequestration) (tonnes CO2 equivalents)					
	2030	2040	2050	2060	2080	2100
Upland and Transition Zone	0.0	-0.1	-0.6	-1.5	-3.7	-8.5
Vegetated Marsh	0.0	38	1,708	5,956	16,714	27,794
Mudflat	0.0	0.0	0.0	0.0	0.0	0.0
Subtidal	0.0	0.0	0.0	0.0	0.0	0.0
Total	**0.0**	**38**	**1,708**	**5,954**	**16,710**	**27,786**

Habitat Type	c. Net CO_2 equivalents sequestered, Biomass and Cumulative Soil Carbon (tonnes CO2 equivalents)					
	2030	2040	2050	2060	2080	2100
Upland and Transition Zone	0.0	-1.4	-5.8	-7.3	-11	-31
Vegetated Marsh	0.0	195	8,503	16,835	28,218	39,344
Mudflat	0.0	0.0	0.0	0.0	0.0	0.0
Subtidal	0.0	0.0	0.0	0.0	0.0	0.0
Total	**0.0**	**194**	**8,498**	**16,828**	**28,207**	**39,314**

NOTES: All values are net change from the base case (without Project). 2030 values represent conditions immediately after Project construction and breaching. Upland/transition zone conversion to tidal habitat with restoration results in negative biomass and sequestration compared to the base case. Assume no soil carbon sequestered in 2030 because insufficient time for vegetation to establish. Use a ten-year lag for vegetation establishment. Totals may not match the sum of values due to rounding.

Entries in Table 9c are the sum of corresponding entries in Table 9a and Table 9b.

5.2.2 Existing Marshes

Removing portions of existing marshes to construct the SAFER flood protection levee results in cumulative 2,400 tonnes CO_2 equivalents released to the atmosphere by 2100. Table 10 summarizes carbon emission results.

Comparing Table 9 and Table 10, carbon sequestration through Ponds R1 and R2 restoration greatly offsets carbon emissions from levee construction, resulting in net cumulative 36,600 tonnes CO_2 equivalents sequestered by 2100 through the Project.

TABLE 10
PROJECTED EXISTING MARSH CARBON STOCK CHANGES FROM BASE CASE (WITHOUT PROJECT)

Habitat Type	a. Net Biomass (tonnes CO2 equivalents)					
	2030	**2040**	**2050**	**2060**	**2080**	**2100**
Vegetated Marsh - Directly Impacted	-362	-362	-362	-362	-362	-362
Vegetated Marsh - Indirectly Impacted	-194	-194	-194	-194	-194	-194
Total	**-556**	**-556**	**-556**	**-556**	**-556**	**-556**

Habitat Type	b. Net cumulative soil carbon sequestered (= GHG Sequestration) (tonnes CO2 equivalents)					
	2030	**2040**	**2050**	**2060**	**2080**	**2100**
Vegetated Marsh - Directly Impacted	0	-174	-348	-522	-871	-1,219
Vegetated Marsh - Indirectly Impacted	0	-93	-186	-280	-466	-652
Total	**0**	**-267**	**-535**	**-802**	**-1,336**	**-1,871**

Habitat Type	c. Net CO_2 equivalents sequestered, Biomass and Cumulative Soil Carbon (tonnes CO2 equivalents)					
	2030	**2040**	**2050**	**2060**	**2080**	**2100**
Vegetated Marsh - Directly Impacted	-362	-536	-710	-885	-1,233	-1,581
Vegetated Marsh - Indirectly Impacted	-194	-287	-380	-473	-660	-846
Total	**-556**	**-823**	**-1,091**	**-1,358**	**-1,893**	**-2,427**

NOTE: All values are net change from the base case (without Project).

Directly impacted refers to habitat replaced by the SAFER levee, while indirectly impacted refers to habitats affected by ancillary levee construction effects (e.g., isolation from tides).

2030 values represent conditions immediately after Project construction. Assume no soil carbon sequestered in 2030 because insufficient time for sequestration to occur immediately after construction.

Assume all stored carbon in affected habitats is released to the atmosphere.

Assume no net change in upland/transition zone compared to base case and thus no net change in carbon stock. Mudflat and subtidal habitats are excluded as they do not support vegetation. Managed wetlands that are inboard of the current and proposed levee are not included in the carbon accounting.

Totals may not match the sum of values above due to rounding.

Entries in Table 10c are the sum of corresponding entries Table 10a and Table 10b.

6 Limitations and Uncertainties

Overall, this analysis suggests that if Ponds R1/R2 are restored to full tidal inundation around 2030, substantial marsh establishment is likely after one to two decades and approximately 480 acres of tidal marsh vegetation is likely to establish within three decades. This assessment is supported by three factors: First, in the last two decades, tidal restorations at multiple nearby reference sites have demonstrated the capacity for sediment accretion and extensive vegetation establishment when starting from mudflats. Second, the primary calibration parameter, suspended sediment concentration, was chosen to replicate observed bed elevation changes at several reference sites and marsh establishment still occurs even when the suspended sediment concentration is only 50 mg/L, or 66% of the calibrated value. Finally, the Intermediate Sea Level Rise Scenario used in the model provides, according to OPC (2024), "a reasonable upper bound for the most likely range of sea level rise by 2100." If the actual sea level rise is lower, less bed accretion will be needed for marsh vegetation to establish.

While this assessment indicates that extensive marsh establishment is likely with full tidal restoration, the analysis presented herein does have limitations and uncertainties which should be considered when interpreting these results.

1. This analysis does not model sediment transport dynamics in detail. MARSH98 models a constant "effective" sediment supply based on calibration with other sites and simulates a constant, uniformly distributed deposition rate on the mudflat/marsh surface. In reality, marsh sediment supply is highly variable and sediment transport within the site varies based on hydrodynamics and proximity to sediment supply. While erosion of sediments due to wind-waves and tidal currents are not simulated directly, the model is calibrated to account for the effect of erosion to the extent that these processes influenced net accretion rates at the reference sites. Any additional effects of erosion not captured in the calibration are not expected to significantly affect the long-term distribution of marsh vegetation.

2. This analysis does not model vertically varying sediment consolidation within the bed. The MARSH98 model represents the soil column as having uniform composition and constant density. As such, the bed bulk density should be viewed as an average value representative of the upper portion of the soil column. If compaction results in higher bed bulk density and corresponding lower bed elevations, marsh establishment may take slightly longer but is still anticipated to occur.

3. This analysis assumes that conditions and processes which influenced the calibration sites' accretion rates will persist into the future. The calibration data periods vary by site but generally cover the period from 2000 to 2015.

   Historic records for San Francisco Bay indicate that conditions can change rapidly over relatively short time scales due to anthropogenic activities in the Bay, upland watersheds, and climate factors. Even over the time period shown in Figure 6, there appear to be inter-annual trends in suspended sediment concentration. Over longer time frames, studies of historic suspended sediment concentrations in San Francisco Bay indicate that the estuary experienced a period of very high sediment yield from the Delta and local watersheds beginning during the Gold Rush (mid-1800s) and continuing through approximately the 1930s as sediments mobilized by hydraulic mining in the Sierras and coast ranges made their way into to the Bay. This pulse is believed to have largely worked its way through the Bay and the regional estuarine sediment supply has been declining since the late 1990s (Schoellhamer 2011). Although a

detailed assessment of historic and future trends in suspended sediment that could be available to the SAFER study area is beyond the scope of this study, recent nearby restoration sites show continuing accretion, even after the 1990s suspended sediment decline, and the sensitivity analysis for suspended sediment concentration indicates that even 66% of the calibrated suspended sediment would still lead to marsh formation in Ponds R1/R2 and maintain sustainable marshes through 2100.

4. There is broad consensus among the scientific community that the Earth's climate will experience changes over the coming century due to the accumulation of greenhouse gases in the atmosphere. Most significant for marsh establishment, sea level rise means that bed elevations will need to be ever higher to catch up to and pace the tidal thresholds for marsh vegetation establishment. As noted above, the Intermediate Sea Level Rise Scenario used in the model (3.1 ft by 2100) provides a reasonable upper bound for the most likely range of sea level rise by 2100 (OPC 2024). If the actual sea level rise is lower, marsh vegetation would establish more quickly and sustain higher in the tidal frame. Conversely, if sea level rise is higher, vegetation would take longer to establish and be lower in the tidal frame by 2100. Sensitivity modeling for a higher sea level rise scenario (4.8 ft by 2100) suggests that for a suspended sediment concentration of 75 mg/L, marsh will establish and sustain in Ponds R1/R2 through 2100.

   The rate of sea level rise increases with time, so if tidal restoration occurs several decades past the assumed 2030 start date, the bed will be subject to faster rates of rise, which could compromise marsh vegetation establishment.

   Climate changes could also affect other processes related to marsh growth. For example, changing precipitation patterns may alter the supply of sediment to the Bay. The analysis of the potential impacts of climate change and related effects on bed accretion and habitat evolution is beyond the scope of this analysis, but it must be acknowledged that a changing climate will likely influence the growth and accretion of tidal marshes over the coming century and that such effects are not reflected in this analysis.

5. Blue carbon is extremely variable, and the carbon assessment presented is a high-level estimate. It is intended to be illustrative of the potential for GHG reduction and should be used for planning purposes only.

To address the above limitations and uncertainties with respect to habitat evolution, the SAFER Bay Project could use an adaptive management approach. This would consist of monitoring marsh conditions and preparing for interventions such as thin layer sediment placement if sea level rise and/or sediment supply results in slow marsh formation or marsh die-off.

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8 Figures

Figure 1. Project and Reference Site Locations

Figure 2. Cooley Landing Reference Site Aerial Imagery

Figure 3. Pond A21 Reference Site Aerial Imagery

Figure 4. Pond A6 Reference Site Aerial Imagery

Figure 5. MARSH98 Calibration Results

Figure 6. Suspended Sediment Concentration (SSC) at Dumbarton Bridge

Figure 7. Pond R1/R2 Marsh Plain Accretion Trajectories for Various Suspended Sediment Concentrations (SSC) and Sea Level Rise Scenarios

Figure 8. Pond R1/R2 Projected Habitat Extents

Figure 9. Pond R1/R2 Projected Habitat Distributions

SOURCES: Basemap (County of Santa Clara 2022; Maxar 2022)

D211919.00 SAFER Bay Project

Figure 1
Project and Reference Site Locations

ESA

SOURCE: Google Earth (2017)
NOTE: Cooley Landing site first breached in 2000, and an additional breach was added in 2005.

SAFER Bay Project. D201100919.04

Figure 2

Cooley Landing Reference Site Aerial Imagery

SOURCE: Google Earth (2017)
NOTE: Pond A21 site breached in 2006.

SAFER Bay Project. D201100919.04

Figure 3

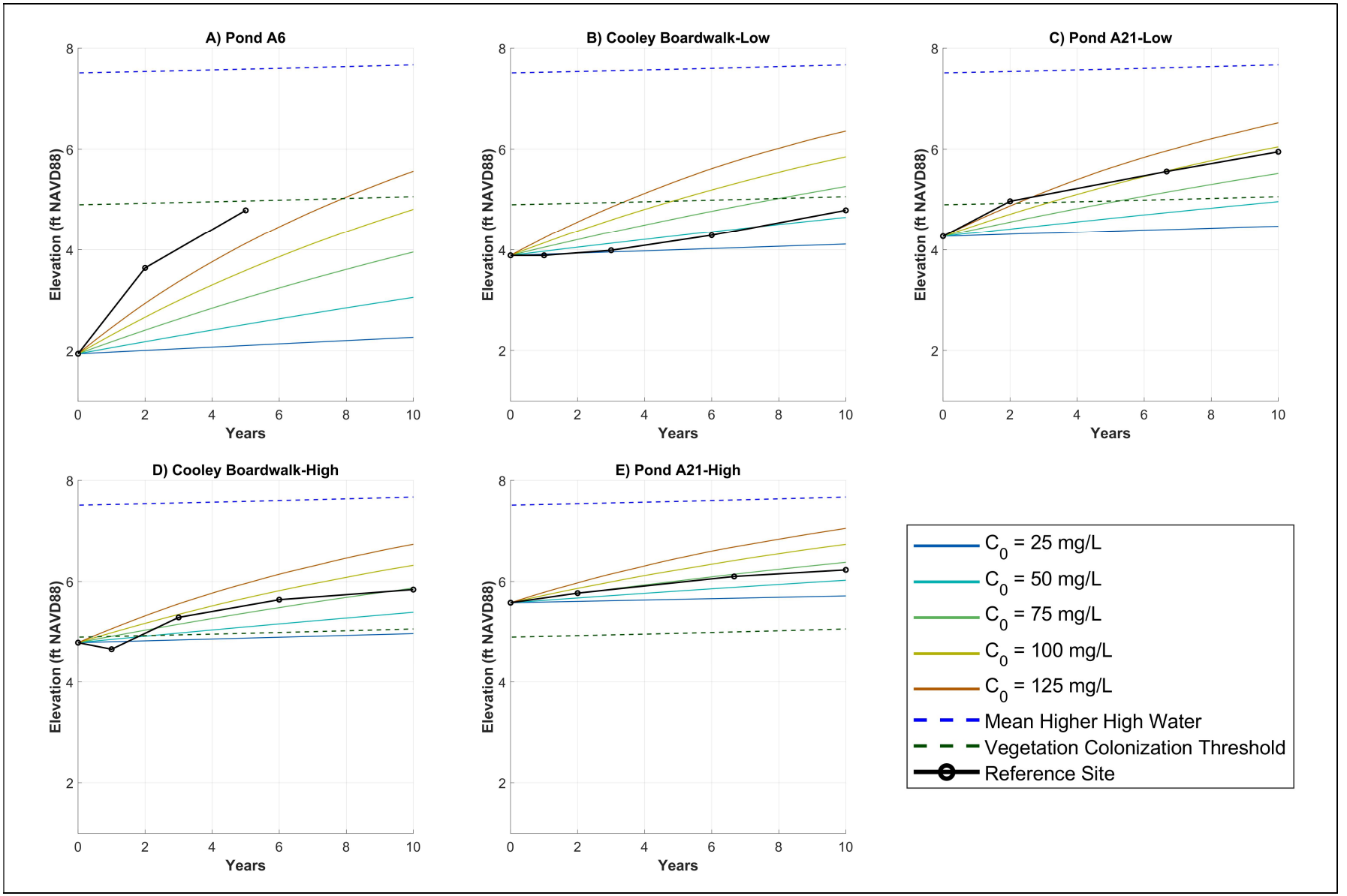
Pond A21 Reference Site Aerial Imagery

SOURCE: Google Earth (2017)
NOTE: Pond A6 site breached in 2010.

SAFER Bay Project. D201100919.04

Figure 4

Pond A6 Reference Site Aerial Imagery



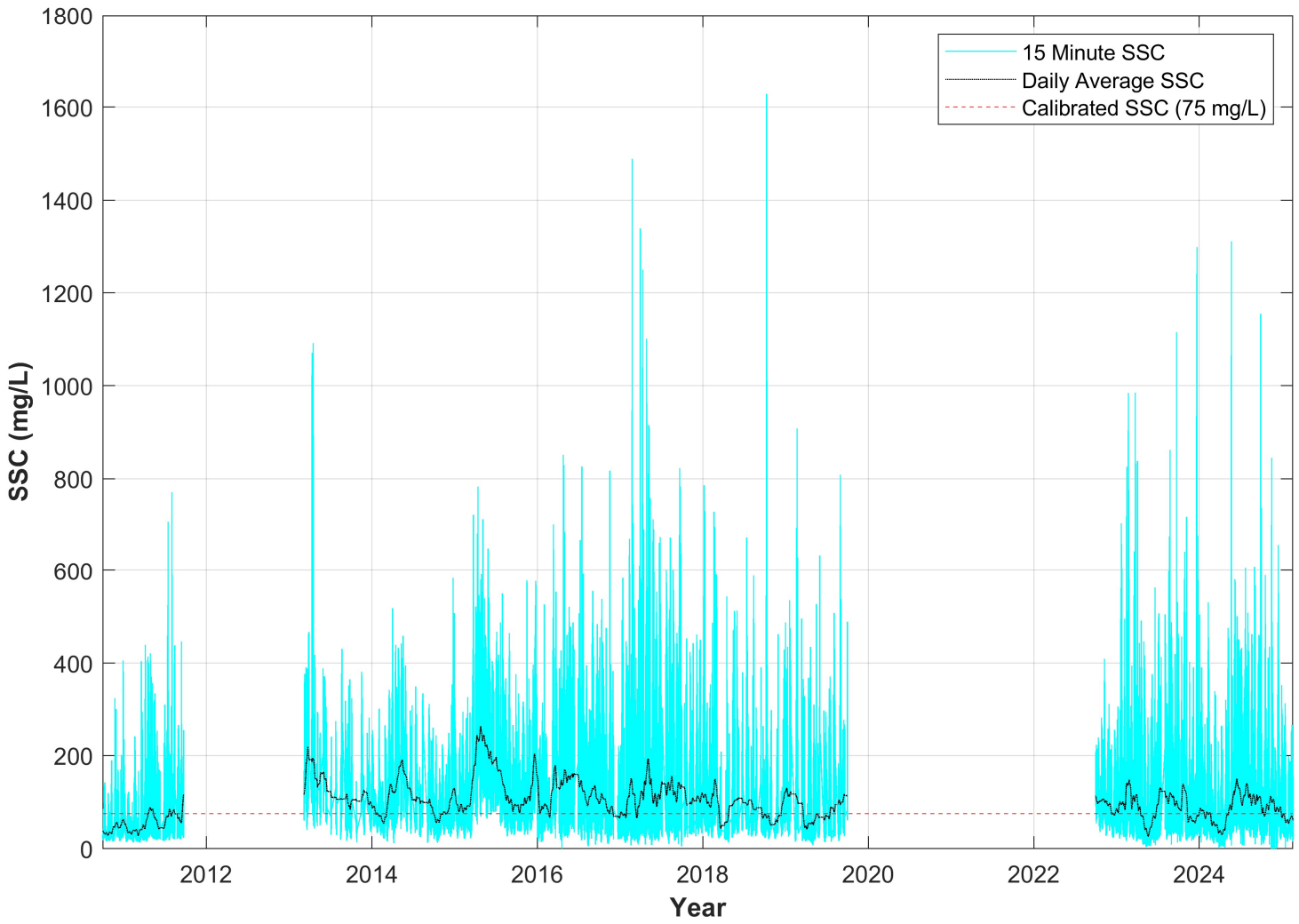
SOURCES: ESA analysis.

NOTE: NAVD88 = North American Vertical Datum of 1988

SAFER Bay Project. D201100919.04

Figure 5

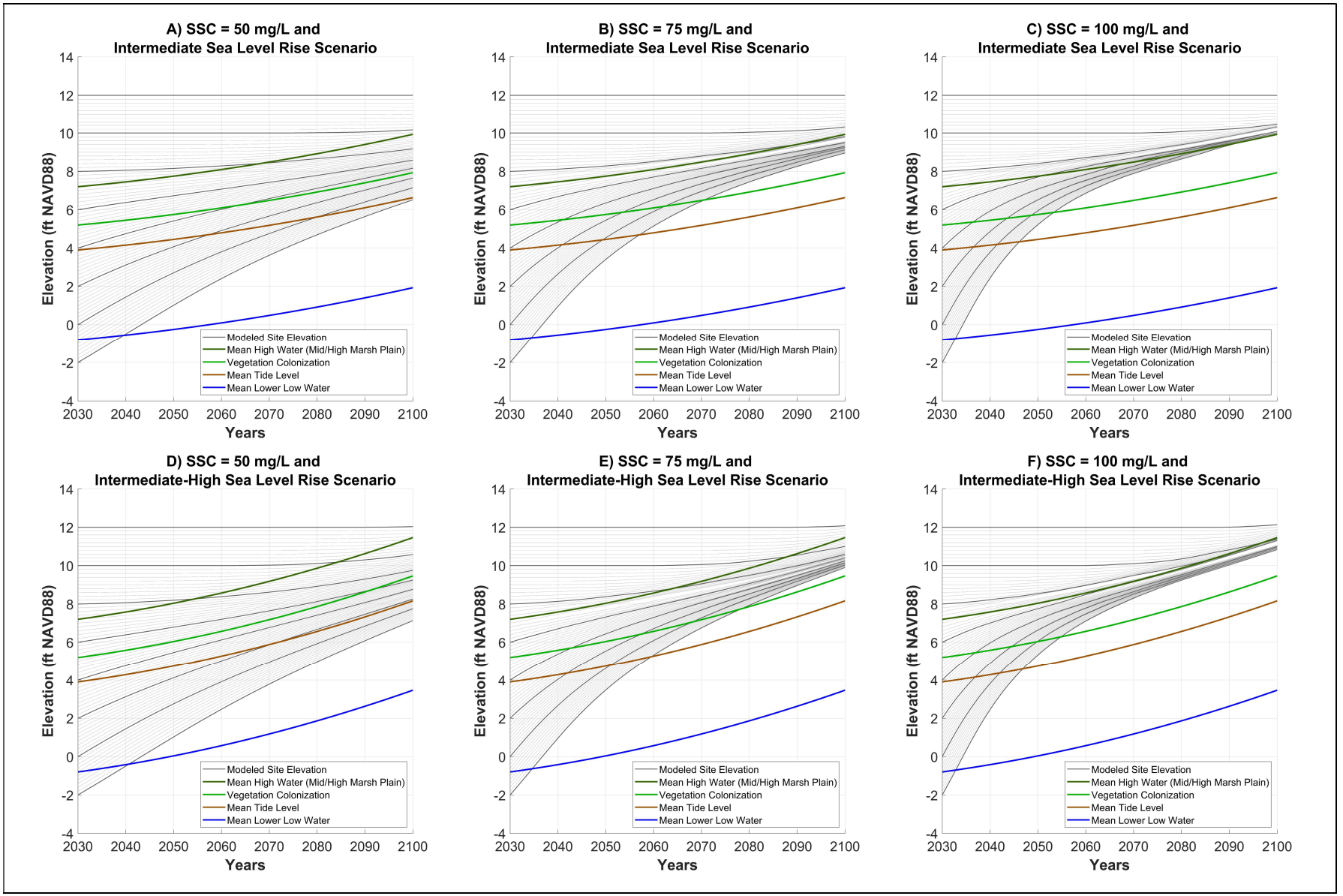
MARSH98 Calibration Results



SOURCE: United States Geologic Survey (USGS) Dumbarton Bridge, Gage #373015122071000
NOTE: Data was unavailable from September 2011 to March 2013 and October 2019 to September 2022.

SAFER Bay Project. D201100919.04

Figure 6
Suspended Sediment Concentration (SSC) at Dumbarton Bridge

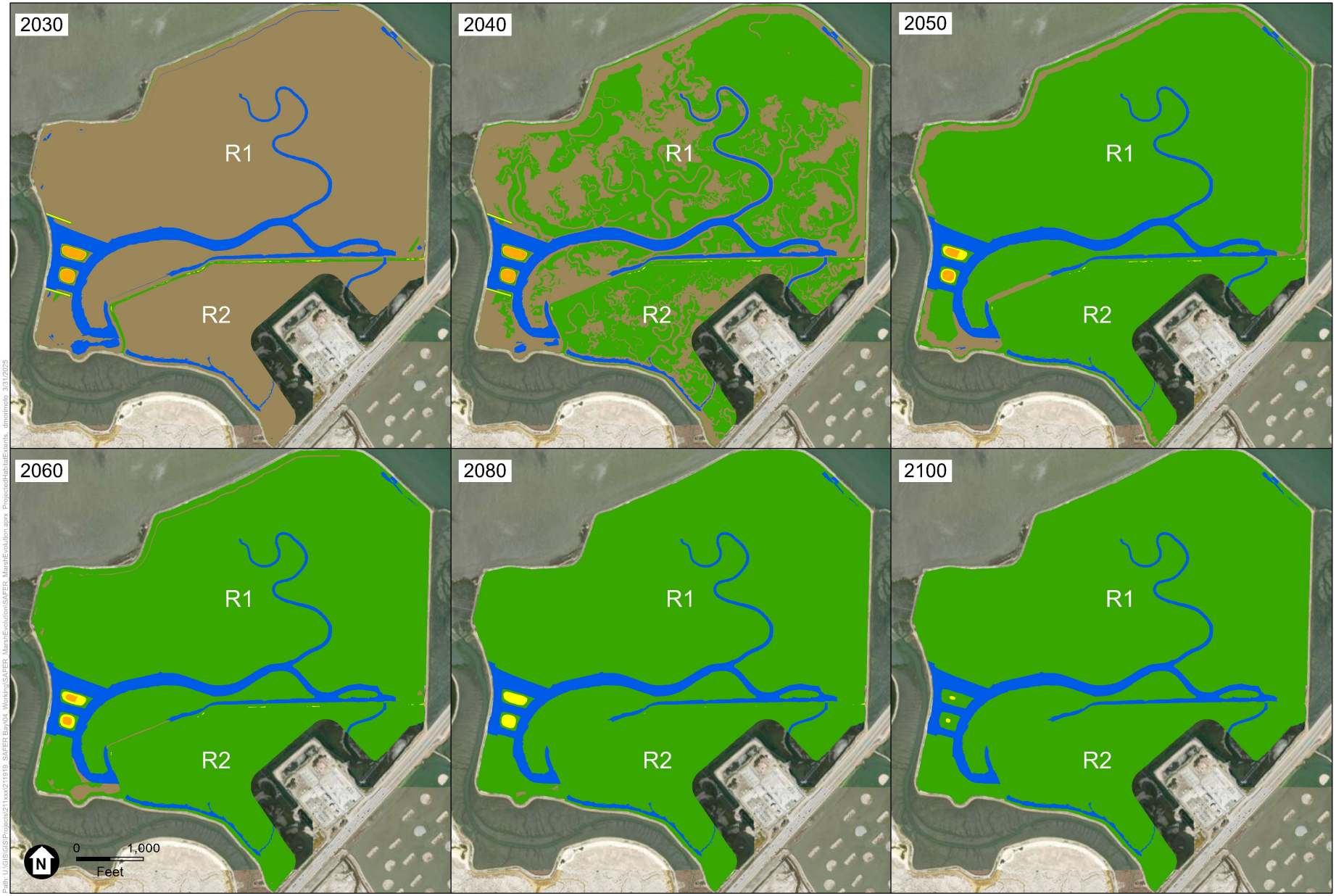


SOURCES: ESA MARSH98 analysis. Sea level rise scenarios from the Ocean Protection Council (2024).
NOTE: Assume Pond R1/R2 is restored in 2030 (approx.) The remnant marsh plain begins at a typical elevation of 4 ft NAVD88 (North American Vertical Datum of 1988).

SAFER Bay Project. D201100919.04

Figure 7

Pond R1/R2 Marsh Plain Accretion Trajectories for Various Suspended Sediment Concentrations (SSC) and Sea Level Rise Scenarios



SOURCES: ESA analysis, Basemap (County of Santa Clara, 2022; Maxar, 2022)
NOTE: Assumed Pond R1/R2 restored in 2030 (approx.).

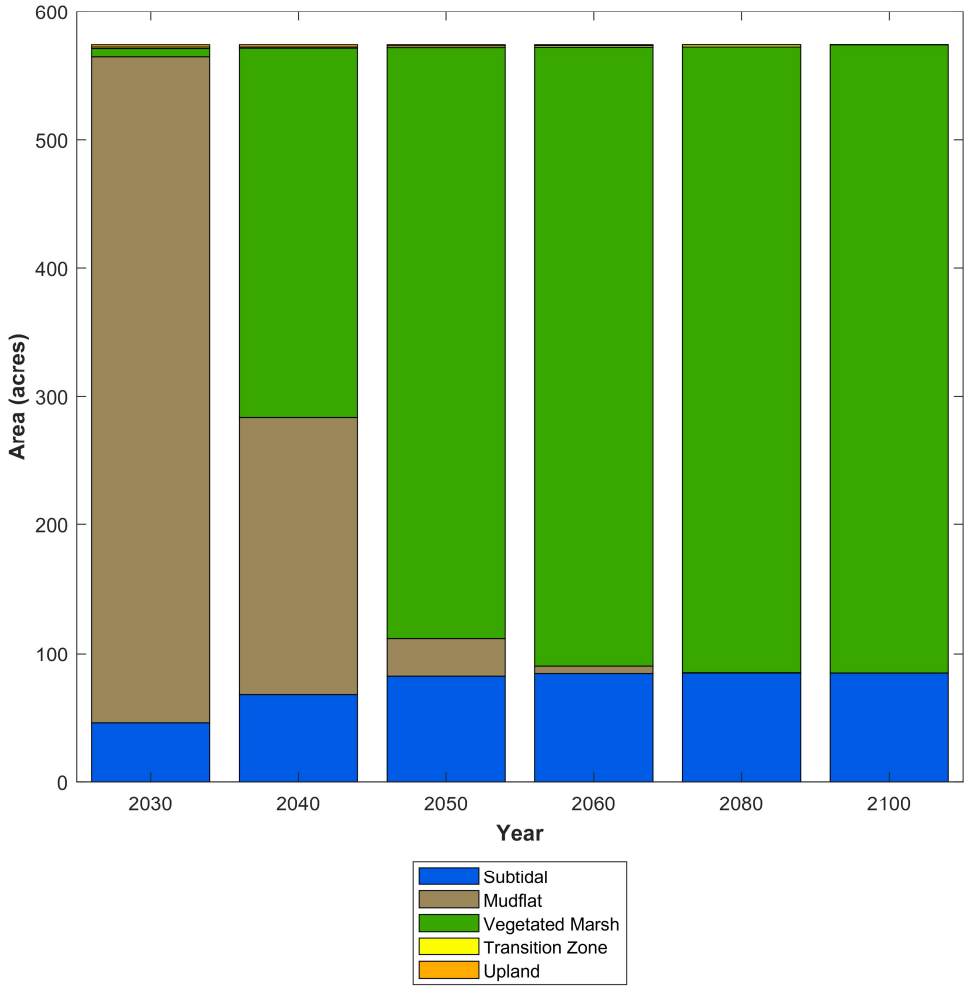
Legend

- Subtidal
- Mudflat
- Vegetated Marsh
- Transition Zone
- Upland

D211919.00 SAFER Bay Project

Figure 8
Pond R1/R2 Projected Habitat Extents

ESA



SOURCE: ESA analysis
NOTES:
1. Assumed Pond R1/R2 restored in 2030 (approx.).
2. Upland and transition zone habitat areas are too small to be visible at this plot scale.
See Table 5 for values.

SAFER Bay Project. D201100919.04

Figure 9

Pond R1/R2 Projected Habitat Distributions