

Appendix C

Biological Resources Report

Ravenswood/Four Corners Specific Plan Update SEIR



H. T. HARVEY & ASSOCIATES

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**Ravenswood Business District/4 Corners Transit-Oriented
Development Specific Plan Update
Biological Resources Report**

Project #4656-01

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December 14, 2023

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Section 1. Introduction

The City of East Palo Alto's Ravenswood Business District /4 Corners Transit-Oriented Development (TOD) Specific Plan, approved in 2013, serves as a guide for development and redevelopment in the Specific Plan area and provides a policy and regulatory framework by which development projects and public improvements are reviewed. The City is proposing an update to the Specific Plan to increase the total amount of development allowed within the Specific Plan area by increasing the maximum square footages for office, research and development/life science, light industrial, civic/community, tenant amenity, and the total number of residential units allowed to be developed within the Specific Plan area.

H. T. Harvey & Associates has prepared this biological resources report to facilitate an update to the Biological Resources chapter of the 2012 Specific Plan Environmental Impact Report (2012 EIR) (Planning Center DC&E 2012). This report describes the existing biological resources present in the approximately 207-acre (ac) Specific Plan area located in the northeastern area of East Palo Alto, California in San Mateo County (Figure 1).

Included in this report are: 1) an updated description of the Specific Plan area's existing biological conditions and resources (including existing habitats, any potentially jurisdictional or sensitive habitats, and any other biological resources that might be of concern); 2) an updated discussion of the potential for occurrence of special-status plants and animals within the Specific Plan area and surrounding vicinity; 3) a description of the regulatory setting (laws or ordinances that might apply to the effects of Specific Plan activities on biological resources); 4) a description of potential impacts, including our opinions regarding whether those impacts should be considered significant under the California Environmental Quality Act (CEQA); and 5) a description of any mitigation measures that would be necessary to reduce impacts to less-than-significant levels under CEQA.

1.1 Project Description

The approximately 207-ac Specific Plan area is located in the northeastern portion of East Palo Alto, California. The Plan area is generally bounded by the City limits/Union Pacific Railroad (UPRR) tracks to the north, the western edge of the UPRR easement along the back of Illinois Street to the west, Weeks Street and Runnymede Street to the south, and the Ravenswood Open Space Preserve (OSP) and Palo Alto Baylands Nature Preserve to the east (Figure 2). Existing development within the Specific Plan area includes single-family and multi-family residential, retail, medical office, light and general industrial, and civic/institutional land uses. The Specific Plan area includes approximately 35 ac of park, trails, and open space area and 16 ac of restored wetland areas at the Ravenswood OSP.



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Figure 1. Vicinity Map

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Figure 2. Specific Plan Area Map

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University Village, a single-family neighborhood located immediately east of University Avenue, and Cooley Landing, which is located immediately to the east at the end of Bay Road, were formerly located within the Specific Plan area; however, they are not a part of the updated Specific Plan (the updated Specific Plan area is therefore a smaller subset of the original 2013 Ravenswood Specific Plan area which was 350 ac in size). No land use changes are proposed for the University Village neighborhood. However, a new roadway (i.e., the Loop Road), which would extend northward from the current terminus of Demeter Street to connect with University Avenue, has been proposed in the updated Specific Plan. This new roadway would turn to the west and connect with University Avenue near the East Palo Alto City limits. The Loop Road is intended to provide a direct route between the Plan Area and University Avenue. It is expected to cause some of the existing traffic at the University/Bay intersection to instead use the Loop Road, thereby reducing the traffic at several study intersections on Bay Road and University Avenue. A shared bike/pedestrian path would be provided adjacent to the Loop Road, providing easy walking access to University Avenue and the trails along the bayfront, which would provide Ravenswood area residents and employees with opportunities for recreation. There are two configurations of the Loop Road under consideration: one with minimal or no vehicle lanes, and one with an expanded two-lane “Loop Road” inserted. However, while the Loop Road has transportation benefits, the feasibility of the Loop Road is uncertain at this time due to potential environmental constraints (which are described in this report) and requires further engineering and environmental analysis.

The City adopted the existing Ravenswood Specific Plan in 2013 (2013 Specific Plan). This plan provides a policy and regulatory framework for reviewing development projects and public improvements in the Specific Plan area. The 2013 Specific Plan allows for development of up to 1,127,850 square feet (ft) of office uses, 351,820 square ft of industrial or research and development (R&D) uses, 112,400 square ft of retail uses, 61,000 square ft of civic/community uses, and 835 housing units (comprised of 816 multifamily and 19 single-family units). The proposed Specific Plan update would increase the total amount of development allowed within the Specific Plan area by increasing the maximum square footages for office, R&D/life science, light industrial, civic/community, and tenant amenity, and the total number of residential units allowed under the Specific Plan.

The updated Specific Plan Environmental Impact Report (SEIR) would evaluate two development scenarios:

- Scenario #1 would consist of 2.82 million square ft of office and R&D, and 1,350 residential units.
- Scenario #2 would consist of 3.35 million square ft of office and R&D, and 1,600 residential units.

Compared to the 2013 Specific Plan, the proposed Specific Plan update would result in increasing the allowable intensity and height for proposed land uses. Under both buildout scenarios, all proposed increases in non-residential development square footage would occur on parcels within the Specific Plan area that currently allow such non-residential land uses. In contrast, the proposed Specific Plan update would allow for residential uses in more zones/parcels than what is allowed under the 2013 Specific Plan.

The proposed Specific Plan update also includes amendments to the East Palo Alto General Plan and Zoning Ordinance, which would amend existing land use designations in the Specific Plan area and update existing or establish new development standards to replace current zoning provisions applicable to the Specific Plan area.

Buildout of the Specific Plan update is projected to result in 4,519 residents and 9,915 jobs for Buildout Scenario 1, and 5,350 residents and 11,610 jobs for Buildout Scenario 2. In comparison, the 2013 Specific Plan was expected to generate 2,793 residents and 4,851 jobs.

Maximum Building Heights

The Specific Plan update includes maximum building heights allowed for future developments in the Plan area. The maximum building heights range from approximately 30 ft to 120 ft above the ground surface.

Open Space Areas

The Specific Plan defines open space as publicly accessible open spaces, parks, and natural areas which serve the community by providing public access. Specific Plan update adds 31 ac of public parks and recreational facilities/amenities. The additional 31 ac of parks and recreational facilities would be improvements to existing facilities. The existing 16 ac of preserved/restored wetlands would remain in the Specific Plan area.

Street Network and Loop Road

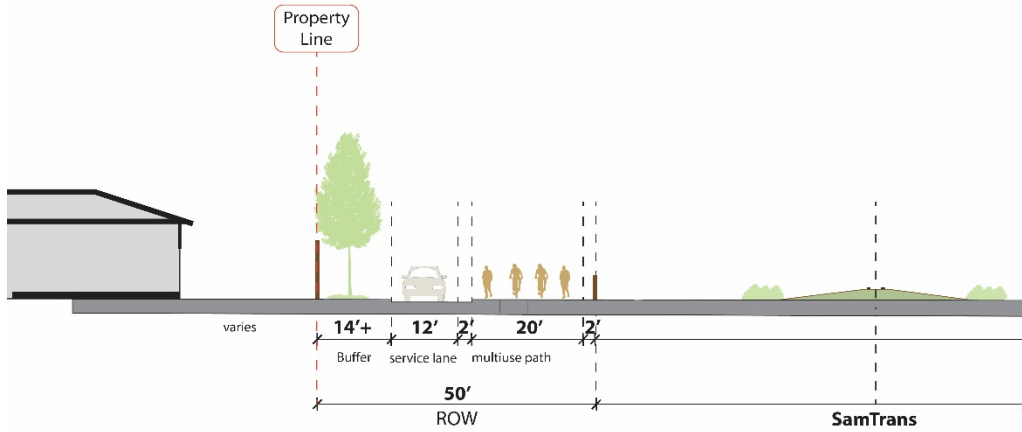
The proposed street network for the Specific Plan area would consist of existing streets (public and private) and new streets for vehicles and/or people who would walk or bike in the Specific Plan area. For both project scenarios, a Loop Road (as described above), would be located along the perimeter of the northern portion of University Village (immediately to the west of the Specific Plan area) and extend from the existing terminus of Demeter Street to connect with University Avenue. The new loop road would turn to the west and connect with University Avenue near the East Palo Alto City limits. The Loop Road is intended to provide a direct route between the Specific Plan Area and University Avenue. Detailed plans of the future loop road are not available at this time; therefore, the updated SEIR will evaluate the Loop Road at a program-level. Supplemental environmental review will be required at the time detailed plans are available. Nonetheless, this report provides a preliminary analysis on potential environmental impacts from the construction of the Loop Road. Preliminary illustrated configurations of the Loop Road are shown below in Figure 3.

Future Levee

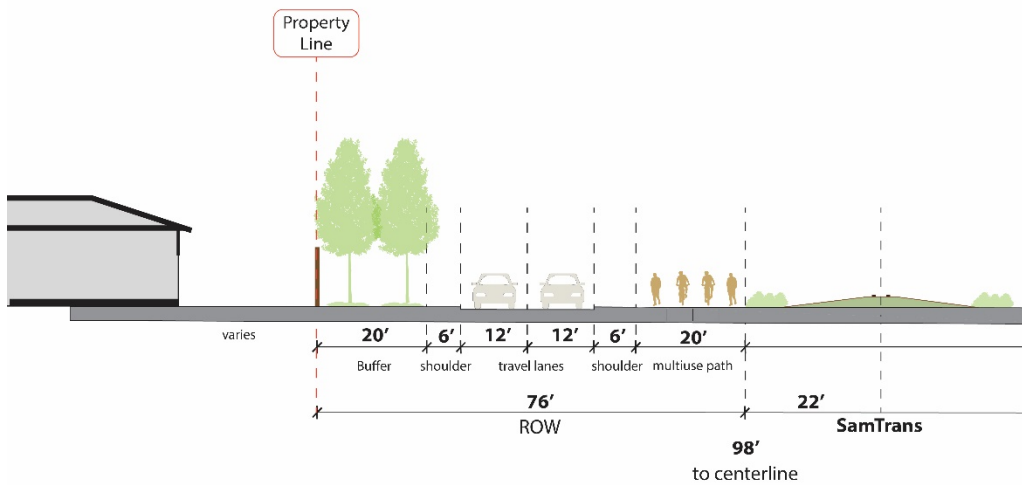
A future flood control levee may be constructed along the eastern edge of the Specific Plan area, adjacent to the Ravenswood OSP. The future levee would be constructed by San Francisquito Creek Joint Powers Authority (SFCJPA). Detailed plans are not available for the future levee at this time, and this report does not address potential environmental impacts from its construction. Rather, a separate environmental review process will be completed by SFCJPA to evaluate the environmental impacts of the future levee.

Figure 3. Preliminary Configurations of the Proposed Loop Road

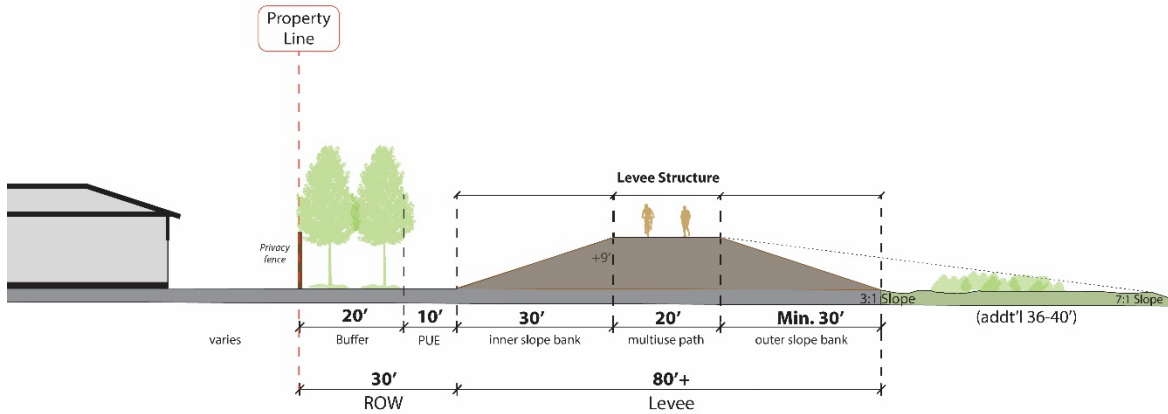
Northern Perimeter, no Loop Road (no Levee)



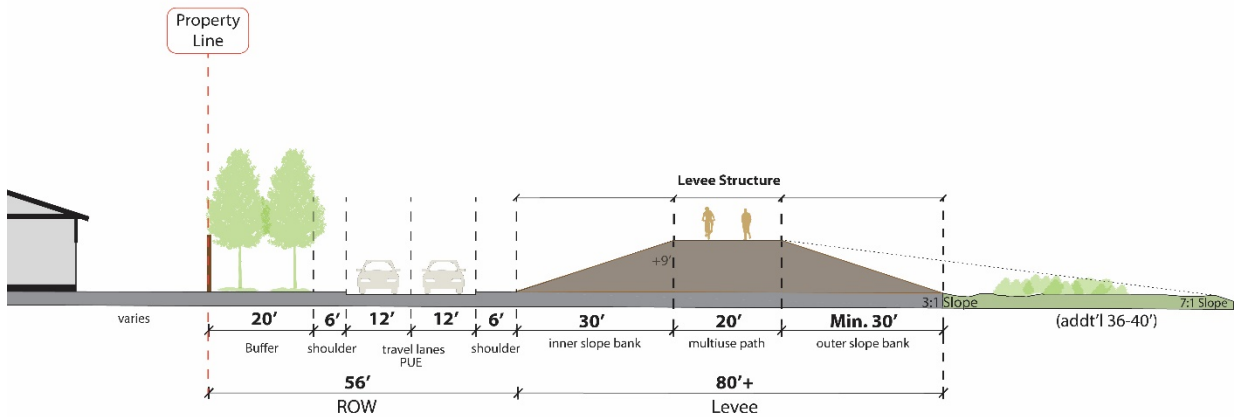
Northern Perimeter, with Loop Road (no Levee)



Eastern Perimeter, no Loop Road, with Levee



Eastern Perimeter, with Loop Road and Levee



Section 2. Methods

2.1 Background Review

Prior to conducting field work, H. T. Harvey & Associates ecologists reviewed the 2012 EIR, the Notice of Preparation of an SEIR provided by David J. Powers & Associates on May 10, 2022, and a joint scoping letter addressed to the City of East Palo Alto from the Loma Prieta Chapter of the Sierra Club, the Citizens Committee to Complete the Refuge, Green Foothills, and Sequoia Audubon Society (May 16, 2022). In addition, maps and images of the Specific Plan area were obtained from the National Wetlands Inventory (2022), Natural Resources Conservation Service (NRCS) soil survey for the Specific Plan area (2022), historical aerial photographs provided by UC Santa Barbara (UCSB 2022), and current and historical aeriels available on Google Earth Pro software (Google LLC 2022). The California Natural Diversity Database (CNDDB 2022) was also queried for special-status plants, animals, and natural communities of special concern that occur within a 5-mile (mi) radius surrounding the Specific Plan area. We also perused records of birds reported in nearby areas on eBird (Cornell Lab of Ornithology 2022).

In addition, for plants, we reviewed all species on current California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) 1A, 1B, 2A, 2B, 3 and 4 lists occurring in the project region, which is defined as the *Palo Alto* and the *Mountain View, California* USGS 7.5-minute quadrangles and surrounding ten quadrangles (*San Mateo, Redwood Point, Newark, Niles, Woodside, Milpitas, La Honda, Mindego Hill, Cupertino, San Jose West*).

Further, we reviewed both configurations of the proposed Loop Road under consideration, as shown in the preliminary Loop Road configuration illustrations as (Figure 3), as provided by David J. Powers & Associates on October 9, 2023.

2.2 Site Visit

A reconnaissance-level field survey of the Specific Plan area was conducted by H. T. Harvey & Associates senior wildlife ecologist Stephen L. Peterson, M.S. on July 20, 2022. The purpose of this survey was to: 1) assess existing biotic habitats and general wildlife communities within the Specific Plan area and in adjacent areas; 2) determine if existing biotic habitats and conditions are the same or different than what the 2012 EIR described; 3) assess the potential for future projects to impact special-status species and/or their habitats; and 4) identify potential jurisdictional habitats, such as waters of the U.S./State. Because of the proximity of the Specific Plan area to sensitive/regulated habitats, including habitats potentially supporting several special-status species, adjacent areas were scrutinized as well. In addition, H. T. Harvey & Associates has performed environmental review and planning assistance for a number of projects in the Specific Plan area and drew on this experience when preparing this biological resources report.

Finalization of habitat types present in the Specific Plan area utilized a combination of previously mapped habitats as described in the 2012 EIR, field survey verification, and the latest aerial imagery of the Specific Plan area (Google LLC 2022).

Section 3. Regulatory Setting

In this section we provide an updated list of federal, state, and local laws and ordinances that regulate biological resources found in the Specific Plan area, which are described below. Where our opinions differ substantively from those provided in the 2012 EIR, we have noted those differences.

3.1 Federal Regulations

3.1.1 Clean Water Act

The Clean Water Act (CWA) functions to maintain and restore the physical, chemical, and biological integrity of waters of the U.S., which include, but are not limited to, tributaries to traditionally navigable waters currently or historically used for interstate or foreign commerce, and adjacent wetlands. Historically, in non-tidal waters, U.S. Army Corps of Engineers (USACE) jurisdiction extends to the ordinary high water mark, which is defined in Title 33, CFR, Part 328.3. If there are wetlands adjacent to channelized features, the limits of USACE jurisdiction extend beyond the ordinary high water mark to the outer edges of the wetlands. Wetlands that are not adjacent to waters of the U.S. are termed “isolated wetlands” and, depending on the circumstances, may be subject to USACE jurisdiction. In tidal waters, USACE jurisdiction extends to the landward extent of vegetation associated with salt or brackish water or the high tide line. The high tide line is defined in 33 CFR Part 328.3 as “the line of intersection of the land with the water’s surface at the maximum height reached by a rising tide.” If there are wetlands adjacent to channelized features, the limits of USACE jurisdiction extend beyond the ordinary high water mark or high tide line to the outer edges of the wetlands.

On December 30, 2022, the U.S. Environmental Protection Agency and Department of the Army (the agencies) announced a final “Revised Definition of ‘Waters of the United States’” rule founded upon the pre-2015 definition of “waters of the United States.” This rule was formally adopted in January 2023. To determine jurisdiction for tributaries, adjacent wetlands, and additional waters, the January 2023 rule relies on the longstanding approach of applying two standards. Certain types of waters are jurisdictional under the final rule if they meet either the relatively permanent standard or significant nexus standard. Following adoption of the new revised definition, the May 25, 2023 Supreme Court decision in *Sackett v. Environmental Protection Agency* further affected what can be claimed as waters of the U.S. Rule changes to the January 2023 revised rule consistent with this decision were formally adopted in September 2023, and restrict which wetlands can be considered “adjacent” to relatively permanent features that connect to traditional navigable waters. Broadly, wetlands outside of relatively permanent waters connecting to other waters of the U.S. must be connected via a “continuous surface connection” to those relatively permanent waters to be considered adjacent and therefore waters of the U.S. regulated under the Clean Water Act.

Construction activities within jurisdictional waters are regulated by the USACE. The placement of fill into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of Section 401 Water Quality Certification. The State Water Resources Control Board (SWRCB) is the

state agency (together with the Regional Water Quality Control Boards [RWQCBs]) charged with implementing water quality certification in California.

Project Applicability: The USACE is likely to claim jurisdiction over the salt marsh, open water, and tidal slough habitats that occur along the eastern and northern edges of the Specific Plan area (Figure 4), adjacent to San Francisco Bay, and therefore the Specific Plan area contains waters of the United States. USACE Section 404 jurisdiction would include the salt marsh habitat up to the landward extent of the marsh vegetation or the high tide line, whichever is further. If the salt marsh, open water, or tidal slough habitats are impacted by future Specific Plan activities, such as the construction of the proposed Loop Road (which would encroach upon existing salt marsh habitat and a pond in the northeastern portion of the Ravenswood OSP), a Section 404 permit from the USACE for each project that impacts jurisdictional areas would be necessary.

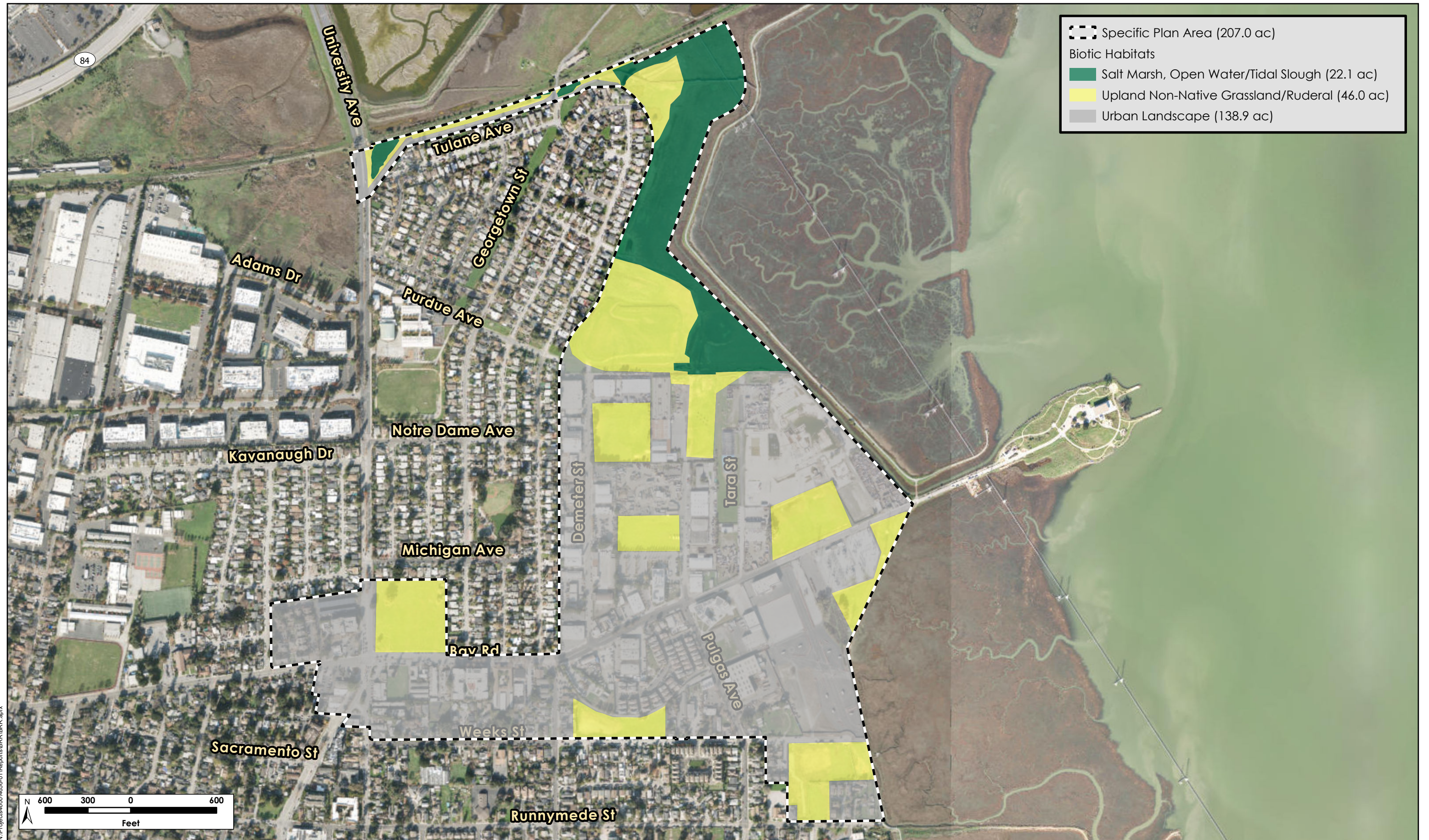
3.1.2 Rivers and Harbors Act

Section 10 of the Rivers and Harbors Act of 1899 prohibits the creation of any obstruction to the navigable capacity of waters of the U.S., including discharge of fill and the building of any wharfs, piers, jetties, and other structures without Congressional approval or authorization by the Chief of Engineers and Secretary of the Army (33 U.S.C. 403).

Navigable waters of the U.S., which are defined in 33 CFR, Part 329.4, include all waters subject to the ebb and flow of the tide, and/or those that are presently or have historically been used to transport commerce. The shoreward jurisdictional limit of tidal waters is further defined in 33 CFR, Part 329.12 as “the line on the shore reached by the plane of the mean (average) high water.” It is important to understand that the U.S. Army Corps of Engineers (USACE) does not regulate wetlands under Section 10, only the aquatic or open waters component of bay habitat, and that there is overlap between Section 10 jurisdiction and Section 404 jurisdiction. According to 33 CFR, Part 329.9, a waterbody that was once navigable in its natural or improved state retains its character as “navigable in law” even though it is not presently used for commerce because of changed conditions and/or the presence of obstructions. Historical Section 10 waters may occur behind levees in areas that are not currently exposed to tidal or muted-tidal influence and meet the following criteria: (1) the area is presently at or below the mean high water (MHW) line; (2) the area was historically at or below mean high water in its “unobstructed, natural state”; and (3) there is no evidence that the area was ever above mean high water.

If a project also proposes to discharge dredged or fill material and/or introduce other potential obstructions in navigable waters of the U.S., a Letter of Permission authorizing these impacts must be obtained from the USACE under Section 10 of the Rivers and Harbors Act.

Project Applicability: The tidal salt marsh, open water, and tidal slough habitats that are considered waters of the U.S. and are subject to USACE jurisdiction as described in Section 3.1.1 above would also be considered current Section 10 waters. If impacts to Section 10 waters occur as a result of future Specific Plan activities, a Letter of Permission from the USACE will likely be required for each project that impacts jurisdictional areas.



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Figure 4. Biotic Habitats Map
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3.1.3 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects federally listed wildlife species from harm or take, which is broadly defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct.” Take can also include habitat modification or degradation that directly results in death or injury of a listed wildlife species. An activity can be defined as take even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species. Listed plant species are legally protected from take under the FESA only if they occur on federal lands.

The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) have jurisdiction over federally listed, threatened, and endangered species under FESA. The USFWS also maintains lists of proposed and candidate species. Species on these lists are not legally protected under FESA, but may become listed in the near future and are often included in their review of a project.

Project Applicability: The 2012 EIR determined that one federally listed plant, California seablite (*Suaeda californica*), had low potential to occur in the Specific Plan area. Due to the near-extirpation of this species from the region except for a few well-known populations, as well as the absence of high-quality habitat from the Specific Plan area, it is our opinion that California seablite is absent from the Specific Plan area, and therefore, no federally listed plant species occur on or near the area.

However, several federally listed, proposed, or candidate animal species could occur in or adjacent to the Specific Plan area. The federally endangered California Ridgway’s rail (*Rallus obsoletus obsoletus*) and salt marsh harvest mouse (*Reithrodontomys raviventris*) are known to occur in the Ravenswood OSP and other marshes located immediately east of the Specific Plan area, and both species likely occur in suitable salt marsh habitat along the eastern edge of the Specific Plan area. Additionally, the federally threatened western snowy plover (*Charadrius alexandrinus nivosus*) occurs in managed ponds immediately north of the Specific Plan area.

The federally threatened Central California Coast steelhead (*Oncorhynchus mykiss*) and southern green sturgeon (*Acipenser medirostris*), and the federally proposed longfin smelt (*Spirinchus thaleichthys*), could enter the unnamed tidal slough located immediately east of the Specific Plan area during high tide; however, they likely do so very infrequently, if at all, due to the absence of high-quality habitat, the narrow and shallow nature of the slough, and the absence of suitable habitat upstream from the Specific Plan area. The Bay Road tidal slough is located within designated critical habitat for the steelhead and green sturgeon. The monarch butterfly (*Danaus plexippus*), a candidate for federal listing, may breed in small numbers in the Specific Plan area but occurs primarily as an uncommon migrant.

Specific Plan activities, including the construction of the proposed new loop road, which would encroach upon existing salt marsh habitat and an open pond in the Ravenswood OSP, could potentially result in take of federally listed or candidate species. During Section 404/Section 10 permitting, documentation of potential effects (or lack thereof) of projects on listed species will be prepared, and the USACE will consult as necessary with the USFWS and NMFS regarding any such effects.

3.1.4 Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act governs all fishery management activities that occur in federal waters within the United States' 200-nautical-mi limit. The Act establishes eight Regional Fishery Management Councils responsible for the preparation of fishery management plans (FMPs) to achieve the optimum yield from U.S. fisheries in their regions. These councils, with assistance from the National Marine Fisheries Service (NMFS), establish Essential Fish Habitat (EFH) in FMPs for all managed species. Federal agencies that fund, permit, or implement activities that may adversely affect EFH are required to consult with the NMFS regarding potential adverse effects of their actions on EFH, and respond in writing to recommendations by the NMFS.

Project Applicability: The intertidal habitats adjacent to the Specific Plan area up to the elevation of mean higher high water are considered to be EFH for a number of species that are federally managed under one or more of the following three FMPs:

- Coastal Pelagic FMP – northern anchovy (*Engraulis mordax*), Pacific sardine (*Sardinops sagax*), mackerel, squid
- Pacific Groundfish FMP – various rockfish, soles, and sharks
- Pacific Salmon FMP – Chinook salmon (*Oncorhynchus tshawytscha*)

FMP-managed fish species may occasionally enter tidal sloughs adjacent to the Specific Plan area to forage during high tide. However, due to the very narrow and shallow nature of these channels, FMP-managed fish are expected to make limited use of the tidal channels adjacent to the Specific Plan area. Because individual projects may impact EFH, consultation between the USACE and NMFS regarding potential project effects on EFH would occur concurrently with Section 7 consultation under FESA, as described above.

3.1.5 Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA), 16 U.S.C. Section 703, prohibits killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. The MBTA protects whole birds, parts of birds, and bird eggs and nests, and it prohibits the possession of all nests of protected bird species whether they are active or inactive. An active nest is defined as having eggs or young, as described by the USFWS in its June 14, 2018 memorandum “Destruction and Relocation of Migratory Bird Nest Contents”. Nest starts (nests that are under construction and do not yet contain eggs) and inactive nests are not protected from destruction.

In recent years, there have been changes to how the MBTA is implemented and enforced with respect to incidental take of protected birds. However, on October 4, 2021, the USFWS published a final rule revoking a January 7, 2021 regulation that limited the scope of the MBTA. The final rule went into effect on December 3, 2021. With this final and formal revocation of the January 7, 2021 rule, the USFWS returns to implementing

the MBTA as prohibiting incidental take and applying enforcement discretion, consistent with judicial precedent.

Project Applicability: All native bird species that occur in the Specific Plan area are protected under the MBTA.

3.2 State Regulations

3.2.1 California Endangered Species Act

The California Endangered Species Act (CESA; California Fish and Game Code, Chapter 1.5, Sections 2050-2116) prohibits the take of any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with CESA, the California Department of Fish and Wildlife (CDFW) has jurisdiction over state-listed species (Fish and Game Code 2070). The CDFW regulates activities that may result in take of individuals (i.e., “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”). Habitat degradation or modification is not expressly included in the definition of take under the California Fish and Game Code. The CDFW, however, has interpreted take to include the “killing of a member of a species which is the proximate result of habitat modification.”

Project Applicability: The state endangered California Ridgway’s rail and salt marsh harvest mouse are known to occur in the Ravenswood OSP and other marshes located immediately east of the Specific Plan area, and both species likely occur in suitable salt marsh habitat along the eastern edge of the Specific Plan area. In addition, the state threatened California black rail (*Laterallus jamaicensis coturniculus*) has the potential to occur in the same habitats as the California Ridgway’s rail and salt marsh harvest mouse. The state threatened longfin smelt may occasionally occur in the unnamed tidal slough, east of the Specific Plan area, as discussed in Section 3.1.3. The state threatened tricolored blackbird (*Agelaius tricolor*) is expected to occur as a nonbreeding visitor, albeit infrequently and in low numbers. There is a low probability that the Crotch’s bumble bee (*Bombus crotchii*), a candidate for state listing, breeds in the Specific Plan area. If it does so, it would breed only in very low numbers. More likely, the species occurs only as a forager if it is present at all.

3.2.2 California Environmental Quality Act

CEQA is a state law that requires state and local agencies to document and consider the environmental implications of their actions and to refrain from approving projects with significant environmental effects if there are feasible alternatives or mitigation measures that can substantially lessen or avoid those effects. CEQA requires the full disclosure of the environmental effects of agency actions, such as approval of a general plan update or the projects covered by that plan, on resources such as air quality, water quality, cultural resources, and biological resources. The State Resources Agency promulgated guidelines for implementing CEQA known as the State CEQA Guidelines.

Section 15380(b) of the State CEQA Guidelines provides that a species not listed on the federal or state lists of protected species may be considered rare if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions in the FESA and the CESA and the section of the California

Fish and Game Code dealing with rare or endangered plants and animals. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW or species that are locally or regionally rare.

The CDFW has produced three lists (amphibians and reptiles, birds, and mammals) of “species of special concern” that serve as “watch lists”. Species on these lists are of limited distribution or the extent of their habitats has been reduced substantially, such that threat to their populations may be imminent. Thus, their populations should be monitored. They may receive special attention during environmental review as potential rare species, but do not have specific statutory protection. All potentially rare or sensitive species, or habitats capable of supporting rare species, are considered for environmental review per the CEQA Section 15380(b).

The CNPS, a non-governmental conservation organization, has developed CRPRs for plant species of concern in California in the CNPS Inventory of Rare and Endangered Plants. The CRPRs include lichens, vascular, and non-vascular plants, and are defined as follows:

- CRPR 1A Plants considered extinct.
- CRPR 1B Plants rare, threatened, or endangered in California and elsewhere.
- CRPR 2A Plants considered extinct in California but more common elsewhere.
- CRPR 2B Plants rare, threatened, or endangered in California but more common elsewhere.
- CRPR 3 Plants about which more information is needed - review list.
- CRPR 4 Plants of limited distribution-watch list.

The CRPRs are further described by the following threat code extensions:

- .1—seriously endangered in California;
- .2—fairly endangered in California;
- .3—not very endangered in California.

Although the CNPS is not a regulatory agency and plants on these lists have no formal regulatory protection, plants appearing as CRPR 1B or 2 are, in general, considered to meet CEQA’s Section 15380 criteria, and adverse effects to these species may be considered significant. Impacts on plants that are listed by the CNPS on CRPR 3 or 4 are also considered during CEQA review, although because these species are typically not as rare as those of CRPR 1B or 2, impacts on them are less frequently considered significant.

Compliance with CEQA Guidelines Section 15065(a) requires consideration of natural communities of special concern, in addition to plant and wildlife species. Vegetation types of “special concern” are tracked in Rarefind (CNDDDB 2020). Further, the CDFW ranks sensitive vegetation alliances based on their global (G) and state (S)

rankings analogous to those provided in the CNDDDB. Global rankings (G1–G5) of natural communities reflect the overall condition (rarity and endangerment) of a habitat throughout its range, whereas S rankings are a reflection of the condition of a habitat within California. If an alliance is marked as a G1–G3, all of the associations within it would also be of high priority. The CDFW provides the Vegetation Classification and Mapping Program’s currently accepted list of vegetation alliances and associations (CDFW 2020).

Project Applicability: All potential impacts from future project activities on biological resources will be considered during CEQA review of the project in the context of this Biological Resources Report. Potential impacts from future projects are discussed in Section 6 below.

3.2.3 California Fish and Game Code

Ephemeral and intermittent streams, rivers, creeks, dry washes, sloughs, blue line streams on USGS maps, and watercourses with subsurface flows fall under CDFW jurisdiction. Canals, aqueducts, irrigation ditches, and other means of water conveyance may also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. A *stream* is defined in Title 14, California Code of Regulations Section 1.72, as “a body of water that follows at least periodically or intermittently through a bed or channel having banks and that supports fish and other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation.” Using this definition, CDFW extends its jurisdiction to encompass riparian habitats that function as a part of a watercourse. California Fish and Game Code Section 2786 defines *riparian habitat* as “lands which contain habitat which grows close to and which depends upon soil moisture from a nearby freshwater source.” The lateral extent of a stream and associated riparian habitat that would fall under the jurisdiction of CDFW can be measured in several ways, depending on the particular situation and the type of fish or wildlife at risk. At minimum, CDFW would claim jurisdiction over a stream’s bed and bank. Where riparian habitat is present, the outer edge of riparian vegetation is generally used as the line of demarcation between riparian and upland habitats.

Pursuant to California Fish and Game Code Section 1603, CDFW regulates any project proposed by any person that will “substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds.” California Fish and Game Code Section 1602 requires an entity to notify CDFW of any proposed activity that may modify a river, stream, or lake. If CDFW determines that proposed activities may substantially adversely affect fish and wildlife resources, a Lake and Streambed Alteration Agreement (LSAA) must be prepared. The LSAA sets reasonable conditions necessary to protect fish and wildlife and must comply with CEQA. The applicant may then proceed with the activity in accordance with the final LSAA.

Certain sections of the California Fish and Game Code describe regulations pertaining to protection of certain wildlife species. For example, Code Section 2000 prohibits take of any bird, mammal, fish, reptile, or amphibian except as provided by other sections of the code.

The California Fish and Game Code Sections 3503, 3513, and 3800 (and other sections and subsections) protect native birds, including their nests and eggs, from all forms of take. Disturbance that causes nest abandonment

and/or loss of reproductive effort is considered take by the CDFW. Raptors (e.g., eagles, hawks, and owls) and their nests are specifically protected in California under Code Section 3503.5. Section 3503.5 states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.”

Bats and other non-game mammals are protected by California Fish and Game Code Section 4150, which states that all non-game mammals or parts thereof may not be taken or possessed except as provided otherwise in the code or in accordance with regulations adopted by the commission. Activities resulting in mortality of non-game mammals (e.g., destruction of an occupied bat roost, resulting in the death of bats), or disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), may be considered take by the CDFW.

Project Applicability: Typically, CDFW does not consider tidal features with no freshwater upstream inputs to fall within its jurisdiction under §1602 of the California Fish and Game Code. Because the tidal slough in Ravenswood OSP that runs along the outside of the Specific Plan area’s eastern boundary receives hydrology only from the San Francisco Bay, this feature is not expected to be regulated as a jurisdictional stream by CDFW. No other streams or riparian habitats expected to be regulated by CDFW under §1602 of the California Fish and Game Code are present in the Specific Plan area.

All native bird, mammal, and other wildlife species that occur in the Specific Plan area and in the immediate vicinity are protected by the California Fish and Game Code.

3.2.4 Porter-Cologne Water Quality Control Act

The SWRCB works in coordination with the nine RWQCBs to preserve, protect, enhance, and restore water quality. Each RWQCB makes decisions related to water quality for its region, and may approve, with or without conditions, or deny projects that could affect waters of the state. Their authority comes from the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne). Porter-Cologne broadly defines waters of the state as “any surface water or groundwater, including saline waters, within the boundaries of the state.” Because Porter-Cologne applies to any waters, whereas the CWA applies only to certain waters, California’s jurisdictional reach overlaps and may exceed the boundaries of waters of the U.S. For example, Water Quality Order No. 2004-0004-DWQ states that “shallow” waters of the state include headwaters, wetlands, and riparian areas. Moreover, the San Francisco Bay Region RWQCB’s Assistant Executive Director has stated that, in practice, the RWQCBs claim jurisdiction over riparian areas. Where riparian habitat is not present, as the case may be at headwaters, jurisdiction is taken to the top of bank.

On April 2, 2019, the SWRCB adopted the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*. In these new guidelines, riparian habitats are not specifically described as waters of the state but instead as important buffer habitats to streams that conform to the State Wetland Definition. The *Procedures* describe riparian habitat buffers as both important resources that may be included in required

mitigation packages for permits for impacts to waters of the state, as well as areas requiring permit authorization from the RWQCBs to impact.

Pursuant to the CWA, projects that are regulated by the USACE must also obtain a Section 401 Water Quality Certification permit from the RWQCB. This certification ensures that the proposed project will uphold state water quality standards. Because California's jurisdiction to regulate its water resources is much broader than that of the federal government, proposed impacts on Waters of the State may require Waste Discharge Requirements even if the area occurs outside of USACE jurisdiction. Moreover, the RWQCB may impose mitigation requirements even if the USACE does not, for example for riparian habitats which are buffers to Waters of the State. Under the Porter-Cologne, the SWRCB and the nine regional boards also have the responsibility of granting CWA National Pollutant Discharge Elimination System (NPDES) permits and Waste Discharge Requirements for certain point-source and non-point discharges to waters. These regulations limit impacts on aquatic and riparian habitats from a variety of urban sources.

Project Applicability: All wetlands and other waters described in Section 3.1.1 as being regulated by the USACE under Section 404 of the CWA would also be considered waters of the state by the RWQCB. In addition, the RWQCB could potentially claim jurisdiction over the banks of the unnamed tidal slough east of the Specific Plan area, up to the top of bank (i.e., upslope from the limits of USACE jurisdiction). Impacts to waters of the state would necessitate 401 water quality certification and/or Porter-Cologne Waste Discharge Requirements for each project that impacts jurisdictional areas.

3.2.5 The McAteer-Petris Act

The McAteer-Petris Act, enacted on September 17, 1965, serves as a legal provision under California state law to preserve San Francisco Bay from indiscriminate filling. The act initially established the San Francisco Bay Conservation and Development Commission (BCDC) as a temporary state agency charged with preparing a plan for the long-term use of the San Francisco Bay. In August 1969, the McAteer-Petris Act was amended to make BCDC a permanent regulatory agency to incorporate the policies of the Bay Plan (BCDC 2012). BCDC jurisdiction includes a 100-ft wide band along the shoreline of the San Francisco Bay. The *shoreline* is defined as all areas that are subject to tidal action from the south end of the San Francisco Bay to the Golden Gate (Point Bonita–Point Lobos), and to the Sacramento River line (a line between Stake Point and Simmons Point, extended northeasterly to the mouth of Marshall Cut). The BCDC will claim all sloughs (specifically, marshlands lying between mean high tide and up to 5 feet above mean sea level where marsh vegetation is present); tidelands (lands between mean high tide and mean low tide); and submerged lands (land lying below mean low tide) in this region. The McAteer-Petris Act also requires that “maximum feasible public access, consistent with a project be included as part of each project to be approved by the BCDC.”

Project Applicability: The portions of the unnamed tidal slough, and all other tidal salt marsh along the eastern edge of the Specific Plan area may fall within BCDC's Bay jurisdiction due to their connectivity to San Francisco Bay. BCDC's shoreline jurisdiction extends 100 feet inland from those areas of Bay jurisdiction. Work within BCDC's Bay jurisdiction would require a permit from the BCDC. Coordination with BCDC may be necessary

to determine the precise location of BCDC jurisdiction on/near any future project sites within the eastern portions of the Specific Plan area.

3.2.6 State Water Resources Control Board Stormwater Regulation

Construction Phase. Construction projects in California causing land disturbances that are equal to 1 ac or greater must comply with state requirements to control the discharge of stormwater pollutants under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit; Water Board Order No. 2009-0009-DWQ, as amended and administratively extended). Prior to the start of construction/demolition, a Notice of Intent must be filed with the SWRCB describing the project. A Storm Water Pollution Prevention Plan (SWPPP) must be developed and maintained during the project and it must include the use of best management practices (BMPs) to protect water quality until the site is stabilized.

Standard permit conditions under the Construction General Permit requires that the applicant utilize various measures including: on-site sediment control BMPs, damp street sweeping, temporary cover of disturbed land surfaces to control erosion during construction, and utilization of stabilized construction entrances and/or wash racks, among other factors. Additionally, the Construction General Permit does not extend coverage to projects if stormwater discharge-related activities are likely to jeopardize the continued existence or result in take of any federally listed endangered or threatened species.

Post-Construction Phase. In many Bay Area counties, including San Mateo County, projects must also comply with the California RWQCB, San Francisco Bay Region, Municipal Regional Stormwater NPDES Permit (Water Board Order No. R2-2015-0049, as amended). This permit requires that all projects implement BMPs and incorporate Low Impact Development practices into the design that prevent stormwater runoff pollution, promote infiltration, and hold/slow down the volume of water coming from a site. In order to meet these permit and policy requirements, projects must incorporate the use of green roofs, impervious surfaces, tree planters, grassy swales, bioretention and/or detention basins, among other factors.

Project Applicability: Any future projects within the Specific Plan area will comply with the requirements of the NPDES Statewide Storm Water Permit and Statewide General Construction Permit.

3.3 Local Regulations

3.3.1 City of East Palo Alto Tree Protection Policies

Section 6420 of the City's Municipal Code states that it is unlawful for any person to destroy or remove or cause to be destroyed or removed, any protected tree upon any private or public property in the city without first having obtained a permit to do so. The removal of trees with a main stem or trunk that measures 40 inches in circumference (12.7 inches in diameter) 2 ft above the natural grade and the removal of all street trees planted in the public right-of-way requires the issuance of a Tree Removal permit from the City's Planning and Housing Division. The conditions of the permit require mitigation at a 3:1 ratio, or less for the removal of trees protected

by this ordinance (referred to as “ordinance-size trees”). In addition, the removal of any tree that existed at the time of an approval granted under the City's subdivision or zoning ordinance and required to be preserved as part of such approval, as well as any tree required to be planted as a condition of any development approval granted by the City, requires a permit. However, tree trimming does not require authorization by the City. Furthermore, the following activities are exempt from the permitting process:

- If the condition of a tree presents an immediate hazard to life or property, it may be removed without a permit by order of the city manager, the city building inspector, or the city director of planning.
- Employees of the city may without a permit take such action with regard to trees on city-owned property as may be necessary to maintain safety.
- Public utilities subject to the jurisdiction of the state public utilities commission may without a permit take such action as may be necessary to comply with the safety regulations of the commission and may be necessary to maintain a safe operation of their facilities.
- Where removal of a tree has been authorized as part of any development approval granted by the City, no permit shall be required for removal of such tree.

Project Applicability: Any future projects within the Specific Plan area will comply with the requirements of the City of East Palo Alto's tree protection policies.

3.3.2 Baylands Ecosystem Habitat Goals Project

In 1999, the San Francisco Bay Area Wetlands Ecosystem Goals Project, the United States Environmental Protection Agency (EPA) and the San Francisco RWQCB prepared the Baylands Ecosystem Habitat Goals: A Report of Habitat Recommendations. The purpose of the report is to provide goals and recommendations for the conservation and restoration of tidal wetlands and associated habitats.¹ Broad goals listed that are relevant to the Specific Plan area include:

- Assign high priority (or equal to that of intertidal marsh) to ecological restoration of upper marsh transition zones based on natural models and reference sites.
- Provide sufficient topographic relief adjacent to protected intertidal marsh areas to afford refuge during normal tidal and high flood water depths. This is particularly important in areas where rare and endangered salt marsh vertebrate species are known or likely inhabitants.
- Provide additional upland buffers for the marshes in the Palo Alto area, citing Cooley Landing as the northern limit.

¹ It should be noted that these are advisory, not statutory requirements.

- Increase alien predator management and better marsh corridors or connections between present marshes.

The buffer distance recommendation is specified in the general goals as “at least 300 feet wide between the upper edge of the marsh/upland transition and neighboring areas of developed use” and “[W]here existing land uses or other factors such as steep terrain preclude this, wetland buffers should be no narrower than 100 feet.”

The report also includes goals specific to the Mountain View Segment, which includes the Specific Plan area. Mountain View Segment goals that are relevant to the Specific Plan area include:

- Restore large areas of tidal marsh and provide a continuous corridor of tidal marsh along the bayshore.
- Provide more and wider buffers to tidal marshes, and improve management to reduce human intrusion and predators.

In addition, the report makes the following recommendation for the bayshore environment in the Specific Plan area.

“The marshes between Charleston Slough to Cooley Landing in the Palo Alto Sector, including the Palo Alto Education Center Marsh, need more upland buffers, better protection from illegal entry, more alien predator management and better marsh corridors or connections between present marshes. Again, the 100-yard minimum rule and appropriate vegetation rule applies to both buffers and upper edges. The Palo Alto Marsh continues to change in vegetation (for the worse) and the upland edge of the marsh is very abrupt and needs modification.”

Project Applicability: Any future projects within the Specific Plan area will consider the goals and recommendations as set forth in the Baylands Ecosystem Habitat Goals Report.

3.3.3 City of East Palo Alto General Plan Conservation and Open Space Element

The City of East Palo Alto’s General Plan includes goals and policies for the conservation of natural resources. The Conservation and Open Space Element of the General Plan includes Policy 2.1, which states “Conserve, protect, and maintain important natural plant and animal communities, such as the Baylands, Cooley Landing, the shoreline, and significant tree stands.”

The General Plan’s Conservation and Open Space Element emphasizes the desire to ensure that “important natural features such as the Baylands, San Francisquito Creek, and the shoreline” are not impacted by urban development. Figure COS-2 of the Conservation and Open Space Element maps the salt marsh habitat within and adjacent to the Specific Plan area as a Sensitive Habitat. The plan notes the need to control surface runoff from development with respect to sensitive habitats. The plan goes on to say “although access to these areas is necessary for passive recreational activities, limitation on the extent and location of access can promote sustainable habitats.” Specifically addressing the Baylands and Ravenswood Preserves, the Plan states that

“preservation of wetland habitat and wildlife populations have priority in the management strategy of (these areas).”

Project Applicability: Any future projects within the Specific Plan area will consider the goals and policies for the conservation of natural resources as set forth in the Conservation and Open Space Element of the City of East Palo Alto’s General Plan.

Section 4. Environmental Setting

In this section we describe the existing conditions of the Specific Plan area with respect to dominant habitats, common/typical plant and animal species, special-status species, and regulated/sensitive habitats. Where descriptions of existing conditions in the 2012 EIR are still accurate and applicable, we have largely re-used those descriptions for the sake of consistency. Where our findings differ from those provided in the 2012 EIR, we have noted those differences.

4.1 General Project Area Description

The 207-ac Specific Plan area is located in the City of East Palo Alto in San Mateo County, California and occurs within the *Palo Alto* and *Mountain View, California* U.S. Geological Survey (USGS) 7.5-minute quadrangles. The Specific Plan area includes areas of residential and industrial urban development, as well as undeveloped areas adjacent to tidal marsh and upland habitats to the north and east. The Stanford Fill, an area that includes a mound of fill soil approximately 6 ac in size, is located in the center of the Specific Plan area. The mound of fill is approximately 16 to 27 ft in height with relatively steep sides. The area supports nonnative grassland/ruderal upland vegetation. Vegetation extending to the east of this mound transitions from upland species to salt marsh habitat. Adjacent to the Specific Plan area is the Ravenswood OSP, a 270-ac preserve that includes a restored former salt pond that is owned and managed by the Midpeninsula Regional Open Space District. The preserve supports a portion of the Bay Trail, which is open to the public, and intact salt marsh habitat and a host of wildlife species dependent on this habitat type. Beyond the preserve to the east are the open waters of the San Francisco Bay, with extensive areas of mud flats during low tides.

The climate within the region is Mediterranean, with moist, mild winters and dry summers. Average precipitation in East Palo Alto is 16 inches per year and average temperatures range from 49 to 70 °F. Locations along the bay are often windy.

4.2 Biotic Habitats

The Specific Plan area supports four general habitat/land use types: 1) northern coastal salt marsh and 2) open water/tidal slough (which together total 22.1 ac); 3) nonnative grassland/ruderal (46.0 ac); and 4) urban landscape (138.9 ac). In some areas, such as along the northwestern and northeastern boundaries of the Specific Plan area and south of the railroad tracks, upland habitat is interspersed with low areas (depressions) that support wetland vegetation. A wetland delineation would be necessary to accurately map wetland habitats as well as determine agency jurisdiction.

The 2012 EIR included two habitat types within urban areas: “barren/ruderal” and “urban landscape”. However, our examination of the sites that had been designated as “barren/ruderal” in 2012 showed no substantial differences in habitat conditions from the sites that were considered nonnative grassland/ruderal, and therefore, we have mapped all upland areas dominated by grasses and other (primarily nonnative)

herbaceous plants as nonnative grassland/ruderal. The extent of the areas that were considered barren/ruderal habitat in 2012 have changed since then due to development of some infill parcels, as follows: 1) a housing complex is now located in the south end of the Specific Plan area, located between Maple Place and Pulgas Avenue; 2) the EPA Center (i.e., East Palo Alto youth center), located at the corner of Bay Road and Pulgas Avenue; and 3) an extension of the Ravenswood Family Health Center and associated parking lot, located north of Bay Road and west of Pulgas Avenue. In addition, a small portion of nonnative grassland/ruderal habitat in the far southeast corner of the Specific Plan area, located north of Runnymede Street, is now a single family home; the field directly east of this home, which was mapped as urban landscape habitat in 2012, is now occupied by nonnative grassland. These habitats/land use types are described in detail below (using text from the 2012 EIR to the extent it is still accurate and applicable), and their locations are shown on Figure 4.

4.2.1 Northern Coastal Salt Marsh

Vegetation. Salt marshes are transitional areas between land and water, and northern coastal salt marsh occurs along the north and east margin of the Specific Plan area adjacent to the San Francisco Bay. Northern coastal salt marsh habitat is typically dominated by a small number of hydrophytic and herbaceous plant species forming a dense cover. This habitat type has been significantly reduced in size within the San Francisco Bay since European settlement and development/filling of the bay. Remaining salt marsh habitat is highly valued for its function in maintaining a healthy bay ecosystem. Northern coastal salt marsh habitat supports a variety of wildlife species and provides critical filtration of sediments and toxins from the water. Decaying salt marsh vegetation provides a source of nourishment for bacteria and invertebrates, and remaining detritus provides fertilizer for regeneration of marsh vegetation.



Photo 1. Looking northeast from Bay Road towards salt marsh habitat.

Vegetation within the salt marsh is segregated into zones influenced by the amount of tidal inundation. The lower zone (to mean high tide) is characterized by cordgrass (*Spartina* spp.), the middle zone (from mean high tide to higher tide) is characterized by pickleweed (*Salicornia* spp.), and the upper zone is typified by saltgrass (*Distichlis spicata*). Other species found within the Specific Plan area in the middle and upper salt marsh zones include marsh gum-plant (*Grindelia stricta* var. *angustifolia*), alkali heath (*Frankenia salina*), dodder (*Cuscuta salina*), salt marsh fleabane (*Pluchea odorata*), cattail (*Typha angustifolia*), fat hen (*Atriplex triangularis*), and alkali weed (*Cressa truxillensis*), among others.

The northeast part of the Specific Plan area, between University Village and Ravenswood OSP, supports primarily northern coastal salt marsh habitat. The very northwest corner of the Specific Plan area supports an area of salt marsh habitat, and the Specific Plan area's north boundary, between the edge of the University

Village neighborhood and the railroad tracks, supports upland vegetation with scattered, low-lying areas that contain salt marsh vegetation (Photo 1).

Wildlife. Northern coastal salt marsh habitat supports a variety of bird species, both resident and migratory. Species occurring within this habitat adjacent to and within the Specific Plan area include a variety of shorebirds such as American avocet (*Recurvirostra americana*), willet (*Tringa semipalmata*), black-necked stilt (*Himantopus mexicanus*), long-billed curlew (*Numenius americanus*), short-billed dowitcher (*Limnodromus griseus*), and several sandpipers, as well as grebes, egrets, and herons. A diversity of ducks frequent the South Bay, and those occurring within salt marsh habitat in the Specific Plan area include American wigeon (*Mareca americana*), northern shoveler (*Spatula chipeata*), mallard (*Anas platyrhynchos*), and green-winged teal (*Anas crecca*). Raptors typically found in South Bay salt marsh habitats include the northern harrier (*Circus hudsonius*) and American kestrel (*Falco sparverius*). Mammals found in this habitat include the California vole (*Microtus californicus*), western harvest mouse (*Reithrodontomys megalotis*), and black-tailed jackrabbit (*Lepus californicus*), among others. Northern coastal salt marsh also provides habitat for several special-status San Francisco Bay species, as described in Section 5.2 below.

Northern coastal salt marsh is considered a sensitive community by CDFW due to the extensive loss of salt marsh habitat throughout California, and due to the high level of productivity within this community and its crucial role in supporting bay and ocean health.

4.2.2 Open Water/Tidal Slough

Vegetation. Within the salt marsh habitat is a network of channels and sloughs supporting open water (Photo 2). Unlike a salt marsh, open water is not a vegetation community, but a distinct habitat type within the salt marsh. The open water/tidal sloughs on-site are tidally influenced, and thus water levels change with the changing tide. Two areas of ponded water associated with this network and close to the urban interface are found at the terminus of Stevens Avenue, north of the Stanford Fill, and northeast of the University Village neighborhood, approximately 175 ft northwest of the terminus of Fordham Street, where a recently constructed pedestrian bridge crosses a pond in the Ravenswood OSP.



Photo 2. Snowy egrets (*Egretta thula*) foraging along the tidal slough located east of the Specific Plan area.

Wildlife. Open water/tidal sloughs within the Specific Plan area support many of the same species found within the salt marsh habitat. Shorebirds may forage in the sloughs during low tide, and other types of birds, such as ducks and egrets, use the open water habitats during both low and high tide. Aquatic species such as invertebrates and fish occur in the open water habitats on-site.

4.2.3 Nonnative Grassland/Ruderal

Vegetation. Portions of the upland habitat within the Specific Plan area are composed of nonnative annual grassland/ruderal habitat. Ruderal vegetation and nonnative annual grassland are mixed plant communities in which the native vegetation has been modified by grading, cultivation, grazing, or other surface disturbances. Such areas, if left undeveloped, may be colonized by invasive exotic species, as well as by certain native species. The native vegetation may ultimately become at least partially restored if the soils are left intact and there is no continued disturbance. This habitat community is found on the Stanford Fill (Photo 3) as well as upland areas that occur between salt water marsh and the University Village and Ravenswood Industrial neighborhoods, and other undeveloped “infill” parcels. Some woody vegetation occurs in this area as well, such as coyote brush (*Baccharis pilularis*) and coast live oak (*Quercus agrifolia*). Non-native annual grassland/ruderal habitat is also found north of University Village. As described above, areas of salt marsh are interspersed in the upland area located north of University Village and south of the railroad tracks.



Photo 3. Looking north from the terminus end of Demeter Street towards the Stanford Fill area – representative of the non-native grassland/ruderal habitat, which then transitions to salt marsh habitat to the east.

Vegetation species found in the Specific Plan area within nonnative annual grassland habitat include curly dock (*Rumex crispus*), peppergrass (*Lepidium oxycarpum*), ice plant (*Carpobrotus edulis*), fennel (*Foeniculum vulgare*), bristly ox-tongue (*Picris echioides*), wild radish (*Raphanus sativa*), Italian ryegrass (*Lolium multiflorum*), wild oat (*Avena fatua*) and yellow star thistle (*Centaurea solstitialis*), among others. Occasional woody species also occur, including coast live oak, coyote bush, and olive (*Olea europaea*).

Wildlife. Wildlife use of nonnative annual grassland/ruderal habitats within the Specific Plan area is limited by human disturbance, the small extent of the grassland area, and the isolation of these habitat remnants from more extensive grasslands. Many of the bird species that occur in the small grassland areas in the Specific Plan area occur primarily in adjacent ornamental woodland areas and use these grasslands for foraging. Such species include the house finch (*Haemorhous mexicanus*), bushtit (*Psaltriparus minimus*), and lesser goldfinch (*Spinus psaltria*), which forage on seeds in grassland areas, and the black phoebe (*Sayornis nigricans*), cliff swallow (*Petrochelidon pyrrhonota*), and Mexican free-tailed bat (*Tadarida brasiliensis*), which forage aerially over grassland habitats for insects.

Rodent species that could potentially occur in this habitat include the California vole, Botta’s pocket gopher (*Thomomys bottae*), California ground squirrel (*Otospermophilus beecheyi*), and deer mouse (*Peromyscus maniculatus*). Raptors such as red-tailed hawks (*Buteo jamaicensis*) and barn owls (*Tyto alba*) forage for these small mammals over the grasslands. Mammals such as the native striped skunk (*Mephitis mephitis*) and raccoon (*Procyon lotor*), and

nonnative Virginia opossum (*Didelphis virginiana*) also use grassland habitats in the Specific Plan area for foraging. Reptiles such as western fence lizards (*Sceloporus occidentalis*) and western terrestrial garter snakes (*Thamnophis elegans*) frequent grassland habitats, and may occur in the Specific Plan area.

4.2.4 Urban Landscape

Vegetation. The majority of the Specific Plan area is composed of developed urban landscape land-use types, with little to no native vegetation communities. The urban area is a mix of residences, small businesses, and industrial development (Photo 4). Various ornamental plant species, as well as some natives, are found within the urban setting within landscaped features and street strips. For example, blue gum eucalyptus trees (*Eucalyptus globulus*) and sweet gum (*Liquidambar styraciflua*) are common, and native coast live oak occurs infrequently.



Photo 4. Ravenswood Health Center on Bay Road is an example of the Urban Landscape land-use type within the Specific Plan area, surrounded by ornamental trees, a community garden and other vegetation.

Wildlife. A variety of urban-adapted bird species are associated with nonnative, ornamental trees, which are used for nesting, roosting, and foraging. Those species include the Anna's hummingbird (*Calypte anna*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), bushtit, and Bewick's wren (*Thryomanes bewickii*). Other common wildlife species that may occur in the understory are similar to those described under the nonnative grassland/ruderal habitat above.

4.3 Wildlife Movement

The 2012 EIR did not discuss baseline conditions for wildlife movement; this section provides such a discussion. Wildlife movement within and in the vicinity of the project footprint takes many forms, and is different for the various suites of species associated with these lands. Bats, and most bird species, move readily over the landscape in the project vicinity, foraging over and within both natural lands and landscaped areas. Mammals of different species move within their home ranges, but also disperse between patches of habitat. Generally, reptiles and amphibians similarly settle within home ranges, sometimes moving to central breeding areas, upland refugia, or hibernacula in a predictable manner, but also dispersing to new areas. Some species, especially among the birds and bats, are migratory, moving into or through the project vicinity during specific seasons. Aside from bats, there are no other mammal species in the vicinity of the Specific Plan area that are truly migratory. However, the young of many mammal species disperse from their natal home ranges, sometimes moving over relatively long distances in search of new areas in which to establish.

Movement corridors are segments of habitat that provide linkage for wildlife through the mosaic of suitable and unsuitable habitat types found within a landscape while also providing cover. On a broader level, corridors also function as paths along which wide-ranging animals can travel, populations can move in response to environmental changes and natural disasters, and genetic interchange can occur. In California, environmental corridors often consist of riparian areas along streams, rivers, or other natural features, although any relatively contiguous area with suitable cover and other necessary resources may serve as a corridor as long as no barriers to dispersal are present.

Due to the density of development and the lack of continuous, well-vegetated pathways through urbanized East Palo Alto and its surroundings, there are currently no well-defined movement corridors for mammals, amphibians, or reptiles within or through the majority of the Specific Plan area. Urban-adapted wildlife species such as raccoons, striped skunks, and western fence lizards that reside in the urban landscape and nonnative grassland/ruderal habitats may move through the Specific Plan area using cover and refugia as they find them available. Although roads, fences, and buildings constrain such movements, these urban-adapted species are able to move within and throughout the majority of the Specific Plan area, either during longer dispersal events or over time and generations. Longer-distance, more regionally important dispersal is expected to occur only along higher-quality, more natural habitats with few impediments to movement. In the Specific Plan area, such dispersal would occur only along the northern and eastern borders (e.g., along the rail line comprising the northern boundary of the Specific Plan area and along the eastern upland/wetland interface adjacent to the Ravenswood OSP and Baylands Preserve). These areas provide movement pathways for a variety of animals, including some larger mammals capable of long-distance movements, such as black-tailed jackrabbits, coyotes (*Canis latrans*), and gray foxes (*Urocyon cinereoargenteus*). Vegetative cover for larger mammals, such as dense shrubs or tall herbaceous vegetation, is sparse along these movement pathways. Although jackrabbits may find enough cover to reside in such areas, gray foxes and coyotes are expected to occur along the northern and eastern edges of the Specific Plan area primarily during relatively quick, longer-distance movements between higher-quality habitat patches outside the Specific Plan area.

The wetlands along the edge of the San Francisco Bay comprise one of the most important coastal wintering and migratory stopover foraging habitats for Pacific Flyway shorebirds and waterfowl, most of which do not breed in the Bay but which use it during migration and in winter for feeding and resting. The San Francisco Bay supports higher proportions of the total wintering and migrating shorebirds on the U.S. Pacific coast than any other wetland (Western Hemisphere Shorebird Reserve Network 2009). Hundreds of thousands of shorebirds and approximately 25 species of waterfowl making their way south from the Arctic, Alaska, and western Canada pass through the region in the fall. The Western Hemisphere Shorebird Reserve Network has designated the San Francisco Bay Estuary as a site of "Hemispheric Importance" (its highest ranking), and the North American Waterfowl Management Plan has listed it as one of 34 waterfowl habitats of major concern in North America. The tidal salt marshes in and adjacent to the Specific Plan area (Ravenswood OSP and Baylands Preserve) are valuable resources for these migratory birds, and they are expected to be present in high abundance during winter and migration.

Migratory birds, including terrestrial species and waterbirds associated with the Bay, migrate along the edge of San Francisco Bay. For example, nocturnal migrant birds that find themselves over the Bay in the morning will seek roosting and foraging areas along the edge of the Bay. As a result, numbers of migrant birds moving through/past the Specific Plan area would be higher than expected based on the low quality of habitat currently present in the majority of its urbanized areas (see section 6.4.2 for further discussion).

4.4 Non-Native and Invasive Species

A number of nonnative invasive plant species occur in the Specific Plan area. Of these, perennial peppergrass (*Lepidium latifolium*), ice plant (*Carpobrotus edulis*), and yellow star-thistle (*Centaurea solstitialis*) have the potential to cause the most severe ecological impacts. In addition, fennel (*Foeniculum vulgare*), black mustard (*Brassica nigra*), and wild oats (*Avena fatua*) were observed in the Specific Plan area and can have substantial and apparent ecological impacts if they spread into native, sensitive habitats (Cal-IPC 2022). Non-native cordgrass, particularly smooth cordgrass (*Spartina alterniflora*), has invaded much of San Francisco Bay, and in many areas it has displaced the native California cordgrass (*Spartina foliosa*). Smooth cordgrass and/or hybrid smooth x California cordgrass is present in salt marsh along the eastern edge of the Specific Plan area (Rohmer and Kerr 2021). The remainder of the project vicinity is developed/landscaped, and invasive species would not result in adverse effects on developed and landscaped areas. All of these species are also present in abundance throughout the region and in areas surrounding the Specific Plan area.

In addition to nonnative plants, nonnative animals occur in the Specific Plan area. Nonnative animals such as house mice (*Mus musculus*), Norway rats, black rats, and feral cats can compete with and/or prey upon sensitive native animals. These nonnative animals occur most abundantly in and near developed, urban habitats where they obtain food from anthropogenic sources, though they can also reside in more natural habitats, such as salt marsh and grassland, where sufficient food is present.

Section 5. Special-Status Species and Sensitive Habitats

CEQA requires assessment of the effects of a project on species that are protected by state, federal, or local governments as “threatened, rare, or endangered;” such species are typically described as “special-status species.” For the purpose of the environmental review of projects proposed under the Amendment, special-status species have been defined as described below. Impacts on these species are regulated by some of the federal, state, and local laws and ordinances described in Section 3 above.

For purposes of this analysis, “special-status” plants are considered plant species that meet one or more of the following criteria:

- Listed under the Federal Endangered Species Act (FESA) as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under the California Endangered Species Act (CESA) as threatened, endangered, rare, or a candidate species.
- Listed by the CNPS as CRPR 1A, 1B, 2, 3, or 4.

For purposes of this analysis, “special-status” animals are considered animal species that meet one or more of the following criteria:

- Listed under FESA as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under CESA as threatened, endangered, or a candidate threatened or endangered species.
- Designated by the CDFW as a California species of special concern.
- Listed in the California Fish and Game Code as fully protected species (fully protected birds are provided in Section 3511, mammals in Section 4700, reptiles and amphibians in Section 5050, and fish in Section 5515).

Information concerning threatened, endangered, and other special-status species that potentially occur in the Specific Plan area was collected from several sources and reviewed by H. T. Harvey & Associates biologists as described in Section 2.1 above. Figure 5 depicts CNDDDB records of special-status plant species in the general vicinity of the Specific Plan area and Figure 6 depicts CNDDDB records of special-status animal species. These generalized maps show areas where special-status species are known to occur or have occurred historically.



Figure 6. CNDDB-Mapped Records of Special-Status Animals

5.1 Special-Status Plant Species

A search of all CRPR rank 1, 2, 3, and 4 species identified a number of special-status plant species as having potential to occur within the Specific Plan area vicinity. However, the Specific Plan area and surrounding areas are dominated by heavily disturbed anthropogenic land uses (i.e., developed/landscaped areas), which preclude the presence of most special-status plant species that occur in more natural habitats in the region. The 2012 EIR identified four species that could potentially occur within the Specific Plan area. Their historical CNDDDB occurrence locations are shown on Figure 5. Although three of these species – alkali milk vetch (*Astragalus tener* var. *tener*), Point Reyes bird's beak (*Cordylanthus maritimus* ssp. *palustris*), and California seablite (*Suaeda californica*) – occur in habitats that are present in the Specific Plan area, these species have not been recorded in the project vicinity for decades. While alkali milk vetch and Point Reyes bird's beak cannot be ruled out as potentially occurring (no focused surveys for these species have been conducted in suitable habitat in the Specific Plan area), we consider California seablite to be extirpated from the region; all known remaining populations except one are restoration populations, the locations of all remaining populations are well known, and the species requires active tidal action to colonize previously unknown sites and persist. Due to the absence of high-quality habitat and the lack of any known populations from the vicinity, California seablite is considered absent from the Specific Plan area.

Only one species, Congdon's tarplant, has a high potential for occurrence in the Specific Plan area. Congdon's tarplant is a CNPS List 1B.2 plant, with no FESA or CESA status. Congdon's tarplant is known from eight central California coastal counties, including San Mateo County. The species occurs in alkaline soils in valley and foothill grasslands, typically in sumps and disturbed sites where water collects. Congdon's tarplant is often associated with nonnative grassland species, including mustard (*Brassica* spp.) and star-thistle (*Centaurea* spp.). A small population of Congdon's tarplant was reported within the Specific Plan area in 2001. Seventeen plants were observed in the Specific Plan area within upland habitat located approximately behind the address of 2888 Illinois Street. Focused rare plant surveys in 2018 and 2019, however, failed to detect any individual Congdon's tarplants in this location. Instead, the population was observed to consist solely of the very similar common spikeweed (*Centromadia pungens* ssp. *pungens*) (H. T. Harvey & Associates 2019). Nevertheless, suitable habitat is present in this location and similar upland nonnative grasslands near the eastern margin of the Specific Plan area, and this species may occur in these habitats. Additionally, the species may occur in ruderal/barren habitats throughout the Specific Plan area.

All other special-status plant species identified as potentially occurring in the region were determined to be absent from the Specific Plan area for at least one of the following reasons: (1) absence of suitable habitat types; (2) lack of specific microhabitat or edaphic requirements, such as serpentine soils; (3) the elevation range of the species is outside of the range in the Specific Plan area; and/or (4) the species is considered extirpated from the project region.

5.2 Special-Status Animal Species

The 2012 EIR concluded that 10 special-status animal species could potentially occur in the Specific Plan area: the burrowing owl (*Athene cunicularia*), western snowy plover (*Charadrius nivosus nivosus*), San Francisco common yellowthroat (*Geothlypis trichas sinuosa*)², Alameda song sparrow (*Melospiza melodia pusillula*), California black rail (*Laterallus jamaicensis coturniculus*), California Ridgway's rail (*Rallus obsoletus obsoletus*)³, California least tern (*Sternula antillarum browni*), pallid bat (*Antrozous pallidus*), salt marsh harvest mouse (*Reithrodontomys raviventris*), and salt marsh wandering shrew (*Sorex vagrans halicoetes*). We address these 10 species below in Table 1 along with several additional special-status animal species that we have evaluated for potential occurrence in the Specific Plan area and vicinity. Table 1 provides the current listing status, species description, and potential for occurrence in the Specific Plan area.

A number of special-status bird and mammal species can occasionally occur in the Specific Plan area as nonbreeding foragers, but they do not breed or occur in large numbers in the Specific Plan area. These are the California least tern, loggerhead shrike (*Lanius ludovicianus*), tricolored blackbird, pallid bat, Townsend's big-eared bat (*Corynorhinus townsendii*), and western red bat (*Lasiurus blossevillii*). The monarch butterfly could potentially breed in the Specific Plan area if its larval hostplant milkweed (*Asclepias* spp.) is present, though it likely occurs primarily as an uncommon migrant. Similarly, there is a low probability that the Crotch's bumble bee breeds in the Specific Plan area, and it likely occurs only as a forager if it is present at all. The green sturgeon, longfin smelt, and Central California coast steelhead may occur as occasional foragers, migrants, or transients in the unnamed tidal slough east of the Specific Plan area in Ravenswood OSP. None of these species is expected to breed in or regularly use habitats in or near areas slated for development within the Specific Plan area, and the areas where development could potentially occur in the Specific Plan area do not provide important habitat for these species.

The western snowy plover, California Ridgway's rail, California black rail, salt marsh harvest mouse, salt marsh wandering shrew, Alameda song sparrow, San Francisco common yellowthroat, Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*), burrowing owl, northern harrier (*Circus hudsonius*), and white-tailed kite (*Elanus leucurus*) are addressed in greater detail in this report because these species can potentially breed or occur in or immediately adjacent to the Specific Plan area and/or they may be significantly impacted by projects within the Specific Plan area (see Section 6 *Impacts and Mitigation Measures* below).

² Formerly known as the saltmarsh common yellowthroat

³ Formerly known as the California clapper rail (*Rallus longirostris obsoletus*)

Table 1. Special-Status Animal Species, Their Status, and Potential Occurrence On or Adjacent to the Project Site

Name	*Status	Habitat	Potential for Occurrence in Specific Plan Area
Federal or State Endangered, Threatened, or Candidate Species			
Crotch's bumble bee (<i>Bombus crotchii</i>)	SC	Open grassland and scrub habitats with abundant flowers providing nectar and pollen and with subterranean nest sites (such as animal burrows).	Low (Likely Absent as Breeder). Although this species has been recently recorded as close to the site as the Palo Alto Baylands, 1.7 miles to the southeast of the Specific Plan area (Bumble Bee Watch 2023, iNaturalist 2023), habitat quality in the Specific Plan area is low due to the absence of extensive, high-quality floral resources and the developed or wetland nature of most of the area, thus minimizing potential for nesting. Therefore, there is a low probability that the species breeds in the Specific Plan area. If it does so, it would breed only in very low numbers. More likely, the species occurs only as a forager if it is present at all.
Monarch butterfly (<i>Danaus plexippus</i>)	FC	Requires milkweed (<i>Asclepias</i> spp.) for egg-laying and larval development, but adults obtain nectar from a wide variety of flowering plants in many habitats. Individuals congregate in winter roosts, primarily in Mexico and in widely scattered locations on the central and southern California coast.	Moderate (May be Present as Scarce Breeder). In 2012, the monarch butterfly had no listing or legal designation as a special-status species, and this species was not discussed in the 2012 EIR. On December 14, 2020, the USFWS announced that listing the monarch butterfly as endangered or threatened under FESA was warranted, but precluded by higher priority listing actions. Thus, the monarch butterfly is now a candidate species under FESA, and the USFWS will review its status annually until a listing decision is made. The monarch butterfly occurs within the Specific Plan area vicinity primarily as a migrant, though small numbers breed in some parts of the South Bay. No current or historical overwintering concentrations are known in San Mateo County, and no larval host plants (<i>Asclepias</i> spp.) were observed in the Specific Plan area during the July, 2022 reconnaissance surveys. Small numbers of adults may nectar within the Specific Plan area, especially during spring and fall migration, and a very small number of individuals may breed in the Specific Plan area if milkweed (including milkweed planted in residential areas) is present.

Name	*Status	Habitat	Potential for Occurrence in Specific Plan Area
Green sturgeon (<i>Acipenser medirostris</i>)	FT, CSSC	Spawns in large river systems such as the Sacramento River; forages in nearshore oceanic waters, bays, and estuaries.	Absent (May be Present in Adjacent Areas). No suitable habitat is present in or immediately adjacent to the majority of the Specific Plan area, as the tidal sloughs are too narrow and shallow to provide suitable foraging habitat for this species. Designated critical habitat is present within the Specific Plan area in an unnamed tidal slough adjacent to the Specific Plan area where this tidal slough parallels the eastern boundary.
Longfin smelt (<i>Spirinchus thaleichthys</i>)	FP, ST	Spawns in fresh water in the upper end of the Bay; occurs year-round in the South Bay.	Absent (May be Present in Adjacent Areas). No suitable habitat is present in the Specific Plan area itself. This species may occasionally forage within an unnamed tidal slough adjacent to the Specific Plan area, albeit infrequently and in low numbers (if at all) given the shallow and narrow nature of aquatic habitat within the slough.
Central California Coast steelhead (<i>Oncorhynchus mykiss</i>)	FT	Cool streams with suitable spawning habitat and conditions allowing migration between spawning and marine habitats.	Absent (May be Present in Adjacent Areas). No suitable habitat is present in the Specific Plan area itself. Individuals of this species may be present as occasional foragers in an unnamed tidal slough adjacent to the Specific Plan area during high tides, and designated critical habitat is present in that slough.
Northwestern pond turtle (<i>Actinemys marmorata</i>)	FP, CSSC	Permanent or nearly permanent water in a variety of habitats.	Absent. There are a number of CNDDDB (2022) records of the species from San Mateo County, all from the western part of the County, with the closest record of the species from San Francisquito Creek, near Stanford University, approximately 4 mi southwest of the Specific Plan area. Major roads, highways, and developed areas create impassable barriers to dispersal of this species from known locations found west of the Specific Plan area. In addition, no suitable aquatic habitat is present within the Specific Plan area. Aquatic habitats that are found within and adjacent to the Specific Plan area are too brackish for the species to persist in the Specific Plan area vicinity. Determined to be absent.

Name	*Status	Habitat	Potential for Occurrence in Specific Plan Area
Western snowy plover (<i>Charadrius nivosus nivosus</i>)	FT, CSSC	Sandy beaches on marine and estuarine shores and salt pannes in Bay saline managed ponds.	Absent (Present in Adjacent Areas). The 2012 EIR determined that this species had a moderate potential to occur in the Specific Plan area due to known occurrences at San Francisco Creek. However, no suitable habitat for this species is present in the Specific Plan area itself. Rather, the species could potentially occur in Pond SF 2 at the Ravenswood Complex of the Don Edwards National Wildlife Refuge, in salt pannes immediately north of the Specific Plan area (CNDDDB 2022). Thus, the species may nest close enough to the Specific Plan area to be affected by Specific Plan activities.
California black rail (<i>Laterallus jamaicensis coturniculus</i>)	ST, SP	Breeds in fresh, brackish, and tidal salt marsh.	Moderate (May be Present as Breeder). The 2012 EIR determined that California black rail has a high potential to occur in the Specific Plan area. Few black rails have been observed in marshes on the east side of the San Francisco peninsula, and most recent records are from the nonbreeding season (CNDDDB 2022). Nevertheless, ostensibly suitable foraging and breeding habitat occurs within tidal marshes in the Specific Plan area, and this secretive species may breed in small numbers in these marshes.
California Ridgway's rail (<i>Rallus obsoletus obsoletus</i>)	FE, SE, SP	Salt marsh habitat dominated by pickleweed (<i>Salicornia</i> spp.) and cordgrass (<i>Spartina</i> spp.).	High (May be Present as Breeder). The 2012 EIR determined that the California Ridgway's rail has a high potential to occur in the Specific Plan area. Breeding season records of California Ridgway's rail are present throughout the tidal marshes adjacent to the Specific Plan area (CNDDDB 2022, Cornell Lab of Ornithology 2022), and this species was observed foraging in tidal channels in the northeast portion of the Specific Plan area in 2020 by H. T. Harvey & Associates ecologists. Suitable foraging habitat is present in the tidal marshes in the northeast portion of the Specific Plan area, and there is at least a low potential for the species to nest in the Specific Plan area, though nesting habitat is of much higher quality in mature tidal marshes immediately to the east.

Name	*Status	Habitat	Potential for Occurrence in Specific Plan Area
California least tern (<i>Sternula antillarum browni</i>)	FE, SE, SP	Nests along the coast on bare or sparsely vegetated, flat substrates. In the South Bay, nests in salt pannes and on an old airport runway. Forages for fish in open waters.	Low (Absent as Breeder). Least terns were known to nest at salt evaporation ponds approximately 1.5 mi to the west of the Specific Plan area from 1975–1976 and at Outer Bair Island approximately 5 mi to the northwest in some years from 1969–1982 (CNDDDB 2022), but they are no longer known to nest at these locations. The species has never been recorded in the Specific Plan area itself (Cornell Lab of Ornithology 2022, CNDDDB 2022). Least terns forage primarily in managed ponds and over the open San Francisco Bay and have not been observed foraging in narrow tidal sloughs (such as the unnamed tidal slough adjacent to the eastern boundary of the Specific Plan area at Ravenswood OSP). Least terns are not known or expected to nest or forage in or adjacent to the Specific Plan area.
Tricolored blackbird (<i>Agelaius tricolor</i>)	ST	Nests near fresh water in dense emergent vegetation.	Low (Absent as Breeder). Tricolored blackbirds typically nest in extensive stands of tall emergent herbaceous vegetation in nontidal freshwater marshes and ponds, which are not present on or immediately adjacent to the Specific Plan area. This species is not known to nest in tidal habitats in Santa Clara and San Mateo County, and has not been recorded nesting on or near the Specific Plan area (CNDDDB 2022, Cornell Lab of Ornithology 2022). However, small numbers of tricolored blackbirds may forage in the Specific Plan area (e.g., in grasslands and marsh habitats) during the nonbreeding season.
Salt marsh harvest mouse (<i>Reithrodontomys raviventris</i>)	FE, SE, SP	Salt marsh habitat dominated by common pickleweed or alkali bulrush; recent studies have indicated that the species also utilizes brackish marshes, non-tidal managed wetlands, and some adjacent upland habitats (Smith 2019).	High. The species is known to occur in tidal marshes in and adjacent to the Specific Plan area (CNDDDB 2022, Shellhammer 2005). Suitable salt marsh habitat occurs in the northeastern portion of the Specific Plan area, adjacent to the eastern boundary of the Specific Plan area in the Ravenswood OSP. Suitable habitat is also present along the tidal slough east of the Specific Plan area. Salt marsh harvest mice may also forage in upland grasslands immediately adjacent to marsh habitats, and may take refuge in these habitats during high tides.

California Species of Special Concern

Burrowing owl (<i>Athene cunicularia</i>)	CSSC	Nests and roosts in open grasslands and ruderal habitats with suitable burrows, usually those made by California ground squirrels (<i>Otospermophilus beecheyi</i>).	Low (Absent as Breeder). No records of breeding burrowing owls are known within or surrounding the Specific Plan area (CNDDDB 2022, Cornell Lab of Ornithology 2022). While ostensibly suitable burrowing owl roosting or nesting habitat (i.e., open grasslands and ruderal habitats with ground squirrel burrows) is present in the Specific Plan area, the species is not expected to nest here due to lack of breeding records for this heavily monitored species. Although occasional migrant burrowing owls could forage and/or overwinter within the Specific Plan area, they are expected to do so only infrequently and in small numbers, if at all.
San Francisco common yellowthroat (<i>Geothlypis trichas sinuosa</i>)	CSSC	Nests in herbaceous vegetation, usually in wetlands or moist floodplains.	High (Present as Breeder). Common yellowthroats occur year-round in the marshes within and surrounding the Specific Plan area (Cornell Lab of Ornithology 2022). Suitable nesting and foraging habitat is present along the unnamed tidal slough just outside the eastern boundary of the Specific Plan area. This species may nest within the Specific Plan area, or close enough to the Specific Plan area to be affected by the project.
Alameda song sparrow (<i>Melospiza melodia pusillula</i>)	CSSC	Nests in salt marsh, primarily in marsh gumplant and cordgrass along channels.	High (Present as Breeder). Suitable salt marsh nesting habitat is present in the northern portion of the Specific Plan area. The subspecies is known to breed in the Ravenswood OSP, immediately east of the Specific Plan area, and suitable nesting habitat is present along the unnamed tidal slough east of the Specific Plan area.
Bryant's savannah sparrow (<i>Passerculus sandwichensis alaudinus</i>)	CSSC	Nests in pickleweed dominant salt marsh and adjacent ruderal habitat.	High (May be Present as Breeder). This special-status subspecies was not addressed in the 2012 EIR. In the South San Francisco Bay, Bryant's savannah sparrows nest primarily in short pickleweed-dominated portions of diked/muted tidal salt marsh habitat and in adjacent ruderal habitats (Rottenborn 2007). Suitable nesting habitat occurs in the tidal marshes and immediately adjacent grasslands in the northern portion of the Specific Plan area and in areas adjacent to the eastern boundary of the Specific Plan area in the Ravenswood OSP.

Northern harrier (<i>Circus hudsonius</i>)	CSSC (nesting)	Nests in marshes and moist fields with tall vegetation and sufficient moisture to inhibit accessibility of nest sites to predators. Forages over open areas.	High (May be Present as Breeder). This species, which is considered special-status only when breeding, was not addressed in the 2012 EIR. Northern harriers occur year-round in the marshes within and adjacent to the Specific Plan area (Cornell Lab of Ornithology, 2022). Suitable nesting habitat is present in the marshes in and adjacent to the eastern portion of the Specific Plan area.
Loggerhead shrike	CSSC (nesting)	Nests in tall shrubs and dense trees; forages in grasslands, marshes, and ruderal habitats.	Low (Absent as Breeder). This special-status species was not addressed in the 2012 EIR. Loggerhead shrikes occur occasionally in the Specific Plan area during the winter months, but due to declines in Bay Area breeding populations, they are not expected to nest there (Cornell Lab of Ornithology 2022). The species may, however, forage in grasslands and marshes the Specific Plan area during winter and migration.
Pallid bat (<i>Antrozous pallidus</i>)	CSSC	Forages over many habitats; roosts in caves, rock outcrops, buildings, and hollow trees.	Low (Absent as Breeder). Historically, pallid bats were likely present in a number of locations throughout the Specific Plan region, but their populations have declined in recent decades, and the species has been extirpated as a breeder from urban areas close to the Bay. Individuals from more remote colonies could potentially forage in the study area in open habitats on rare occasions, but the species is not expected to roost in the Specific Plan area.
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	CSSC	Roosts in caves and mine tunnels, and occasionally in deep crevices in trees such as redwoods or in abandoned buildings, in a variety of habitats. Forages in edge habitats along streams and adjacent to and in a variety of woodland habitats.	Low (Absent as Breeder). This special-status species was not addressed in the 2012 EIR. No known extant populations of the Townsend's big-eared bat occur in the vicinity of the Specific Plan area, and there is a low probability that the species occurs in the Specific Plan vicinity at all due to urbanization. Individuals from more remote colonies could potentially forage in the study area over open habitats on rare occasions, but the species is not expected to roost in the Specific Plan area.
Western red bat <i>Lasiurus blossevillii</i>	CSSC	Roosts in foliage in forest or woodlands, especially in or near riparian habitat.	Low (Absent as Breeder). This special-status species was not addressed in the 2012 EIR. Individual western red bats occur in the project vicinity in low numbers as migrants and winter residents, but this species does not breed in the project vicinity. They may roost in the foliage of trees virtually anywhere in the vicinity, but are expected to roost primarily in riparian habitats, which are absent from the Specific Plan area. Occasional individuals may forage over the Specific Plan area year-round.

Salt marsh wandering shrew (<i>Sorex vagrans halicoetes</i>)	CSSC	Medium to high marsh 6 to 8 ft above sea level with abundant driftwood and common pickleweed.	Moderate. This species is known in the Specific Plan area vicinity from a record at Ravenswood Point, approximately 1 mi north of the Specific Plan area (CNDDB 2022). Suitable pickleweed-dominated salt marsh habitat occurs in the northeastern portion of the Specific Plan area.
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State Fully Protected Species

White-tailed kite (<i>Elanus leucurus</i>)	SP	Nests in tall shrubs and trees; forages in grasslands, marshes, and ruderal habitats.	High (May be Present as Breeder). This special-status species was not addressed in the 2012 EIR. White-tailed kites are known to nest in eastern San Mateo and Santa Clara Counties throughout the open areas bordering the San Francisco Bay (Sequoia Audubon Society 2001, Cornell Lab of Ornithology 2022). Large trees in and adjacent to the Specific Plan area provide suitable nesting habitat for white-tailed kites, and open areas along the Specific Plan area’s urban margin provide foraging habitat for this species.
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Key to Abbreviations:

Status: Federally Endangered (FE); Federally Threatened (FT); Federally Proposed (FP); Federal Candidate (FC); State Endangered (SE); State Threatened (ST); State Candidate (SC); State Fully Protected (SP); California Species of Special Concern (CSSC).

5.3 Sensitive Natural Communities, Habitats, and Vegetation Alliances

Sensitive and regulated habitats are rare, ecologically valuable, and/or protected by federal, state, regional, and/or local laws. Generally, such habitats require permits from regulatory agencies if they are to be disturbed, altered, or lost. The CDFW ranks certain rare or threatened plant communities, such as wetlands, tracked in the CNDDDB. The most commonly regulated habitats are wetland and aquatic habitats including rivers, streams, ponds, and seasonal wetlands, which fall under the jurisdiction of the USACE via Section 404 of the CWA, the RWQCB via Section 401 of the CWA and the Porter-Cologne Water Quality Control Act, and/or the CDFW via Section 1602 of the California Fish and Game Code.

Natural communities have been considered part of the Natural Heritage Conservation triad, along with plants and animals of conservation significance since the state inception of the Natural Heritage Program in 1979. The CDFW determines the level of rarity and imperilment of vegetation types and tracks sensitive communities in its Rarefind database (CNDDDB 2022). Global rankings (G) of natural communities reflect the overall condition (rarity and endangerment) of a habitat throughout its range, whereas state (S) rankings reflect the condition of a habitat within California. Natural communities are defined using NatureServe's standard heritage program methodology as follows (Faber-Langendoen et al. 2012):

G1/S1: Critically imperiled

G2/S2: Imperiled

G3/S3: Vulnerable.

G4/S4: Apparently secure

G5/S4: Secure

In addition to tracking sensitive natural communities, the CDFW also ranks vegetation alliances, defined by repeating patterns of plants across a landscape that reflect climate, soil, water, disturbance, and other environmental factors (Sawyer et al. 2009). If an alliance is marked G1-G3, all of the vegetation associations within it will also be of high priority (CDFW 2022). The CDFW provides the Vegetation Classification and Mapping Program's (VegCAMP) currently accepted list of vegetation alliances and associations (CDFW 2022).

Impacts on CDFW sensitive natural communities, vegetation alliances/associations, or any such community identified in local or regional plans, policies, and regulations, must be considered and evaluated under CEQA (Title 14, Division 6, Chapter 3, Appendix G of the California Code of Regulations). Furthermore, aquatic, wetland and riparian habitats are also protected under applicable federal, state, or local regulations, and are generally subject to regulation, protection, or consideration by the USACE, RWQCB, CDFW, and/or the USFWS.

5.3.1 CDFW Sensitive Habitats

A query of sensitive habitats in the CNDDDB (2022) identified two sensitive natural communities as occurring within the nine 7.5-minute USGS quadrangles containing or surrounding the Specific Plan area: (1) northern coastal salt marsh (Rank G3/S3.2 and (2) valley oak woodland (Rank G3/S2.1). Northern coastal salt marsh is characterized by Holland (1986) as occurring along sheltered inland margins of bays, often co-dominated by pickleweed (*Salicornia* spp.), cordgrass, and sometimes saltgrass. This habitat type is present within areas mapped as salt marsh/open water/tidal slough in Figure 4. While individual valley oaks may be present in the Specific Plan area, the valley oak woodland habitat type is absent from the Specific Plan area due to extensive urbanization.

5.3.2 CDFW Sensitive Vegetation Alliances

The tidal marsh habitat present in the Specific Plan area is dominated by pickleweed and would therefore be characterized as *Sarcocornia pacifica* (*Salicornia depressa*) Herbaceous Alliance (Sawyer et al. 2009). This alliance is ranked as G4/S3, meaning that it is globally secure, but considered vulnerable on a state-wide level, and this alliance is included on CDFW's list of sensitive natural communities (as northern coastal salt marsh, discussed above) (CDFW 2022).

5.3.3 CDFW Riparian Habitat

Section 1602 of the Fish and Game Code establishes jurisdiction over the bed, channel, or bank of any river, stream, or lake. CDFW riparian jurisdiction ends at the outer extent of riparian tree or shrub canopy. No rivers, streams, or lakes regulated by CDFW are present in the Specific Plan area. Further, because the tidal sloughs in the Specific Plan area do not receive hydrology from freshwater streams or creeks, they would not be expected to fall under the jurisdiction of CDFW as sensitive riparian habitat.

5.3.4 Sensitive Habitats (Waters of the U.S./State)

As described in Sections 3.1 and 3.2, the salt marsh, open water, and tidal slough habitats found in the northeast and northwest portions of the Specific Plan area (Figure 4), would be considered waters of the U.S. and waters of the state under USACE and RWQCB jurisdiction.

Section 6. Impacts and Mitigation Measures

CEQA and the state CEQA Guidelines provide direction for evaluating impacts of projects on biological resources and determining which impacts will be significant. The Act defines a “significant effect on the environment” as “a substantial adverse change in the physical conditions which exist in the area affected by the proposed project.” Under state CEQA Guidelines Section 15065, a project’s effects on biological resources are deemed significant where the project would:

- “substantially reduce the habitat of a fish or wildlife species”
- “cause a fish or wildlife population to drop below self-sustaining levels”
- “threaten to eliminate a plant or animal community”
- “reduce the number or restrict the range of a rare or endangered plant or animal”

In addition to the Section 15065 criteria that trigger mandatory findings of significance, Appendix G of the State CEQA Guidelines provides a checklist of other potential impacts to consider when analyzing the significance of project effects. The impacts listed in Appendix G may or may not be significant, depending on the level of the impact. For biological resources, these impacts include whether the project would:

- A. “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”
- B. “have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service”
- C. “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”
- D. “interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites”
- E. “conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance”
- F. “conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan”

Following is an assessment of potential impacts of Specific Plan activities on biological resources. The impact assessment below is structured based on the six significance criteria (A–F) listed above. To the extent that the

impact assessment performed in 2012 is appropriate, we have included relevant text from the 2012 EIR. Where additional detail or discussion is necessary, we have revised or augmented text from the 2012 EIR.

6.1 Impacts on Special-Status Species: 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 CDFW or USFWS (Less than Significant with Mitigation)

6.1.1 Impacts on Special-Status Plants (Less than Significant with Mitigation)

As discussed in Section 5.1, suitable habitat and one CNDDDB occurrence for Congdon's tarplant are present in the Specific Plan area, but focused surveys for the species within upland habitat located approximately behind the address of 2888 Illinois Street (location of the CNDDDB occurrence) found no individuals of the species. Instead, these surveys detected numerous individuals of a similar species in the *Centromadia* genus, common spikeweed. Nevertheless, suitable habitat for this species is present in the Specific Plan area, and it may occur in transitional upland grassland or ruderal/barren habitats in the Specific Plan area. Alkali milk vetch and Point Reyes bird's beak are unlikely to be present, but they have at least a low potential to occur in the tidal marsh habitats in the eastern portions of the Specific Plan area.

Specific Plan activities may affect Congdon's tarplant, alkali milk vetch, and Point Reyes bird's beak due to disturbance or destruction of individuals and suitable habitat. Direct impacts could include grading or filling areas supporting these species, trampling or crushing of plants, and soil compaction. Indirect impacts could include mobilization of dust onto plants, which can affect their photosynthesis and respiration, or changes to hydrology supporting these plants due to grading or construction in nearby habitats. Although shading of special-status plants by new buildings constructed in adjacent areas could adversely affect the health of such plants, it is unlikely that special-status plants will be lost due to shading unless the plants are surrounded on two or more sides by new shading. For example, if special-status plants were to occur in tidal marsh along the eastern edge of the Specific Plan area, and shading occurred only from buildings constructed to the west, these plants are expected to continue to receive enough light to persist without being substantially impacted. Impacts to a very small proportion of the population of these species (10% or less of the population present in the Specific Plan area) would not be considered a significant impact given natural fluctuations in these species' populations and their ability to colonize new, unimpacted habitat. Implementation of Mitigation Measures (MM) BIO-1 through BIO-3 will reduce impacts on special-status plants to a less-than-significant level. These measures have been updated and expanded to provide more detail than presented in the 2012 EIR.

Mitigation Measure BIO-1. Pre-Activity Surveys for Special-Status Plants. Prior to initial ground disturbance for Specific Plan-related projects in salt marsh, tidal slough, and grassland/ruderal habitats, a qualified plant ecologist will conduct an appropriately-timed survey for Congdon's tarplant, Alkali milk vetch, and Point Reyes bird's beak within the project footprint and a 50-ft buffer around the project footprint (to the extent access permits). This buffer may be increased by the qualified plant ecologist depending on site-specific

conditions and activities planned in the areas, but must be at least 50 ft wide. Situations for which a greater buffer may be required include proximity to proposed activities expected to generate large volumes of dust, such as grading; potential for project activities to alter hydrology supporting habitat for the species; or proximity to proposed structures that may shade areas farther than 50 ft away. Surveys should be conducted in a year with near-average or above-average precipitation; surveys conducted in a year of below-average rainfall would be considered valid if examination of reference populations of the target species indicate that the species would be detectable if present. The purpose of the survey will be to assess the presence or absence of special-status plants, including Congdon's tarplant, alkali milk vetch, and Point Reyes bird's beak. If the target species are not found in the impact area or the identified buffer, then no further mitigation will be warranted. If the target species, or any other special-status plants are found in the impact area or identified buffers, then MM BIO-2 and BIO-3 will be implemented.

Mitigation Measure BIO-2. Special-Status Plant Avoidance Buffers. To the extent feasible, and in consultation with a qualified plant ecologist, the project proponent will design and construct the proposed project to completely avoid impacts on all populations of special-status plants within the project footprints or within the identified buffers of the impact areas. Avoided special-status plant populations will be protected by establishing and observing the identified buffer between plant populations and the impact area. All such populations located in the impact area or the identified buffer, and their associated designated avoidance areas, will be clearly depicted on any construction plans. In addition, prior to initial ground disturbance or vegetation removal, the limits of the identified buffer around special-status plants to be avoided will be marked in the field (e.g., with flagging, fencing, paint, or other means appropriate for the site in question). This marking will be maintained intact and in good condition throughout project-related construction activities.

If complete avoidance is not feasible and more than 10% of a population (by occupied area or individuals) would be impacted as determined by a qualified plant ecologist, MM BIO-3 will be implemented.

Mitigation Measure BIO-3. Preserve and Manage Mitigation Populations of Special-Status Plants. If avoidance of special-status plants is not feasible and more than 10% of the population would be impacted, compensatory mitigation will be provided via the preservation, enhancement, and management of occupied habitat for the species, or the creation and management of a new population. To compensate for impacts on special-status plants, 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 impacted, and at least one occupied ac preserved for each occupied ac affected), for any impact over the 10% significance threshold. Alternately, seed from the population to be impacted may be harvested and used either to expand an existing population (by a similar number/occupied area to compensate for impacts to special-status plants beyond the 10% significance threshold) or establish an entirely new population in suitable habitat.

Areas proposed to be preserved as compensatory mitigation for impacts to special-status plants must contain verified extant populations of the species, or in the event that enhancement of existing populations or establishment of a new population is selected, the area must contain suitable habitat for the species as identified by a qualified plant ecologist. Mitigation areas will be managed in perpetuity to encourage persistence and even

expansion of this species. Mitigation lands cannot be located on land that is currently held publicly for resource protection unless substantial enhancement of habitat quality will be achieved by the mitigation activities. The mitigation habitat will be of equal or greater habitat quality compared to the impacted areas, as determined by a qualified plant ecologist, in terms of soil features, extent of disturbance, vegetation structure, and dominant species composition, and will contain at least as many individuals of the species as are impacted by project activities. The permanent protection and management of mitigation lands will be ensured through an appropriate mechanism, such as a conservation easement or fee title purchase.

A habitat mitigation and monitoring plan (HMMP) will be developed and implemented for the mitigation lands. That plan will include, at a minimum, the following information:

- a summary of habitat impacts and the proposed mitigation;
- a description of the location and boundaries of the mitigation site and description of existing site conditions;
- a 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 the species;
- a 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 the species;
- a 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 will include demonstration that any plant population fluctuations over the monitoring period of a minimum of 5 years for preserved populations and a minimum of 10 years for enhanced or established populations 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 (i.e., 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
- contingency measures for mitigation elements that do not meet performance criteria.

The HMMP will be prepared by a qualified plant or restoration ecologist. Approval of the HMMP by the City will be required before project impacts to this species occur.

6.1.2 Impacts on the Monarch Butterfly and Crotch's Bumble Bee (Less than Significant)

The monarch butterfly (a federal candidate species) and Crotch's bumble bee (a state candidate species) were not addressed in the 2012 EIR, as they were not considered special-status species at the time.

The monarch butterfly occurs in the project region primarily as a migrant, and no current or historical overwintering sites are known in the Specific Plan area, so no large nonbreeding aggregations would occur in

the Specific Plan area. Further, larval host plants (*Asclepias* spp.) were not observed within any of the undeveloped habitats of the Specific Plan area during the July 2022 reconnaissance surveys. If larval host plants are present in areas of proposed future development at all, they are very scarce.

Until recently, monarch butterflies were not known to breed in the Bay Area during the winter months, and would normally be expected to be present during winter only in coastal nonbreeding overwintering aggregations. James et al. (2021), however, documented breeding in several locations in the Specific Plan region (i.e. at the Rinconada Community Garden in Palo Alto) during the winter of 2020-2021. This breeding was facilitated by the use of nonnative, tropical milkweeds in landscape vegetation. Due to irrigation, these milkweeds persist during the winter months when native milkweeds in more natural, non-irrigated settings die back and are unavailable for oviposition. The implications of winter breeding by monarchs in the Specific Plan area are complex, and not fully understood. Nevertheless, because landscape vegetation in the Specific Plan area may include nonnative, tropical milkweeds, isolated breeding could occur in the Specific Plan area at any time of year. However, any individuals that breed in irrigated landscapes are not expected to be impacted by independent projects, as these likely occur primarily in residential gardens or other small landscape installations.

Native milkweeds are scarce in the Specific Plan area, and therefore, the loss of suitable habitat or larval hostplants would not result in a substantial impact to the regional availability of such habitat, hostplants, or monarch butterfly populations. Similarly, if any host plants containing monarch butterfly eggs, larvae, or pupae were to be impacted, they would represent such a small proportion of the regional population of monarchs that such impacts would not result in a substantial reduction in regional populations of monarchs. For these reasons, impacts on the monarch butterfly would be less than significant under CEQA.

Crotch's bumble bee is not known to occur in the Specific Plan area. Although it has been recorded in one location at the Palo Alto Baylands 1.7 mi to the southeast of the Specific Plan area (Bumble Bee Watch 2023, iNaturalist 2023), the next nearest recent occurrence was 4.7 miles from the Specific Plan area. Habitat quality in the Specific Plan area is low due to the absence of extensive, high-quality floral resources and the developed or wetland nature of most of the area, thus minimizing potential for nesting. Therefore, there is a low probability that the species breeds in the Specific Plan area, and if it does so, it would breed only in very low numbers. More likely, the species occurs only as a forager (e.g., possibly foraging on flowers along the eastern edge of the Specific Plan area) if it is present at all. In the unlikely event that any individuals were impacted by Specific Plan activities, they would represent such a small proportion of the regional population that such impacts would not result in a substantial reduction in regional populations of the species. For these reasons, impacts on the Crotch's bumble bee would be less than significant under CEQA.

6.1.3 Impacts on the Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew (Less than Significant with Mitigation)

As discussed in Chapter 4.4 of the 2012 EIR, the Specific Plan area contains suitable pickleweed habitat to support salt marsh harvest mouse and salt marsh wandering shrew populations. Specific Plan activities could result in impacts on these species due to loss of individuals or suitable habitat, which, due to the rarity of these

species, would constitute a significant impact. The following impact discussion and mitigation measures have been updated and expanded to provide more detail than presented in the 2012 EIR.

Since the certification of the 2012 EIR, our understanding of habitat use by salt marsh harvest mice has changed somewhat. While the salt marsh harvest mouse has been widely regarded as being restricted to pickleweed-dominated marshes of the San Francisco Bay, recent radio-tracking has demonstrated that the species also uses brackish marshes, nontidal managed wetlands, and some adjacent upland habitats as well (Smith 2019). The species also has a much broader diet than the pickleweed-focused diet previously assumed. When presented a variety of foods that were seasonally abundant, the diet of the salt marsh harvest mouse comprised 45 native and nonnative plant species along with a few invertebrates, with the two most commonly chosen plants being the nonnative rabbits foot grass (*Polygomon monspeliensis*) and fat hen (*Atriplex prostrata*) (Smith 2019). Thus, impacts to salt marsh harvest mice can occur not only if project activities occur in pickleweed dominated habitats, but also if those activities occur in immediately adjacent uplands providing suitable food sources.

Because salt marsh harvest mice are known to occur in tidal marshes adjacent to the Specific Plan area, and suitable habitat is present in the Specific Plan area in tidal marshes in the Specific Plan area as well, individuals may be present in tidal marsh habitats on project sites. In addition, small numbers of foraging salt marsh harvest mice, as well as individuals taking refuge during high tides, may be present in ruderal grasslands immediately adjacent to tidal marshes within project sites. Although the distribution and habitat associations of the salt marsh wandering shrew are poorly known, it is assumed that this species could potentially be present in the same areas used by salt marsh harvest mice.

In the absence of protective measures, direct impacts on the salt marsh harvest mouse and/or salt marsh wandering shrew could potentially occur as a result of grading and construction activities within these areas. Project activities may result in the injury or mortality of these species as a result of crushing by equipment, vehicle traffic, and worker foot traffic. Individuals that vacate an area because of increased levels of noise and disturbance may be exposed to increased competition from conspecifics already occupying the area to which they were displaced and increased levels of predation because of unfamiliarity with the new area or lack of sufficient cover. Project construction and the removal of salt marsh vegetation or immediately adjacent upland vegetation may also expose individual mice or shrews to predation, particularly if construction activities occur during king tides, when cover for these species is very limited.

Indirect impacts on habitat for the salt marsh harvest mouse and salt marsh wandering shrew may occur during the construction and post-construction phases of projects due to sediment runoff into adjacent marsh habitat. Adverse construction-phase impacts could occur as a result of run-off carrying sediment or pollutants into the marshes that could degrade water quality in aquatic and wetland habitats immediately adjacent to the site. However, such impacts will be avoided and minimized through compliance with the NPDES Construction General Permit, project stormwater pollution prevention plans (SWPPP), and the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (MRP) (See section 6.2.1 for further discussion of these permits). With implementation of measures required for compliance with the NPDES Construction General

Permit, SWPPP, and MRP, project impacts on the salt marsh harvest mouse and salt marsh wandering shrew due to degradation of water quality are less than significant.

Human food waste attracts and subsidizes the diets of certain urban-adapted “nuisance species”, such as the native American crow (*Corvus brachyrhynchos*) and raccoon and the nonnative Norway rat and black rat. These species are also predators of more sensitive native species, including the salt marsh harvest mouse and salt marsh wandering shrew. Increases in human food waste that is available to these nuisance species, which could potentially result from increased land uses and numbers of people on the Project site, may augment populations of nuisance species and exacerbate predation on sensitive species. In addition, human food waste at project sites could attract such predators to the site, and thus into areas in close proximity to salt marsh harvest mouse and salt marsh wandering shrew populations. Due to the rarity of these mammals, all these effects would result in a significant impact.

In the absence of protective measures, projects could impact the salt marsh harvest mouse and salt marsh wandering shrew by increasing the abundance and quality of hunting perches for avian predators such as common ravens (*Corvus corax*) and red-tailed hawks as new buildings, taller buildings, and associated landscaping are added; such features could provide perches from which avian predators could hunt small mammals and birds associated with the marsh habitats on and adjacent to the Specific Plan area. Although PG&E towers in the Ravenswood OSP marsh and other structures in the vicinity already provide predator perches, the new buildings would introduce more high perches, and in new areas, thus potentially increasing risk of predation of salt marsh harvest mice and salt marsh wandering shrews. Given the rarity of these species, any increase in predation as a result of the creation of raptor perches would be a significant impact.

Shading of salt marsh harvest mouse and salt marsh wandering shrew habitat by new buildings constructed in adjacent areas could adversely affect the health of vegetation. However, it is unlikely that such shading will result in a substantial impact to these species’ habitats. These mammals are associated with tidal marsh along the eastern edge of the Specific Plan area. Even if new buildings are constructed to the west, tidal marsh plants would still receive ample sunlight during much of the day that tidal marsh habitats would not be impacted substantially. In addition, increases in nighttime lighting resulting from the installation of new or higher-intensity lighting could impact these species by altering their behavior, causing them to avoid otherwise suitable habitat, or making these species more susceptible to predation (see Section 6.1.10 for more discussion of lighting impacts).

As described above in Section 1.1, a new Loop Road has been proposed to connect University Avenue to the terminus end of Demeter Street. The Loop Road would wrap around the northern and eastern perimeter of University Village (which is excluded from the Specific Plan area). Two configurations of the Loop Road are under consideration: one with minimal or no vehicle lanes, and one with an expanded two-lane “Loop Road” inserted. These two configurations are illustrated in Figure 3. Below we describe the proposed configurations of the Loop Road and the direct loss of habitat that would result from the construction of the road for both the salt marsh harvest mouse and salt marsh wandering shrew. Table 2 summarizes the impacted habitat acreages for each configuration. All direct and indirect impacts to both species, as described above, may occur

during the construction and post-construction of the Loop Road due to the close proximity of the Loop Road to potential habitat for these species.

No Loop Road Configuration

The “No Loop Road” configuration would have only a shared multiuse path for bicycles/pedestrians and the currently existing service lane with access for San Francisco Public Utilities Commission (SFPUC) infrastructure, located north of the Specific Plan area. The northern perimeter would be constructed within a 50-ft right-of-way between existing property lines of University Village residences (to the south) and into upland grassland and salt marsh habitats (to the north). The eastern perimeter configuration would consist simply of a 30-ft right-of-way area between the property lines of University Village residences (to the west) and salt marsh and upland grassland habitats (to the east). This would accommodate a shared multiuse trail for bicycles/pedestrians (on top of the proposed levee) and no travel lanes (i.e., no Loop Road). Cars, buses, trucks, and large shuttles would not be allowed in this configuration. In this configuration, construction would result in the direct loss of 1.17 ac of upland grassland and 0.69 ac of salt marsh habitats that may be used by both salt marsh harvest mice and salt marsh wandering shrews, as well as 1.90 ac of urban landscape that would not provide suitable habitat for these species.

With Loop Road Configuration

The “Loop Road” configuration would extend the right-of-way to 76 ft in the northern perimeter and 56 ft in the eastern perimeter and would include two travel lanes, along with a multiuse path and associated shoulders and buffers. This would result in the direct loss of 2.72 ac of upland grassland and 1.72 ac of salt marsh that provides potential habitat for salt marsh harvest mice and salt marsh wandering shrews, as well as 2.08 ac of urban landscape that would not provide suitable habitat for these species.

In both configurations, the construction of a flood-risk management levee structure, as part of the SAFER Bay project, is being considered, with a multiuse path constructed on top of the levee as shown in Figure 3. However, we are only reporting the direct loss of habitat acreage from the proposed construction of a multi-use path with and without the Loop Road – and not the construction of the levee – given that the levee would not be considered as part of the Specific Plan, and its construction would be analyzed separately. Habitat acreage impacts from the both proposed configurations are summarized in Table 2 and illustrated in Figure 7.

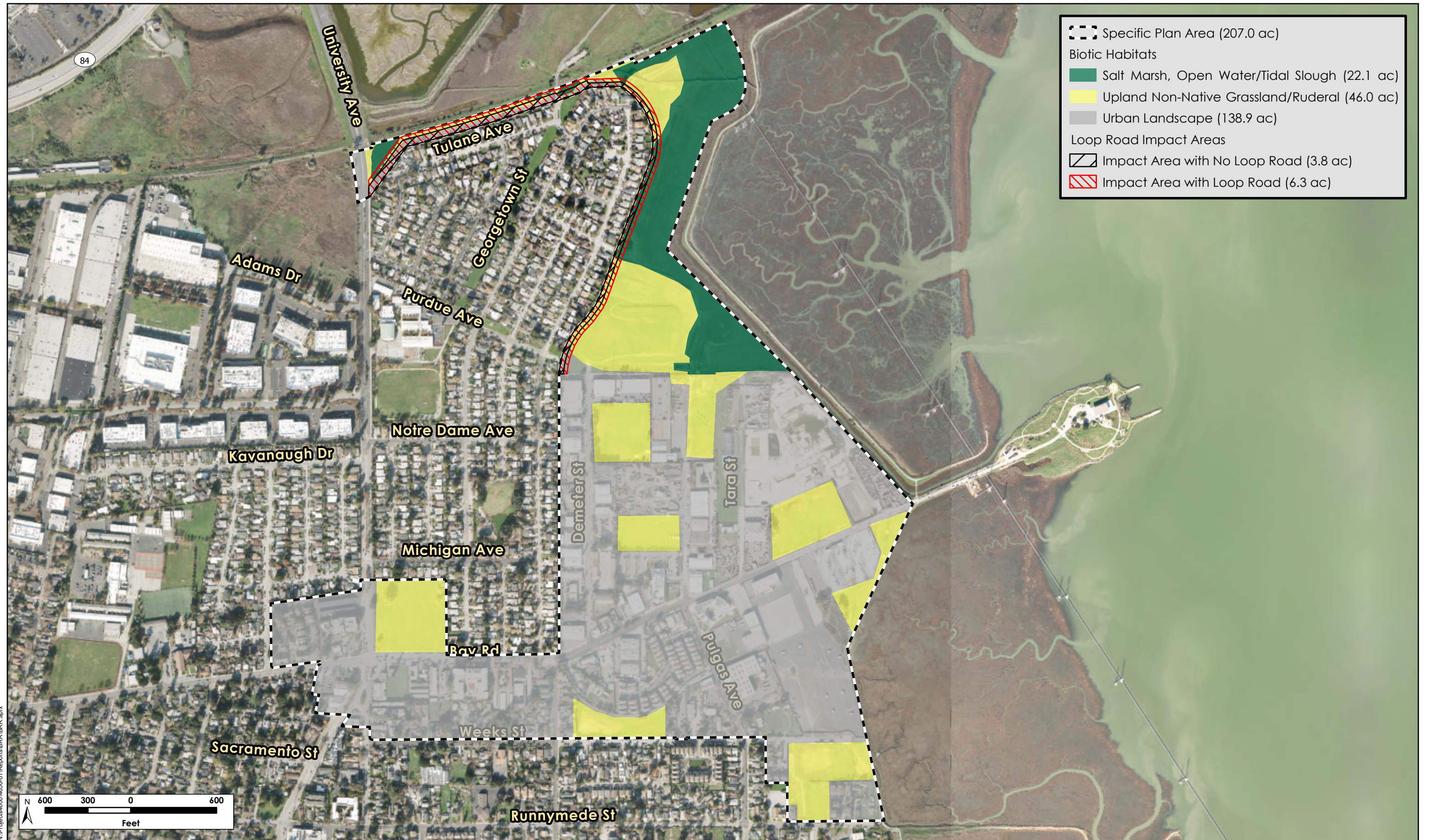


Figure 7. Proposed Loop Road Configuration Impact Areas

Ravenswood/4 Corners Specific Plan Update

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Table 2. Habitat Acreage Impacts from Construction with No Loop Road and With Loop Road (Proposed Configurations)

Proposed Configuration	Habitat	Impacted Acres
No Loop Road	Urban Landscape	1.90
	Upland: Nonnative Grassland / Ruderal	1.17
	Salt marsh, Open Water / Tidal Slough	0.69
With Loop Road	Urban Landscape	2.08
	Upland: Nonnative Grassland / Ruderal	2.72
	Salt marsh, Open Water / Tidal Slough	1.72

It is unknown at this time whether the proposed Loop Road (or multi-use paths) would be constructed prior to, after, or concurrently with the proposed levee. If the Loop Road is built after or concurrently with the construction of the levee, and it is located on the inward side of the levee, we would not expect the Loop Road to have any impacts on the habitat of these species, given that the levee construction itself would impact these habitats. The levee construction would not be considered as part of the Specific Plan and would be analyzed separately in its impact on jurisdictional salt marsh habitat. However, if the Loop Road is built prior to the construction of the levee, or there is no levee that is built, then the impacts as described here and below from the construction of the Loop Road would need to be considered.

Implementation of MM BIO-4 through BIO-11 will reduce impacts on salt marsh harvest mice and salt marsh wandering shrews to less-than-significant levels. These measures have been updated and expanded to provide more detail than presented in the 2012 EIR.

Mitigation Measure BIO-4. Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew Minimization Measures. Any development project within 100 ft of an area identified as salt marsh, open water, or tidal slough in Figure 4 shall be subject to a habitat assessment prepared by a qualified biologist. All habitats identified by the biologist as suitable habitat for the salt marsh harvest mouse or salt marsh wandering shrew shall be avoided for development and preserved in their existing state to the extent feasible. If avoidance of salt marsh habitats is infeasible, the following measures shall be implemented.

- Before any construction activities begin, a qualified biologist will conduct a training session for all construction personnel. At a minimum, the training will include descriptions of the salt marsh harvest mouse and salt marsh wandering shrew, their habitats, the laws protecting them, the general measures that are being implemented to conserve these species as they relate to the project, and the boundaries within which the project may be accomplished.
- To avoid the loss of individual harvest mice or shrews from any excavation, fill, or construction activities in suitable habitat, vegetation removal will be limited to the minimum amount necessary to permit the activity to occur. Wherever feasible, sufficient suitable habitat, as determined by a qualified biologist, will remain adjacent to the activity area to provide refugia for displaced individuals.

- Within areas where vegetation potentially supporting salt marsh harvest mice or salt marsh wandering shrews will be impacted, vegetation and debris that could provide cover for mice will be removed using only hand tools (which may include motorized equipment such as line trimmers if the vegetation removed is inspected by a qualified biologist and does not contain any salt marsh harvest mice or salt marsh wandering shrews) at least one week prior to the commencement of construction activities. Vegetation removal will occur under the supervision of a qualified biologist. This vegetation will be removed on a progressive basis, such that the advancing front of vegetation removal moves toward vegetation that would not be disturbed. If necessary, temporary shelter consisting of dead vegetation may be positioned to provide escape routes to suitable habitat. A qualified biologist will monitor the vegetation removal and make specific recommendations with respect to the rate of vegetation removal (to ensure that any harvest mice or shrews present are able to escape to cover that will not be impacted), and whether vegetation needs to remain in a certain area temporarily to facilitate dispersal of mice into habitat outside the impact area.
- All cut vegetation, except cut vegetation left in place as escape cover, will be removed daily from vegetation removal areas to prevent it from being used as refugia by salt marsh harvest mice
- If a salt marsh harvest mouse or salt marsh wandering shrew, or an animal that may be a salt marsh harvest mouse or salt marsh wandering shrew, is detected during vegetation removal or other project activities, all work that could impact the individual will cease until the animal has moved out of the impact area on its own. A qualified biologist will monitor the animal to ensure that it disperses out of the impact area. If the animal will not move on its own, the biologist will confer with the USFWS and CDFW to identify appropriate measures to avoid impacts to the animal. No salt marsh harvest mice or salt marsh wandering shrews will be handled (even for relocation) without prior approval from the USFWS and CDFW.
- Following the hand-removal of vegetation, exclusion fencing will be erected as needed between construction areas and harvest mouse/shrew habitat that is to remain unimpacted to define and isolate protected harvest mouse/shrew habitat. 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 ft (but no more than 4 ft) above the ground. All supports for the fencing will be placed on the inside of the work area. A minimum 2-ft buffer will be maintained free of vegetation around the outside of the exclusion fencing. The fencing will be inspected daily during construction, and any necessary repairs will be made within 24 hours of when they are found. If any breaks in the fencing are found, the qualified biologist will inspect the work area for salt marsh harvest mice and salt marsh wandering shrews.
- During construction, a qualified biologist will check underneath vehicles and equipment for salt marsh harvest mice and salt marsh wandering shrews before such equipment is moved, unless the equipment is surrounded by harvest mouse exclusion fencing.
- No animals (e.g., dogs or cats) will be brought to the project site by project personnel to avoid harassment, killing, or injuring of wildlife.

- The project site will be maintained trash-free, and food refuse will be contained in secure bins and removed daily during construction, to avoid attracting nuisance animals that may then prey on salt marsh harvest mice.
- Nighttime work will be avoided if feasible. If avoidance of night work is infeasible, all project lighting will be shielded and directed away from tidal marshes.
- Construction activities within 10 ft of the high tide line will not occur within two hours before or after extreme high tides (6.5 ft or above, as measured at the Golden Gate Bridge and adjusted to the timing of local high tides), when the marsh plain is inundated, because protective cover for these species is limited and activities could prevent them from reaching available cover.
- In either configuration, with or without the Loop Road, salt marsh and upland grassland habitats, which may be used for foraging and high-tide refugia by both species, would be located immediately adjacent to the new road and pathways. Therefore, dense upland ecotone/transitional salt marsh vegetation will be planted along the immediate edge of the shoulder of the Loop Road adjacent to salt marsh and upland grassland habitats to provide high-tide refugia for both species.
- In order to provide a barrier between transitional salt marsh and upland grassland habitats and the newly constructed Loop Road, and to discourage Loop Road/multiuse path users from entering potential habitats used by salt marsh harvest mice and salt marsh wandering shrews, a low (<3 ft tall) symbolic fence or wall with educational signs prohibiting entry will be placed along the edge of the developed area, between the developed area and the upland ecotone to be added as described above.

Mitigation Measure BIO-5. Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew Compensatory Mitigation. Compensatory mitigation for individual project impacts on the salt marsh harvest mouse and salt marsh wandering shrew habitat will be provided via the purchase of credits from a conservation bank or mitigation bank that has restored suitable salt marsh habitat for these species; project-specific mitigation via the preservation and management of suitable habitat for this species; or some combination of the two approaches. If no USFWS/CDFW-approved conservation banks specifically for these mammals are available, credits in a tidal wetland mitigation bank that provides suitable habitat for, and is expected to be occupied by, these species would be adequate. Compensatory mitigation shall be provided at a minimum ratio of 2:1 (mitigation:impact) on an acreage basis if project-specific mitigation is performed or 1:1 if credits are purchased from a mitigation or conservation bank. Compensatory mitigation shall be provided for any potentially suitable habitat for these species that is permanently lost to development or that is present within 50 ft of any new or higher-intensity lighting installed by Specific Plan activities.

If project-specific mitigation is provided as compensatory mitigation, the applicant will prepare an HMMP describing the measures that will be taken to create, restore, or enhance habitat for the salt marsh harvest mouse and salt marsh wandering shrew and monitor the effects of the mitigation on these species. The HMMP will include, at a minimum, the following:

- A summary of project impacts on the salt marsh harvest mouse and salt marsh wandering shrew and the proposed mitigation of these impacts;
- A description of the location and boundaries of the mitigation site and a description of existing mitigation site conditions;
- A description of measures to be undertaken, if necessary, to enhance (e.g., through focused management) the mitigation site for the salt marsh harvest mouse and salt marsh wandering shrew;
- Proposed management activities, such as management of invasive plants, to maintain high-quality habitat conditions for the focal species;
- A description of community and species monitoring measures on the mitigation site, including specific, objective goals and objectives, performance indicators, success criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule. At a minimum, success criteria will include demonstration that habitat conditions are suitable for occupancy by the salt marsh harvest mouse and salt marsh wandering shrew, and that either (a) at least one of these species is present, or (b) the site is connected to pre-existing, suitable, and presumably occupied habitat so that colonization of the mitigation site is determined to be likely by a qualified biologist. Monitoring will occur until these criteria are achieved but for no less than 5 years;
- A description of the HMMP's adaptive component, including potential contingency measures for mitigation elements that do not meet performance criteria; and
- A description of the funding mechanism to ensure the long-term maintenance and monitoring of the mitigation lands.

The HMMP will be submitted to the USFWS and CDFW for review and approval prior to implementation.

Mitigation Measure BIO-6. Prohibit Rodenticides. Use of rodenticides shall not be allowed by the City within 100 ft of any salt marsh habitat.

Mitigation Measure BIO-7. Restrict Pesticide Use in and near Salt Marsh Habitats. All pesticides used within 100 ft of salt marsh habitats must be utilized in accordance with the manufacturer's directions. No pesticides shall be applied within tidal marsh habitats as part of Specific Plan activities. Any pesticides used in areas where they could be washed, or could drift via wind, into tidal marsh habitat must be approved by the EPA for use in aquatic habitats.

Mitigation Measure BIO-8. Raptor Perch Deterrents. Within 300 ft of any salt marsh habitats within or adjacent to the Specific Plan area, raptor perch deterrents will be placed on any edges of building roofs, terraces, or other structures (e.g., light poles or electrical towers) that are high enough to overlook the marsh and that have an unobstructed view to the marsh. The specific type of perch deterrent(s) used will be approved by a qualified biologist and the City.

Mitigation Measure BIO-9. Landscape Design. To avoid perches for avian predators and dense woody vegetation that could hide mammalian predators of salt marsh harvest mouse and salt marsh wandering shrew, new landscaping, as well as the size, location and species of any new or replacement public street trees, within 300 ft of salt marsh habitats shall be reviewed and approved by a qualified biologist familiar with these species' ecology to ensure that no new landscaping poses a threat to these two mammals. Intervening structures, topography, and other features that may block the view of the tidal marsh from avian predators using proposed trees will be considered by the biologist.

Mitigation Measure BIO-10. Restrictions on Outdoor Cat Feeding Stations and Off-Leash Dogs. Outdoor cat feeding stations will be prohibited within 300 ft of salt marsh habitats. Off-leash dogs will be prohibited within 100 ft of salt marsh habitats unless within fenced areas.

Mitigation Measure BIO-11. Food Waste Management. The following measures shall be implemented within 100 ft of salt marsh habitats to minimize impacts on salt marsh harvest mice and salt marsh wandering shrews due to the attraction of nuisance predators.

- Any bins used for food waste shall include lids that seal tightly to prevent access by animals and incorporate a mechanism to prevent them from being inadvertently left open when not in active use.
- Outdoor trash and recycling receptacles shall be emptied frequently enough that cans do not fill up and allow food waste to spill out.
- Litter on the site shall be picked up daily, and no food trash is left on-site overnight.
- Signs shall be placed on trash and recycling receptacles reminding users to close the lids so that they will not be inadvertently left open.
- Residents and visitors shall be prohibited from feeding feral or wild mammals.
- Educational signs shall be posted explaining the importance and sensitivity of nearby marsh habitats, prohibiting feeding wildlife and feral animals on the property, prohibiting off-leash dogs, and advising residents and visitors to dispose of food waste in outdoor areas appropriately to avoid attracting and subsidizing nuisance species.

6.1.4 Impacts on the California Black Rail and California Ridgway's Rail (Less than Significant with Mitigation)

As discussed in Chapter 4.4 of the 2012 EIR, the Specific Plan area contains suitable nesting habitat for the California black rail and California Ridgway's rail, and future development that results in impacts on habitat, individuals, or breeding success of these species would be a significant impact. The following impact discussion and mitigation measures have been updated and expanded to provide more detail than presented in the 2012 EIR.

Suitable breeding habitat for the California black rail and California Ridgway's rail is present within the Specific Plan area in the salt marsh habitats in the northeast portion of the Specific Plan area and immediately adjacent to the entire eastern margin of the Specific Plan area. Direct and indirect impacts to these species' habitats are similar to those described in Section 6.1.3 for the salt marsh harvest mouse and salt marsh wandering shrew. For example, in the absence of protective measures, Specific Plan activities (including the construction of the Loop Road) could impact the California Ridgway's rail and California black rail by attracting predators due to increased human food availability, increasing the abundance and quality of hunting perches for avian predators such as common ravens and red-tailed hawks, and increasing nighttime lighting of these species' habitat. Direct loss of tidal salt marsh (including upland transitional habitat that provides refugia for rails during high tides) would constitute a loss of suitable habitat for these species. Implementation of MM BIO-4 through BIO-11, described in section 6.1.3 above, with California black rail and California Ridgway's rail incorporated into the worker training program described in MM BIO-4 and in the compensatory mitigation described in MM BIO-5, will reduce these impacts to less-than-significant levels.

If pairs of the California black rail and/or California Ridgway's rail are nesting in or close enough to the Specific Plan area when independent project construction occurs, heavy ground disturbance, noise, and vibrations caused by construction of independent projects could potentially result in the abandonment of nests, and possibly the loss of eggs or young as a result. The 2012 EIR considered implementation of its MM BIO-3a, which includes preconstruction surveys, the establishment of buffers around active nests, and a worker education program about sensitive species, to be sufficient to reduce these impacts to a less-than-significant level. However, due to the difficulty in detecting active rail nests and the disturbance caused by preconstruction nest surveys during the breeding season, it is our opinion that alternative measures (described in MM BIO-12) are more appropriate to reduce potential impacts on the California Ridgway's rail and California black rail to less-than-significant levels.

Mitigation Measure BIO-12. Seasonal Avoidance or Protocol-level Surveys and Buffers around Calling Centers. To avoid causing the abandonment of an active California Ridgway's rail or California black rail nest, independent project activities within 700 ft of salt marsh habitats within or adjacent to the Specific Plan area will be avoided during the rail breeding season (from February 1 through August 31) unless (a) a qualified biologist determines that a reduced buffer (but no less than 200 ft) is appropriate due to intervening development or obstructions, the level of disturbance by the activity (in terms of noise and equipment), or other factors that would reduce the potential for the activity to disturb nesting rails, or (2) protocol-level surveys are conducted by a qualified biologist to determine rail locations and territories during the year in which construction is initiated. Protocol-level surveys are typically initiated in late January, so proactive planning is necessary to ensure that such surveys are conducted according to the protocol during the year in which construction occurs. If breeding rails are determined to be present, construction activities will not occur within 700 ft of an identified California Ridgway's rail calling center, or within 300 ft of a California black rail calling center, during the breeding season.

6.1.5 Impacts on Special-Status Fish, Designated Critical Habitat, and Essential Fish Habitat (Less than Significant with Mitigation)

The 2012 EIR assessed impacts to wetland habitats but did not explicitly evaluate impacts to fish. Special-status fish, including green sturgeon, Central California Coast steelhead, and longfin smelt may occasionally occur immediately adjacent to the Specific Plan area in an unnamed tidal slough adjacent to the eastern portion of the Specific Plan area. This tidal slough has been included within NMFS's San Francisco Bay-wide critical habitat designation for green sturgeon and Central California Coast steelhead. In addition, the tidal slough provides EFH for a variety of FMP-managed fish species.

If activities under the Specific Plan were to occur in or near tidal salt marsh, open water, or tidal slough habitats, those activities could potentially impact special-status fish, designated critical habitat, and EFH. In-water work could result in fish stranding if fish are trapped in excavated areas or within coffer dams around work areas; reduction in water quality could occur due to mobilization of sediments or contaminants (e.g., leaks from construction equipment) during construction; and there is some potential for loss of a limited area of fish habitat. Construction may result in indirect adverse effects on fish and their habitats due to short-term increases in suspended sediment and turbidity near the project site as a result of run-off and potential leaking or spills of chemical contaminants or hazardous materials (gasoline, oil, grease, concrete) onto the ground from use of heavy equipment adjacent to aquatic habitats. Increased suspended sediment and turbidity may have direct effects on special-status fish and FMP-managed species by interfering with visual foraging, interfering with migratory behavior, and injuring gills. Indirect effects could include increasing susceptibility to predation and reducing availability of food. Leaking or spills of chemical contaminants or hazardous materials could be toxic to special-status fish, FMP-managed species, and their prey. Due to the regional rarity of special-status fish and the ecological importance of EFH and FMP-managed fish species, such impacts would be significant under CEQA in the absence of recommended measures to avoid or minimize impacts.

As described in Section 3.2.6, the project will comply with the requirements of the NPDES Statewide Storm Water Permit and Statewide General Construction Permit. Collectively, these requirements are likely to reduce the project's impacts on water quality in aquatic habitats in and adjacent to the Specific Plan area. In addition, implementation of mitigation measures BIO-13 through BIO-15 will reduce impacts on fish and their habitats to less-than-significant levels.

Mitigation Measure BIO-13. Worker Environmental Awareness Training. Personnel working on projects within or adjacent to salt marsh, open water, or tidal slough habitats shall be trained by a qualified biologist in the importance of the marine environment to special-status fish and other aquatic animals and plants, and the environmental protection measures put in place to prevent impacts to these species, their habitats, and EFH. This training session will include the information described in MM BIO-4, as well as the following.

- A review of the special-status fish, other aquatic animals and plants, and sensitive habitats that could be found in or near the work areas

- Measures to avoid and minimize adverse effects to special-status fish, other aquatic animals and plants, their habitats, and EFH
- A review of all conditions and requirements of environmental permits, reports, and plans (e.g., USACE permits)

Mitigation Measure BIO-14. Water Quality Protection. During construction, the project shall employ standard construction BMPs to protect water quality. These BMPs may include but are not limited to the following:

- Sediment mitigation measures shall be in place prior to the onset of project construction and shall be monitored and maintained until construction activities have been completed. Temporary stockpiling of excavated or imported material shall occur only in approved construction staging areas. Stockpiles that are to remain on the site throughout the wet season shall be protected to prevent erosion.
- No litter, debris, or sediment shall be dumped into storm drains. Daily trash and debris removal shall occur at the site.
- All litter and construction debris shall be disposed of off-site in accordance with state and local regulations. All trash and debris within the work area shall be placed in containers with secure lids before the end of work each day in order to reduce the likelihood of predators being attracted to the site by discarded food wrappers and other rubbish that may be left on-site. If containers meeting these criteria are not available, all rubbish shall be removed from the project site at the end of each work day.
- Equipment staging and parking of vehicles shall occur on established access roads and flat surfaces.
- The integrity and effectiveness of construction fencing and erosion control measures shall be inspected on a daily basis. Corrective actions and repairs shall be carried out immediately for fence breaches and ineffective BMPs.
- Fueling, washing, and maintenance of vehicles shall occur in developed habitat, away from all tidal salt marsh, open water, and tidal slough habitats. Equipment shall be regularly maintained to avoid fluid leaks. Any leaks shall be captured in containers until equipment is moved to a repair location. Hazardous materials shall be stored only within the developed habitat. Containment and cleanup plans shall be prepared and put in place for immediate cleanup of fluid or hazardous materials spills.
- Absorbent materials designated for spill containment and clean-up activities shall be available on project sites for use in an accidental spill.
- At no time shall sediment-laden water be allowed to enter the salt marsh, open water, or tidal slough habitats.

Mitigation Measure BIO-15. Dewatering Plan and In-Water Work Windows. No in-water work will occur in the open water or tidal slough habitats within the Specific Plan area unless a dewatering plan is prepared and approved by the City. This plan will describe measures implemented to ensure that fish are excluded from the work area prior to dewatering. Any in-water work shall be conducted between June 1 through November 30 to

avoid the periods when special-status fish have the greatest potential to occur in the Specific Plan area. If completion of in-water work within this period is not feasible due to scheduling issues, timing guidelines shall be established and approved by NMFS prior to initiation of in-water work.

6.1.6 Impacts on Burrowing Owl (Less than Significant with Mitigation)

The 2012 EIR considered impacts on burrowing owls to be significant and described mitigation measures for the species. The following impact discussion and mitigation measures have been updated and expanded to provide more detail than presented in the 2012 EIR.

As discussed in section 5.2 of this assessment, the burrowing owl (a California species of special concern) is not known or expected to nest in or very close to the Specific Plan area, but it may occur as a wintering resident or migrant, and nonbreeding individuals could potentially forage and roost in the Specific Plan area in small numbers. The Specific Plan area does not provide high-quality habitat for this species due to the lack of extensive undisturbed grassland habitat, the close proximity of development to the small areas of grassland and ruderal habitats in the urbanized Specific Plan region, and the scarcity of ground squirrel burrows in most of the Specific Plan area. Because the Specific Plan area lacks high-quality burrowing owl habitat and is not known or expected to support breeding burrowing owls or large numbers of nonbreeding birds, loss of habitat as a result of Specific Plan implementation would not rise to the CEQA standard of a substantial adverse effect on regional populations of the species.

Nevertheless, to the extent that burrowing owls use the Specific Plan area, project activities could potentially disturb foraging and roosting individuals. Because they roost underground, burrowing owls may be killed or injured during construction activities if occupied burrows are destroyed or compacted by heavy equipment. Construction activities that occur in close proximity to active burrows may disturb owls to the point of abandoning their burrows, exposing them to increased predation risk as they disperse. Due to the rarity of the burrowing owl in the region and the effects on burrowing owl populations of the loss of any individuals, the loss of individual burrowing owls would be significant under CEQA. Implementation of MM BIO-16 will reduce these impacts to less-than-significant levels.

Mitigation Measure BIO-16. Burrowing Owl Minimization Measures. To minimize impacts on burrowing owls, the following measures will be implemented.

- **Preconstruction Surveys.** Preconstruction surveys for burrowing owls will be conducted prior to the initiation of construction activities within suitable burrowing owl roosting or nesting habitat (i.e., grassland or ruderal habitats), or within 250 ft of this habitat. During the initial site visit, a qualified biologist will survey the entire project site and (to the extent that access allows) areas within 250 ft by walking transects with centerlines no more than 50 ft apart and ensure complete visual coverage and looking for suitable burrows that could be used by burrowing owls. If no suitable burrows are present, no additional surveys are required. If suitable burrows are determined to be present within 250 ft of project impact areas, a qualified biologist will conduct a second survey to determine whether owls are present in areas where they could be affected by proposed activities. The surveys will last a minimum of three hours, beginning one

hour before sunrise and continuing until 2 hours after sunrise or beginning 2 hours before sunset and continuing until 1 hour after sunset. The first survey may occur up to 14 days prior to the start of construction activities in any given area, and the second survey will be conducted within two days prior to the start of construction activities.

- **Implement Buffer Zones for Burrowing Owls.** If burrowing owls are detected during the pre-activity survey, a 165-ft buffer, within which no newly initiated construction-related activities should occur, will be maintained between construction activities and occupied burrows to the extent feasible during the nonbreeding season (September 1 through January 31). This buffer may be reduced if a qualified biologist determines that work will not result in damage to the burrow(s) being used by the owls. Though the species is highly unlikely to breed in the Specific Plan area, owls present between February 1 and August 31 will be assumed to be nesting, and a 250-ft protected area will remain in effect until August 31, or until the burrow is no longer occupied, whichever occurs first.
- **Passive Relocation.** No burrowing owls shall be relocated from burrows during the breeding season (February 1 through August 31). If, during the nonbreeding season (September 1 through January 31), it is infeasible to maintain a buffer around occupied burrow(s) large enough to ensure that the burrow(s) will not be physically disturbed (thus risking injury or mortality of the owl), the owl may be passively relocated from the occupied burrow(s) using one-way doors. Passive relocation shall be performed only by a qualified biologist. One-way doors must be in place for a minimum of 48 hours, during dry conditions, to ensure that owls have left the burrow before the burrow is impacted.

6.1.7 Impacts on the Western Snowy Plover (Less than Significant with Mitigation)

The 2012 EIR did not address potential impacts on western snowy plovers. Western snowy plovers are not expected to nest or even forage within the Specific Plan area, as suitable habitat is absent from the Specific Plan area. However, the species is known to nest in salt panne habitat in Pond SF 2 north of the Specific Plan area at the Ravenswood Complex of the Don Edwards-San Francisco Bay National Wildlife Refuge. The nearest potential nesting and foraging habitat occurs in the southwest corner of Pond SF 2; depending on water levels within that pond, suitable salt panne habitat may be present as close as approximately 300 ft north of the Specific Plan's northern boundary. Typically, the USFWS recommends a 600-ft buffer between active snowy plover nests and construction activities or other areas of intensive human activity to avoid disturbance of nesting plovers. Therefore, if individual project activities in the northwest corner of the Specific Plan area were to occur within 600 ft of active nests, heavy ground disturbance, noise, and vibrations caused by construction of independent projects could potentially result in the abandonment of nests, and possibly the loss of eggs or young as a result. However, due to the presence of the elevated rail line, trees and shrubs along the rail line, and the southern Pond SF 2 levee between the Specific Plan area and Pond SF 2 – all of which help to screen human activity in the Specific Plan area from plovers in Pond SF 2 – Specific Plan activities other than heavy construction are not expected to disturb nesting plovers. In addition, Specific Plan activities that subsidize or attract nuisance and predatory species that might then prey on snowy plovers and their eggs and chicks, or that provided high-quality perches for avian predators, could increase predation on snowy plovers. Due to the rarity of this species, such impacts would be considered significant impact under CEQA in the absence of mitigation

measures. Implementation of MM BIO-8, BIO-9, and BIO-11 described in Section 6.1.3 will minimize predation-related impacts, and MM BIO-17 will reduce potential impacts related to disturbance of active nests to less-than-significant levels.

Mitigation Measure BIO-17. Seasonal Avoidance and Buffers. No Specific Plan construction activities will be performed within 600 ft of an active snowy plover nest during the snowy plover breeding season, March 1 through September 14. Prior to the initiation of any activities within 300 ft of the southwest corner of Pond SF 2, north of the Specific Plan area during the period March 1 through September 14, a qualified biologist will conduct a survey for suitable habitat for nesting snowy plovers, and for active nests. If no suitable nesting habitat or active nests are present within 600 ft of the proposed activity, construction may proceed. If an active nest is present, no construction activities will commence within 600 ft of the nest until the nest is no longer active.

6.1.8 Impacts on Nesting Birds (Less than Significant with Mitigation)

Construction disturbance during the bird nesting season (February 1 through August 31, for most species) could result in the incidental loss of eggs or nestlings of native birds, either directly through the destruction or disturbance of active nests or indirectly by causing enough disturbance that adults abandon their nests. Impacts on some special-status birds, including the California Ridgway's rail and California black rail (Section 6.1.4), burrowing owl (Section 6.1.6), and western snowy plover (Section 6.1.7) have been previously addressed. In addition to those four species, several other special-status birds may nest in or adjacent to the Specific Plan area. The Alameda song sparrow, Bryant's savannah sparrow, San Francisco common yellowthroat, and northern harrier (all California species of special concern), as well as the white-tailed kite (state fully-protected species), are associated with wetland and/or grassland habitats and are known to nest in or near the Specific Plan area. Impacts to these bird species of special concern were not specifically discussed in the 2012 EIR.

San Francisco common yellowthroats, Alameda song sparrows, Bryant's savannah sparrows, and northern harriers may nest in marsh or adjacent upland vegetation along the eastern margins of the Specific Plan area, and white-tailed kites may nest in trees in or near the Specific Plan area. Due to the potential proximity of nesting to Specific Plan activities, eggs or young in nests of these species may be killed or injured during construction activities as a result of destruction by construction personnel or equipment, or removal of vegetation containing nests. In addition, construction activities causing a substantial increase in noise, movement of equipment, or human presence near active nests could result in the abandonment of nests, and possibly the loss of eggs or young as a result. Increased human activity may also affect the behavior of birds, causing them to avoid work sites and possibly exposing them to increased competition with other birds in the areas to which they disperse and to increased levels of predation caused by their unfamiliarity with the new area. Increases in human concentration and activity associated with construction in the vicinity of the project site may also result in an increase in native and nonnative predators that would be attracted to trash left in the work site, and in a reduction in the quality of breeding or foraging habitat caused by the introduction of nonnative vegetation. In addition, increased sedimentation or hazardous material spills from construction activities may result in the temporary or permanent degradation of water quality and, hence, habitat quality in

wetland habitats downstream from work sites, which could negatively affect habitat quality for these species. Following completion of construction, increased human activity in and near these species' habitats and near nests could potentially disturb these species to the point that they no longer occupy suitable habitat on or near the project site.

Because these species occur mainly in the undeveloped habitats along the eastern margin of the site, and because the majority of these areas will remain undeveloped, permanent impacts to their breeding and foraging habitats will be limited. These species are not particularly rare in the region, and suitable habitat for these species within the region is relatively abundant. Therefore, the permanent loss and/or temporary disturbance nesting and foraging habitat for these species in the Specific Plan area would not result in appreciable impacts on their regional populations.

However, one to several pairs of any of these species could potentially nest within the Specific Plan area, or close enough to the Specific Plan area (e.g., within 300 ft for raptors and 100 ft for other birds) to potentially be affected by construction activities and subsequent use of the project site. In addition, numerous other, non-special-status birds nest in the Specific Plan area, and they may be impacted by Specific Plan activities in the same ways described above for special-status birds. Given the large size of the Specific Plan area, impacts of construction activities could affect relatively large numbers of nesting birds. Implementation of MM BIO-18 will reduce these potential impacts to a less-than significant level.

Mitigation Measure BIO-18. Nesting Bird Avoidance. The following measures will be implemented to avoid and minimize impacts of Specific Plan activities on nesting birds.

- **Seasonal Avoidance.** To the extent feasible, vegetation removal, demolition, and initiation of grading and other construction activities should be scheduled to avoid the nesting season. If such activities take place outside the nesting season, all impacts on nesting birds protected under the MBTA and California Fish and Game Code will be avoided. The nesting season for most birds in San Mateo County extends from February 1 through August 31.
- **Preconstruction/Pre-disturbance Surveys.** If it is not possible to schedule vegetation removal, demolition, and construction activities between September 1 and January 31, then preconstruction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no nests of migratory birds will be disturbed during project implementation. These surveys shall be conducted no more than 7 days prior to the initiation of tree removal, demolition, ground disturbance, or construction activities for each construction phase. During this survey, the biologist will inspect all potential nesting habitats (e.g., trees, shrubs, buildings, electrical towers, and the ground) in and immediately adjacent to the impact areas for migratory bird nests.
- **Buffers.** If an active nest is found within areas that would be disturbed by project activities, the qualified biologist will determine the extent of a construction-free buffer zone to be established around the nest (typically 300 ft for raptors and 100 ft for other species, though buffers may be reduced by the biologist

based on intervening structures or vegetation, the magnitude of disturbance produced by the activity, and the level of human activity to which the birds are already habituated), to ensure that no active nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation.

- **Inhibition of Nesting.** If construction activities will not be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) that are scheduled to be removed by the project may be removed prior to the start of the nesting season (e.g., prior to February 1) to reduce the potential for establishment of nests in areas to be disturbed.

6.1.9 Impacts on Non-breeding Special-Status Animals (Less than Significant)

Several special-status bird and mammal species occur in the Specific Plan area as non-breeding migrants, transients, or foragers, but they are not known or expected to breed or occur in large numbers in the project area; these include birds such as the California least tern, tricolored blackbird, and loggerhead shrike, and mammals such as the pallid bat, Townsend's big-eared bat, and western red bat.

Implementation of Specific Plan activities would not result in the injury or mortality of any individuals of these species, which are mobile enough to avoid construction equipment. None of these species is expected to occur on the site in large numbers or use the site regularly, and thus, Specific Plan activities are expected to result in the disturbance of few, if any, individuals of these species. Specific Plan activities could result in the permanent loss and temporary disturbance of a small amount of grassland or ruderal/barren foraging habitat for these species, or roosting sites for western red bats. In addition, construction-related disturbance may result in the alteration of foraging patterns (e.g., avoidance of work sites because of increased noise and activity levels during project activities) of a few individuals of these species. However, the Specific Plan area site does not provide important or extensive foraging habitat that is used regularly or by large numbers of any of these species, and is not heavily relied upon by a breeding pair of any of these species. Thus, impacts on these species and their foraging habitats resulting from independent projects would be very limited. Accordingly, Specific Plan activities would not result in substantial reductions in local or regional populations of these species, and would affect a very low proportion of regionally available habitat. Therefore, such an impact would be less than significant under CEQA.

6.1.10 Impacts of Increased Lighting on Animals (Less than Significant with Mitigation)

Potential impacts from increased lighting associated with the implementation of the Specific Plan were not discussed in the 2012 EIR. Independent projects in the Specific Plan area will construct buildings, other features (e.g., pedestrian walkways and parking areas), and the proposed Loop Road, that may increase the amount of lighting within and around the Specific Plan area. Lighting would be the result of fixtures illuminating buildings, building architectural lighting, parking lot and pedestrian lighting, as well as Loop Road lighting fixtures along the road and multiuse pathways. Depending on the location, direction, and intensity of the project's exterior lighting elements, lighting can potentially spill into adjacent natural areas, thereby resulting in an increase in lighting compared to existing conditions. Areas to the west and south of the project site are primarily developed

areas that do not support sensitive species that might be significantly impacted by illuminance from the project. However, areas along the eastern and northern margins of the Specific Plan area include or are adjacent to salt marsh habitats supporting a variety of wildlife species, including sensitive species such as the salt marsh harvest mouse, salt marsh wandering shrew, California black rail, California Ridgway's rail, western snowy plover, and other special-status birds.

Many animals are sensitive to light cues, which influence their physiology and shape their behaviors, particularly during the breeding season (Ringer 1972, de Molenaar et al. 2006). Artificial light has been used as a means of manipulating breeding behavior and productivity in captive birds for decades (de Molenaar et al. 2006), and has been shown to influence the territorial singing behavior of wild birds (Longcore and Rich 2004, Miller 2006, de Molenaar et al. 2006). While it is difficult to extrapolate results of experiments on captive birds to wild populations, it is known that photoperiod (the relative amount of light and dark in a 24-hour period) is an essential cue triggering physiological processes as diverse as growth, metabolism, development, breeding behavior, and molting (de Molenaar et al. 2006). This holds true for birds, mammals (Beier 2006), and other taxa as well, suggesting that increases in ambient light may interfere with these processes across a wide range of species, resulting in impacts on wildlife populations.

Artificial lighting may indirectly impact mammals and birds by increasing the nocturnal activity of predators such as owls, hawks, and mammalian predators (Negro et al. 2000, Longcore and Rich 2004, DeCandido and Allen 2006, Beier 2006). The presence of artificial light may also influence habitat use by rodents (Beier 2006) and by breeding birds (Rogers et al. 2006, de Molenaar et al. 2006) by causing avoidance of well-lit areas, resulting in a net loss of habitat availability and quality.

Up-lighting refers to light that projects upwards above the fixture. There are two primary ways in which the luminance of up-lights might impact the movements of birds. First, local birds using habitats on a site may become disoriented during flights among foraging areas and fly toward the lights, colliding with the lights or with nearby structures. Second, nocturnally migrating birds may alter their flight direction or behavior upon seeing lights; the birds may be drawn toward the lights or may become disoriented, potentially striking objects such as buildings, adjacent power lines, or even the lights themselves.

Wildlife species using the undeveloped habitats within and adjacent to the Specific Plan area may be subject to increased predation, decreased habitat availability (for species that show aversion to increased lighting), and alterations of physiological processes if projects produce appreciably greater illuminance than the existing conditions. New lighting has some potential to attract and/or disorient birds, especially during inclement weather when nocturnally migrating birds descend to lower altitudes. As a result, some birds moving along the San Francisco Bay at night may be (1) attracted to the Specific Plan area, where they are more likely to collide with buildings, and/or (2) disoriented by night lighting, potentially causing them to collide with the buildings (bird collision impacts are described further in Section 6.2.4). This impact on local wildlife populations is potentially significant under CEQA due to the high ecological value of these adjacent habitat areas and the rarity of some of the species inhabiting these areas. MM BIO-19 shall be implemented to minimize lighting as part of project design, thereby reducing this impact to a less-than-significant level.

Mitigation Measure BIO-19. Lighting Impact Reduction Measures. Measures shall be implemented to reduce spillover of lighting into, or glare/increased luminance perceived by animals using, natural habitats along the margins of the Specific Plan area, as well as adverse effects of lighting on migratory birds.

- Exterior lighting shall be minimized (e.g., by turning lights off) in accordance with recommendations from the International Dark-Sky Association (2022) from midnight until dawn, at a minimum, except as needed for safety and City code compliance. Exterior lighting within the Specific Plan area shall be shielded to block illumination from shining upward or outward into the sensitive habitats (i.e., salt marshes) within and adjacent to the Specific Plan area. Uplighting shall be avoided.
- Spillage of lighting from building interiors shall be minimized using occupancy sensors, dimmers, or other mechanisms from midnight until dawn, at a minimum, during bird migration seasons (February–May and August–November). If desired, this measure may be voluntarily implemented year-round.

6.2 Impacts on Sensitive Communities: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS (Less than Significant)

6.2.1 Impacts on Riparian Habitat or Other Sensitive Natural Communities (Less than Significant with Mitigation)

The 2012 EIR briefly discusses impacts to riparian or other sensitive natural communities in the context of impacts to northern coastal salt marsh, which is considered a sensitive habitat by the CDFW. This habitat is present in the northeastern part of the Specific Plan area between University Village and Ravenswood OSP, the northwest corner, and the Specific Plan area’s northern boundary. Some is also found along Bay Road towards Cooley Landing. Loss of northern coastal salt marsh would be a significant impact; because that plant community is also regulated as waters of the U.S./state, impacts of Specific Plan activities on northern coastal salt marsh are described in further detail in Section 6.3 below, and implementation of MM BIO-20, BIO-21, and BIO-22 will reduce impacts on northern coastal salt marsh to less-than-significant levels. No riparian habitat or other sensitive natural communities are present in the Specific Plan area or would be impacted by Specific Plan activities.

6.2.2 Impacts Caused by Nonnative and Invasive Species (Less than Significant with Mitigation)

The 2012 EIR did not discuss potential impacts due to nonnative and invasive species. However, a number of nonnative, invasive plant species occur in the Specific Plan area. Of these, perennial peppergrass, ice plant, and yellow star-thistle have the potential to cause the most severe ecological impacts. In addition, fennel, black mustard, and wild oats were observed in the Specific Plan area and can have substantial and apparent ecological impacts if they spread into native, sensitive habitats (Cal-IPC 2022). Invasive species can spread quickly and be

difficult to eradicate, as they produce seeds that germinate readily following disturbance. Further, disturbed areas are highly susceptible to colonization by nonnative, invasive species that occur locally, or whose propagules are transported by personnel, vehicles, and other equipment.

Specific Plan activities would result in soil disturbance in areas adjacent to sensitive salt marsh and tidal slough habitats. Activities such as trampling, equipment staging, and vegetation removal are all factors that would contribute to disturbance. Areas of disturbance could serve as the source for promoting the spread of nonnative species, which could degrade the ecological values of the wetlands that occur on and immediately adjacent to the Specific Plan area, and adversely affect native plants and wildlife that occur there. The introduction or spread of invasive weeds into sensitive wetland habitats would be a significant impact under CEQA. Implementation of MM BIO-20 will reduce this impact to a less-than-significant level.

In addition to nonnative plants, nonnative animals may benefit from Specific Plan activities. Nonnative animals such as house mice, Norway rats, black rats, and feral cats can compete with and/or prey upon sensitive native animals. Provision of shelter and food for nonnative animals, particularly as a result of outdoor feeding of feral cats and improper disposal of human food waste, subsidizes populations of these nonnative species at the expense of native animals. Implementation of MM BIO-10 and BIO-11 will reduce such impacts to less-than-significant levels.

Mitigation Measure BIO-20. Implement Invasive Weed BMPs. The invasion and/or spread of noxious weeds will be avoided by the use of the following invasive weed BMPs:

- The use of moderate or highly invasive (Cal-IPC 2022) and/or noxious weed (as defined by California Department of Food and Agriculture) for landscaping shall be prohibited.
- During project construction, all seeds and straw materials used in the Specific Plan area shall be weed-free rice (or similar material acceptable to the City) straw, and all gravel and fill material will be certified weed-free to the satisfaction of the City. Any deviation from this will be approved by the City.
- During project construction within, or within 100 ft of, tidal salt marsh, open water, or tidal slough habitats, vehicles and all equipment shall be washed (including wheels, undercarriages, and bumpers) before and after entering the proposed project footprint. Vehicles will be cleaned at existing construction yards or car washes.
- Following construction of project, a standard erosion control seed mix (acceptable to the City) from a local source, and free of invasive species, will be planted within the temporary impact zones on any disturbed ground that will not be under hardscape, landscaped, or maintained. This will minimize the potential for the germination of the majority of seeds from nonnative, invasive plant species.

6.3 Impacts on Wetlands: 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 (Less than Significant with mitigation)

Waters of the U.S./state are present in the form of the tidal salt marsh, open water, and tidal slough habitats in the eastern portion of the Specific Plan area. The 2012 EIR determined that wetland habitat could be disturbed to install subsurface infrastructure, or filled and lost as a consequence of development under the Specific Plan, and that these impacts would be less than significant with mitigation.

Although most Specific Plan activities may be able to avoid impacts on jurisdictional wetlands and other waters, Specific Plan activities could potentially impact jurisdictional waters through placement of fill; loss or degradation of wetland vegetation; temporary or permanent alteration of hydrology; or degradation of water quality through increased sedimentation, turbidity, and contamination with chemicals. In particular, if the Loop Road is constructed it will impact wetlands and other waters of the U.S./state where it would overlap open water and tidal salt marsh habitat. Wetlands may also be impacted by invasion by nonnative plants; implementation of MM BIO-20 will address that impact.

Shading from buildings constructed along the eastern margins of the Specific Plan area could also have some effect on vegetation in salt marsh habitats. Current building height restrictions in the Specific Plan area limit the tallest office buildings to eight stories above grade in the Waterfront Office and Ravenswood Flex Overlay zone, which occur directly adjacent to sensitive salt marsh habitats. Buildings in other development zones adjacent to sensitive salt marshes are limited to lower heights, between three and five stories above grade. All of these buildings have some potential to cast shadows over tidal marsh habitats to the east during the late afternoon and evening, when the sun is in the west. However, all new buildings would be constructed outside the 100-ft BCDC setback, thus limiting the amount of shade that will reach the tidal salt marsh habitat throughout the day. These marshes are also expected to remain open to the sky to the north, south, and east, and are expected to receive enough light that shading from the buildings would not result in substantial adverse effects on marsh vegetation.

Construction could result in impacts on water quality, which would degrade these sensitive habitats. Construction projects in California causing land disturbances that are equal to 1 ac or greater must comply with state requirements to control the discharge of stormwater pollutants under the NPDES *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit; Water Board Order No. 2009-0009-DWQ). Prior to the start of construction/demolition, a Notice of Intent must be filed with the State Water Board describing the project. A SWPPP must be developed and maintained during the project and it must include the use of BMPs to protect water quality until the site is stabilized. Standard permit conditions under the Construction General Permit require that the applicant utilize various measures including: on-site sediment control BMPs, damp street sweeping, temporary cover of disturbed land surfaces to control erosion during construction, and utilization of stabilized construction entrances or wash racks, among other elements. Implementation of MM BIO-14 and BIO-15 would further reduce such water-quality impacts. Nevertheless, in the absence of additional mitigation measures, Specific Plan activities could result in

significant impacts to jurisdictional wetlands and other waters. Implementation of MM BIO-21 and BIO-22 will reduce such impacts to less-than-significant levels.

Mitigation Measure BIO-21. Jurisdictional Waters Avoidance and Minimization Measures. The following measures will be implemented to avoid and minimize impacts to jurisdictional wetlands and other waters.

- During or prior to project design, a wetland delineation of the project area shall be conducted to determine precise boundaries of jurisdictional wetlands and other waters. Impacts to any jurisdictional habitats shall be avoided to the extent practicable. If wetlands or other waters under state or federal jurisdiction occur in the construction areas and involve the placement of fill or dredged materials or other alteration, the necessary and appropriate permits and approvals from responsible resources agencies shall be secured. As appropriate for the type of permit to be considered, options that avoid, minimize, or mitigate potential impacts on jurisdictional wetlands shall be evaluated. Conditions of approval attached to the permits shall be followed.
- Sensitive habitat areas including wetlands adjacent to, but outside of, the construction area shall be demarcated with orange construction fencing to exclude workers, vehicles, and equipment.
- The locations of habitats to be avoided shall be identified in the contract documents (plans and specifications) as “Sensitive Biological Resources – Do Not Disturb.”
- Jack-and-bore or other trenchless methods shall be used as feasible to reduce the need for surface construction within identified sensitive habitats and exclusion zones, and construction activities and vehicles shall be restricted to a specified right-of-way.
- Temporarily impacted wetlands and other waters shall be restored in place based on a restoration plan prepared by a qualified biologist and approved by the City.
- Where possible, trenches shall be worked from only one side to minimize impacts on adjacent habitat.
- Watering of exposed earth shall be conducted consistent with construction BMPs to minimize dust production.
- Trench lines shall be reseeded with native vegetation appropriate for the affected habitat type, and/or a double-trenching technique shall be used through sensitive habitats to help preserve the existing seedbank.

Mitigation Measure BIO-22. Jurisdictional Waters Compensatory Mitigation. If impacts to jurisdictional wetlands or other waters cannot be avoided, compensatory mitigation shall be provided as follows (or as otherwise required by conditions of applicable resource agency permits). Compensatory mitigation shall be provided via the purchase of credits from a wetland mitigation bank; project-specific mitigation via the creation

or restoration of the same general type of wetlands/waters impacted; or some combination of the two approaches. Compensatory mitigation shall be provided at a minimum ratio of 2:1 (mitigation:impact) on an acreage basis if project-specific mitigation is performed or 1:1 if credits are purchased from a mitigation bank. Mitigation performed for loss of salt marsh harvest mouse and salt marsh wandering shrew habitat, as described in MM BIO-5, may be adequate compensation for impacts to jurisdictional waters if performed via purchase of credits in a wetland mitigation bank and/or creation of suitable wetlands as described below.

If project-specific mitigation is provided as compensatory mitigation, the applicant will prepare an HMMP describing the measures that will be taken to create, restore, or enhance appropriate habitats and to monitor mitigation success. The HMMP will include, at a minimum, the following:

- A summary of project impacts on jurisdictional habitats and the proposed mitigation of these impacts;
- A description of the location and boundaries of the mitigation site and a description of existing mitigation site conditions;
- A description of measures to be undertaken, if necessary, to create, restore, or enhance appropriate habitats;
- Proposed management activities, such as management of invasive plants, to maintain high-quality habitat conditions;
- A description of community monitoring measures on the mitigation site, including specific, objective goals and objectives, performance indicators, success criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule. At a minimum, success criteria will include demonstration of at least 75% cover by native wetland plants within the mitigation area. Monitoring will occur until these criteria are achieved but for no less than 5 years;
- A description of the HMMP's adaptive component, including potential contingency measures for mitigation elements that do not meet performance criteria; and
- A description of the funding mechanism to ensure the long-term maintenance and monitoring of the mitigation lands.

The HMMP will be approved by the City and any agencies involved in issuing permits for the specific project in question (e.g., USACE and RWQCB) prior to the initiation of impacts to jurisdictional wetlands or other waters.

6.4 Impacts on Wildlife Movement: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established

native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (Less than Significant with Mitigation)

6.4.1 Impacts on Wildlife Movement (Less than Significant with Mitigation)

The Specific Plan area is heavily urbanized, and, as discussed in Section 4.3, the interior of the Specific Plan area does not provide a particularly important area for movement by non-flying wildlife due to the impediments posed by roads, buildings, fences, and other structures. In general, animals are able to move relatively unimpeded along the rail line on the northern edge of the Specific Plan area and along the upland/tidal marsh interface on the eastern edge of the Specific Plan area. However, the construction of the Loop Road would impede wildlife movement in these areas by increasing human activity (and potentially vehicular activity) and lighting within the narrow strip of wetland-upland ecotone in the northeast part of the Specific Plan area where wildlife movement is expected to be concentrated. Given the importance of wildlife movement along the edge of the baylands to populations of mammals in particular, this would be a significant impact. Implementation of Mitigation Measures BIO-4 (including restoration of ecotone vegetation on the marsh side of the Loop Road) and 19 (to minimize lighting impacts) would mitigate the impacts of the Loop Road on wildlife movement to less than significant levels.

Due to the proximity of the Specific Plan area to the edges of the San Francisco Bay, birds moving along the Pacific Flyway will fly past the Specific Plan area in moderate abundance during spring and fall migration. Because independent projects may construct new buildings along the urban margins of the Specific Plan area, birds may encounter these buildings and collide with any glazing that is present on their facades. Potential impacts due to bird collisions with Specific Plan-associated buildings, as well as mitigation measures to reduce these impacts to a less-than-significant level, are discussed in more detail in the following section.

6.4.2 Impacts due to Bird Collisions (Less than Significant with Mitigation)

Under existing conditions, terrestrial land uses and habitat conditions on the Specific Plan area are primarily urbanized. Vegetation in most of these areas is very limited in extent, and consists primarily of nonnative landscaped trees and shrubs. Nonnative vegetation supports fewer of the resources required by native birds than native vegetation, and the structural simplicity of the vegetation (without well-developed ground cover, understory, and canopy layers) further limits resources available to birds. Thus, although a number of bird species will regularly use the vegetation in the Specific Plan area, these species either (a) typically do so in low numbers, or (b) are regionally abundant, urban-adapted species.

The exception to these conditions occurs along the eastern margins of the Specific Plan area, adjacent to Ravenswood OSP and Palo Alto Baylands Nature Preserve, which provide habitat for many species of waterbirds and marsh-associated birds. A review of eBird hotspots in the immediate project vicinity indicates that approximately 157 species of birds are found throughout the Ravenswood OSP, while 166 are found in the marshes of the Palo Alto Baylands directly east of the Specific Plan area (Cornell Lab of Ornithology 2022). The majority of these species are common resident, migrant, or wintering wading birds, waterfowl, and passerines (i.e., songbirds).

Under proposed conditions, land use is expected to intensify, and development of new structures will occur in close proximity to the open salt marsh and grassland habitats in and adjacent to the eastern portions of the Specific Plan area. Specific Plan zoning in close proximity to the open habitats along the eastern margin of the Specific Plan area includes the following land use designations (north to south): Ravenswood OSP, Ravenswood Flex Overlay, Waterfront Office, Ravenswood Employment center, Industrial Transition, and Urban Residential. In all but the Ravenswood OSP, land uses will be converted primarily office/research and development buildings with a smaller amount of light industrial and moderate-density residential structures toward the south. Depending on the extent and type of vegetation included in proposed projects within these areas, bird use after project completion in these areas is expected to either remain similar due to a continued scarcity of vegetation, or increase with increasing quality of habitat offered by the landscape vegetation.

Shorebirds and waterbirds are unlikely to disperse from the San Francisco Bay, Ravenswood OSP, or the Baylands Preserve into developed areas, as these species are strongly associated with tidal habitats and open water. However, large numbers of migratory landbirds occur along the edges of San Francisco Bay during spring and fall migration. Such species tend to concentrate in more heavily vegetated areas such as riparian corridors or large, well-vegetated parks such as Coyote Point in San Mateo, or Shoreline Park in Mountain View. No heavily vegetated park areas or natural habitat such as riparian vegetation is present in the vicinity of the Specific Plan area to attract large concentrations of migrating songbirds (or would be present with project implementation), and the Specific Plan area is not located between two high-quality habitat areas such that songbirds would be flying past the Specific Plan area at an altitude as low as the proposed buildings. As a result, there is no expectation that very large numbers of migratory songbirds would be particularly attracted to, or would make heavy use of, the habitats in the Specific Plan area. Nevertheless, moderate numbers of migrant landbirds moving through the Bay area in spring and fall will use the landscaped areas in the Specific Plan area, particularly along the upland/baylands interface on the eastern edge of the Specific Plan area.

It has been well documented that glass windows and building façades can result in injury or mortality of birds due to birds' collisions with these surfaces (Klem 2009, Sheppard and Phillips 2015). Because birds do not perceive glass as an obstruction the way humans do, they may collide with glass when the sky or vegetation is reflected in glass (e.g., they see the glass as sky or vegetated areas); when transparent windows allow birds to perceive an unobstructed flight route through the glass (such as at corners); and when the combination of transparent glass and interior vegetation (such as in planted atria) results in attempts by birds to fly through glass to reach that vegetation. The greatest risk of avian collisions with buildings occurs in the area within 40–60 ft of the ground because this is the area in which most bird activity occurs (San Francisco Planning Department 2011, Sheppard and Phillips 2015). Very tall buildings (e.g., buildings 500 ft or more high) may pose a threat to birds that are migrating through the area, particularly to nocturnal migrants that may not see the buildings or that may be attracted to lights on the buildings (San Francisco Planning Department 2011).

Given that a moderate number of migratory landbirds, as well as urban-adapted residents, are expected to occur along the eastern margins of the Specific Plan area, there is potential for avian collisions with new buildings to occur frequently enough, over time, to result in a significant impact to regional populations. Appendix B of the Specific Plan includes bird-safe building standards that are largely sufficient to reduce these impacts to less-

than-significant levels under CEQA. However, we recommend several additions and modifications to the text of these standards to reliably reduce impacts due to bird collisions to less-than-significant levels. Relevant excerpts from the standards are shown below; corrections are underlined, bold, and italicized.

Bird-Safe Glazing Treatments

A. Bird-safe glazing treatments shall be used within the façade collision zone such that no more than 10 percent of a building façade consists of untreated glazing.

B. Bird-safe glazing treatments shall be used on the entirety of a ***feature*** collision zone's glazing.

C. Bird-safe glazing treatments may include any of the following:

- i. Fritting.
- ii. Netting.
- iii. Permanent stencils.
- iv. Frosted glass.
- v. Exterior screens.
- vi. Physical grids placed on the exterior of glazing.
- vii. Ultraviolet (UV) patterns visible to birds.

D. Bird-safe glazing treatments shall include vertical elements that are at least one-quarter inch wide, with a minimum spacing of four inches. In addition, treatments shall include horizontal elements that are at least one-eighth inch wide, with a maximum spacing of two inches.

Lighting. ***Lighting shall comply with Mitigation Measure BIO-19 in Section 6.1.10, above.***

Wind Generation. Any wind-generation device shall be a vertical generator that presents a solid appearance.

Modifications. The requirements of this section may be modified through the design review process, provided that other methods employed to prevent bird strikes ***are reviewed and approved by a qualified biologist.***

6.5 Impacts due to Conflicts with Local Policies: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (Less than Significant with Mitigation)

6.5.1 Impacts Related to General Plan (Less than Significant with Mitigation)

The City of East Palo Alto's General Plan Conservation and Open Space Policy 2.1, states "Conserve, protect, and maintain important natural plant and animal communities, such as the Baylands, Cooley Landing, the shoreline, and significant tree stands." Impacts to the important natural plant community represented by the northern coastal salt marsh would be in conflict with that policy. Implementation of MM BIO-14, BIO-15, and BIO-20 through BIO-22, as described in Section 6.3, would reduce conflicts with Policy 2.1 to less-than-significant levels by mitigating impacts of Specific Plan activities on northern coastal salt marsh.

6.5.2 Impacts on Regulated Trees (Less than Significant)

The City of East Palo Alto's tree ordinance protects trees having a trunk diameter equal to or greater than 12.7 inches. A number of trees meeting this criterion are likely to be removed by Specific Plan activities. These trees do not provide substantial habitat values or functions, and the majority of the trees in the Specific Plan area are nonnative, ornamental species. Because the majority of trees on the site are nonnative species, the ecological impact of tree removal from Project activities would be somewhat limited. However, failure to comply with a local ordinance regulating tree removal would be a significant impact. Therefore, all Specific Plan activities will comply with the City's tree ordinance, including measures to protect trees where feasible; obtaining a tree removal permit when avoidance is infeasible; and complying with any conditions of the tree removal permit, including any tree replacement requirements.

6.6 Impact due to Conflicts with an Adopted Habitat Conservation

Plan: Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan (No Impact)

The project site is not located within an area covered by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the project would not conflict with any such plans.

6.7 Cumulative Impacts

Cumulative impacts arise from the linking of impacts from past, current, and reasonably foreseeable future projects in the region. Future development activities in the Specific Plan area and elsewhere along the Bay edge in the East Palo Alto vicinity will result in impacts on the same types of habitats and species that will be affected by Specific Plan activities. The cumulative impact on biological resources resulting from Specific Plan activities in combination with other projects in the project area and larger region would depend on the relative magnitude of adverse effects of these projects on biological resources compared to the relative benefit of impact avoidance

and minimization efforts prescribed by planning documents, CEQA mitigation measures, and permit requirements for each project; compensatory mitigation and proactive conservation measures associated with each project; and the benefits to biological resources accruing from restoration projects in the region. In the absence of such avoidance, minimization, compensatory mitigation, and conservation measures, cumulatively significant impacts on biological resources would occur.

As discussed in Section 6, Specific Plan activities have the potential to impact a number of biological resources. However, individual projects implementing the Specific Plan will be required by the City to implement applicable mitigation measures to reduce the likelihood and magnitude of those impacts. The majority of the most sensitive biological resources in the Specific Plan area, in terms of sensitive habitats and species, are related to San Francisco Bay marshes and sloughs. Any impacts to such habitats would necessitate resource agency permits, and possibly FESA or CESA consultations. Conditions of resource agency approvals will also be implemented to avoid, minimize, and compensate for such impacts.

The main project in and near the Specific Plan area that is expected to impact sensitive habitats and species similar to those impacted by Specific Plan activities is the San Francisco Creek Joint Powers Authority's Strategy to Advance Flood Protection, Ecosystems and Recreation along San Francisco (SAFER) Bay project, which consists of engineered and natural flood protection features, habitat restoration, and recreation improvements along the Bay shoreline of East Palo Alto and Menlo Park to protect those communities from coastal flooding. The SAFER Bay project is expected to construct a levee along the shoreline, at the upland/bayland interface. As a result, that project will impact tidal marsh and tidal slough habitats, and habitat for special-status, salt marsh-associated plants and animals, while providing mitigation for such impacts through the restoration of similar habitats elsewhere. In fact, Specific Plan activities are less likely to impact these sensitive biological resources due to the impending SAFER Bay project, as the SAFER Bay project will by necessity be constructed between baylands habitats and the upland areas where Specific Plan activities are most likely to occur. Therefore, planning of Specific Plan activities with accommodation of the SAFER Bay project in mind is expected to minimize impacts of Specific Plan activities on sensitive biological resources.

In addition, regional restoration projects, including the Cooley Landing tidal restoration project that restored tidal marsh in the Ravenswood OSP, and the ongoing South Bay Salt Ponds Restoration Project, will result in substantial enhancement of tidal habitat in the South Bay, thus increasing the extent and quality of the types of sensitive habitats and species that may be impacted by Specific Plan activities. These restoration projects will help avoid significant cumulative impacts, and with implementation of mitigation measures described in this biological resources report, Specific Plan activities will not have a cumulatively considerable contribution to cumulative impacts on biological resources.

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