



Alameda County Transportation Commission Rail Safety Enhancement Program – Oakland

Biological Resources Assessment

prepared for

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Executive Summary

This document provides the findings of a Biological Resources Assessment prepared by Rincon Consultants, Inc. for the proposed railroad safety improvements at 29th Avenue, 37th Avenue, 50th Avenue, and Fruitvale Avenue in the City of Oakland in Alameda County, California. The report documents existing conditions at the project sites and provides an assessment of potential impacts to sensitive biological resources based upon proposed project plans.

The biological study area for this analysis includes the project sites at the crossings of 29th Avenue, 37th Avenue, 50th Avenue, Fruitvale Avenue and the Union Pacific Railroad, plus a 50-foot buffer around each project site. The study area consists of the railroad tracks and associated infrastructure, paved roads, residential, commercial, and industrial buildings, and a small amount of ruderal land.

No special-status plant species have potential to occur within the study area. Four special-status wildlife species have some potential to occur within the study area. The American peregrine falcon (*Falco peregrinus anatum*, state fully protected) is the only state listed species with potential to occur (high potential) within the study area. No federally listed species have potential to occur within the study area.

No sensitive natural communities, jurisdictional waters, or essential wildlife corridors or habitat linkages occur within the study area.

1 Introduction

Rincon Consultants, Inc. (Rincon) prepared this Biological Resources Assessment (BRA) to document the existing biological conditions at four railroad crossings where safety improvements are planned in Oakland, California. This BRA is prepared with the intent of serving as the basis for suitable analysis of the potential impacts to biological resources pursuant to the California Environmental Quality Act (CEQA) and National Environmental Protection Act (NEPA) environmental review processes. The Alameda County Transportation Commission (Alameda CTC) is the lead agency under CEQA. The Federal Railroad Administration is the lead agency under NEPA.

1.1 Project Location and Study Area

The project sites consist of four existing at-grade Union Pacific Railroad (UPRR) crossings in the City of Oakland, in western Alameda County, California (Figure 1). The crossings are located in the western portion of Oakland in predominantly business, commercial, and light industrial areas. Rail safety improvements will be installed where the UPRR intersects with 29th Avenue, 37th Avenue, 50th Avenue, and Fruitvale Avenue. The 29th Avenue crossing is located at 37.777397 °W latitude and 122.230971 °N longitude, the 37th Avenue crossing is located at 37.772112 °W latitude and 122.223253 °N longitude, the 50th Avenue crossing is located at 37.765289 °W latitude and 122.213374 °N longitude, and the Fruitvale Avenue crossing is located at 37.774869 °W latitude and 122.227244 °N longitude. All four crossings are located in the *Oakland East, California* 7.5-minute United States Geological Survey (USGS) quadrangle. The study area for this project is defined as four project sites plus a 50-foot buffer around each site (Figure 2). All four crossings are located approximately 0.35 mile east of San Francisco Bay and are surrounded by a mixture of industrial, commercial, and residential sites.

Figure 1 Regional Location



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● Project Location



1. 29th Ave
2. Fruitvale Ave
3. 37th Ave
4. 50th Ave

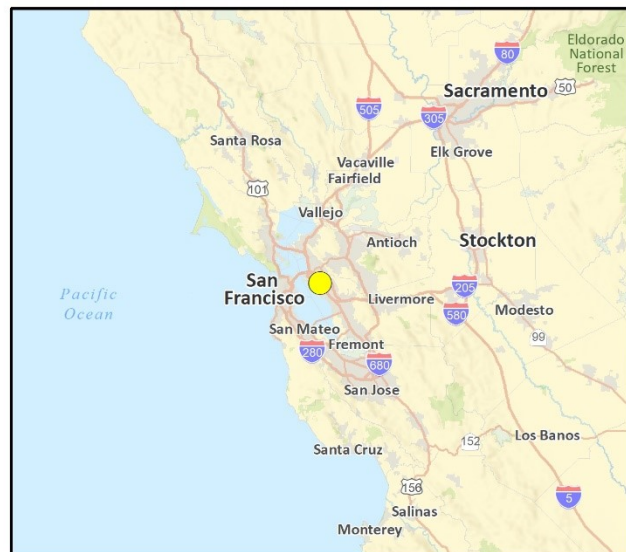


Fig 1 Regional Location_20221104

Figure 2a Project Location – 29th Avenue

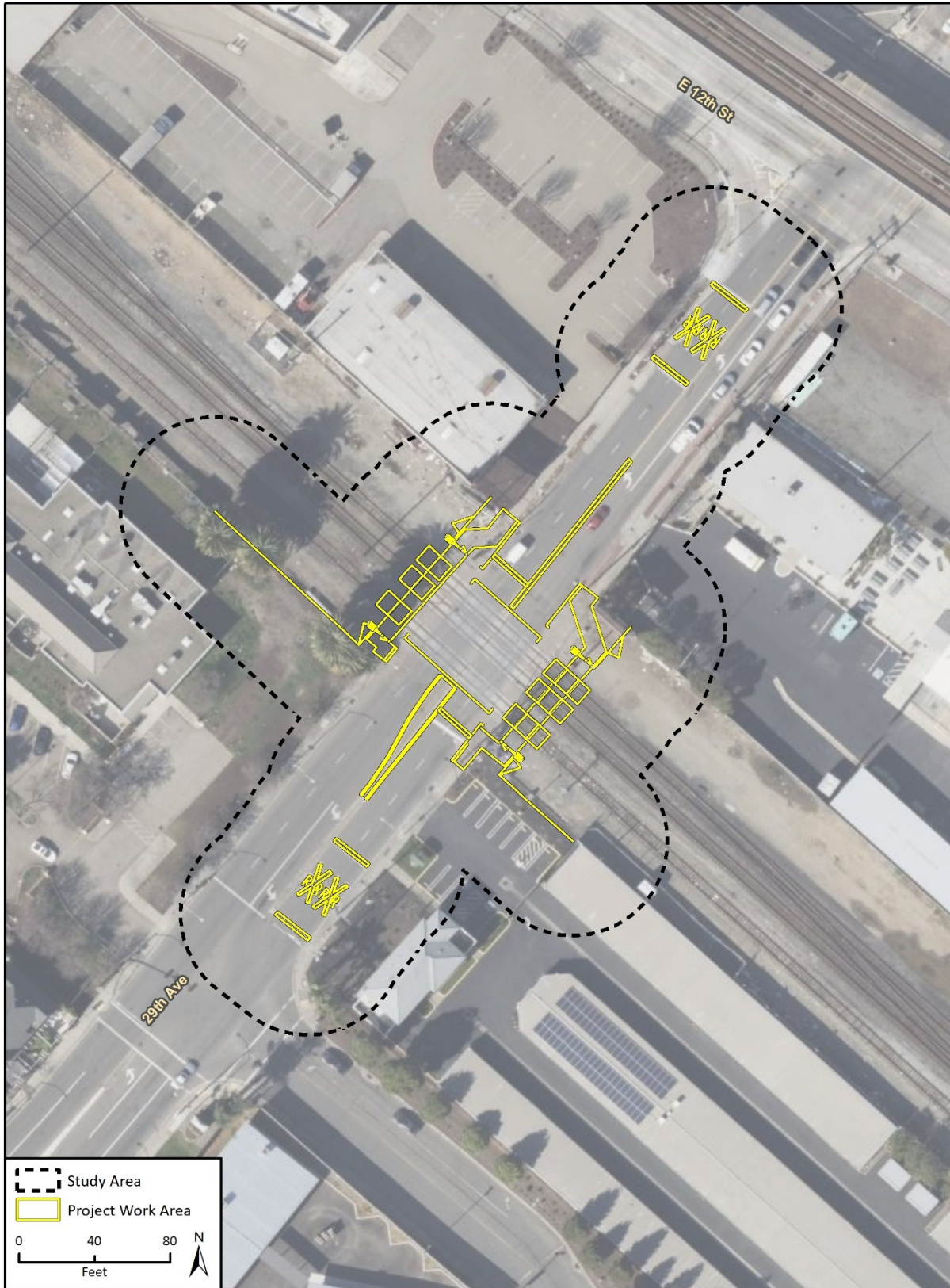
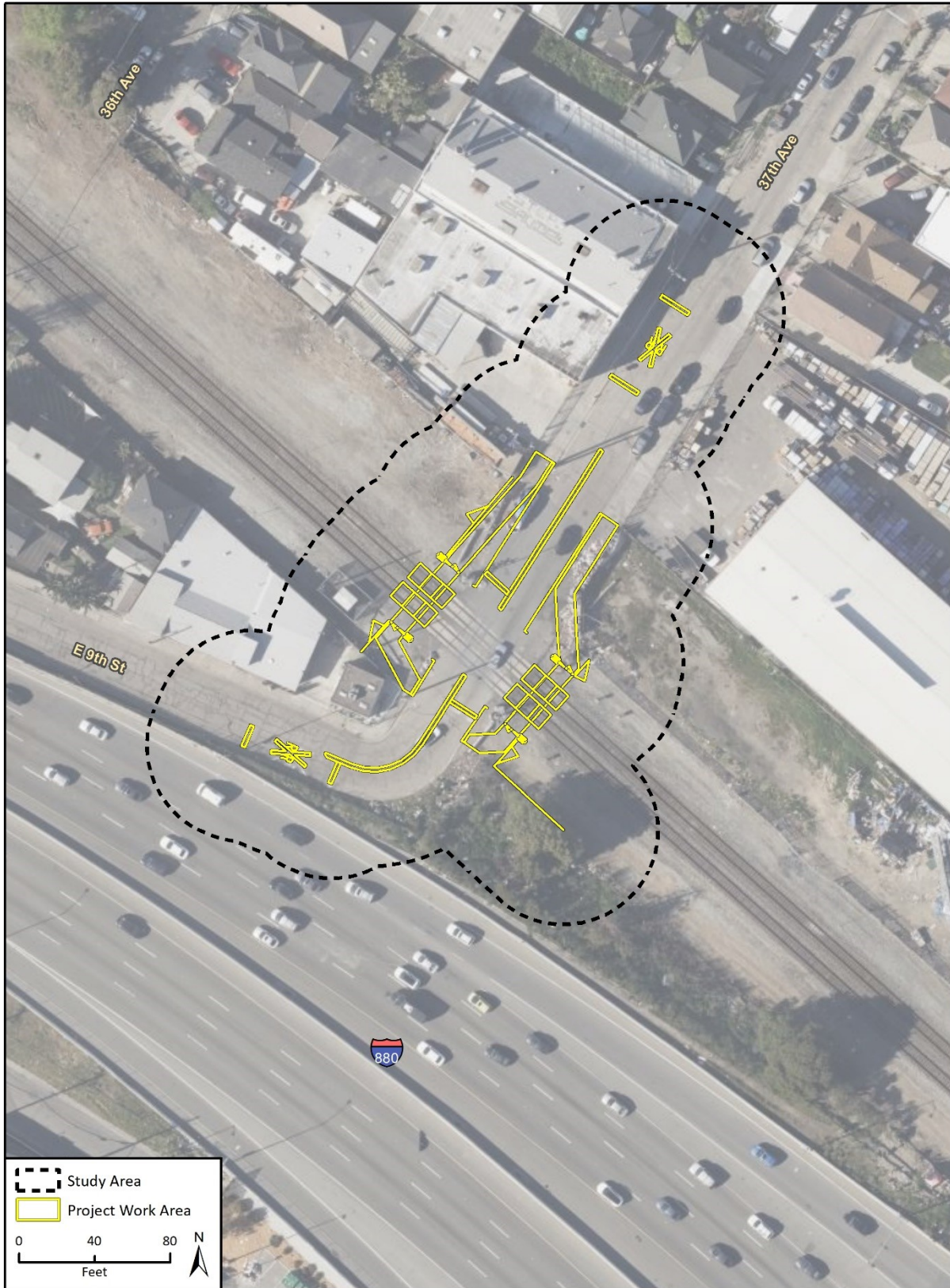


Figure 2b Project Location – 37th Avenue



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Figure 2c Project Location – 50th Avenue

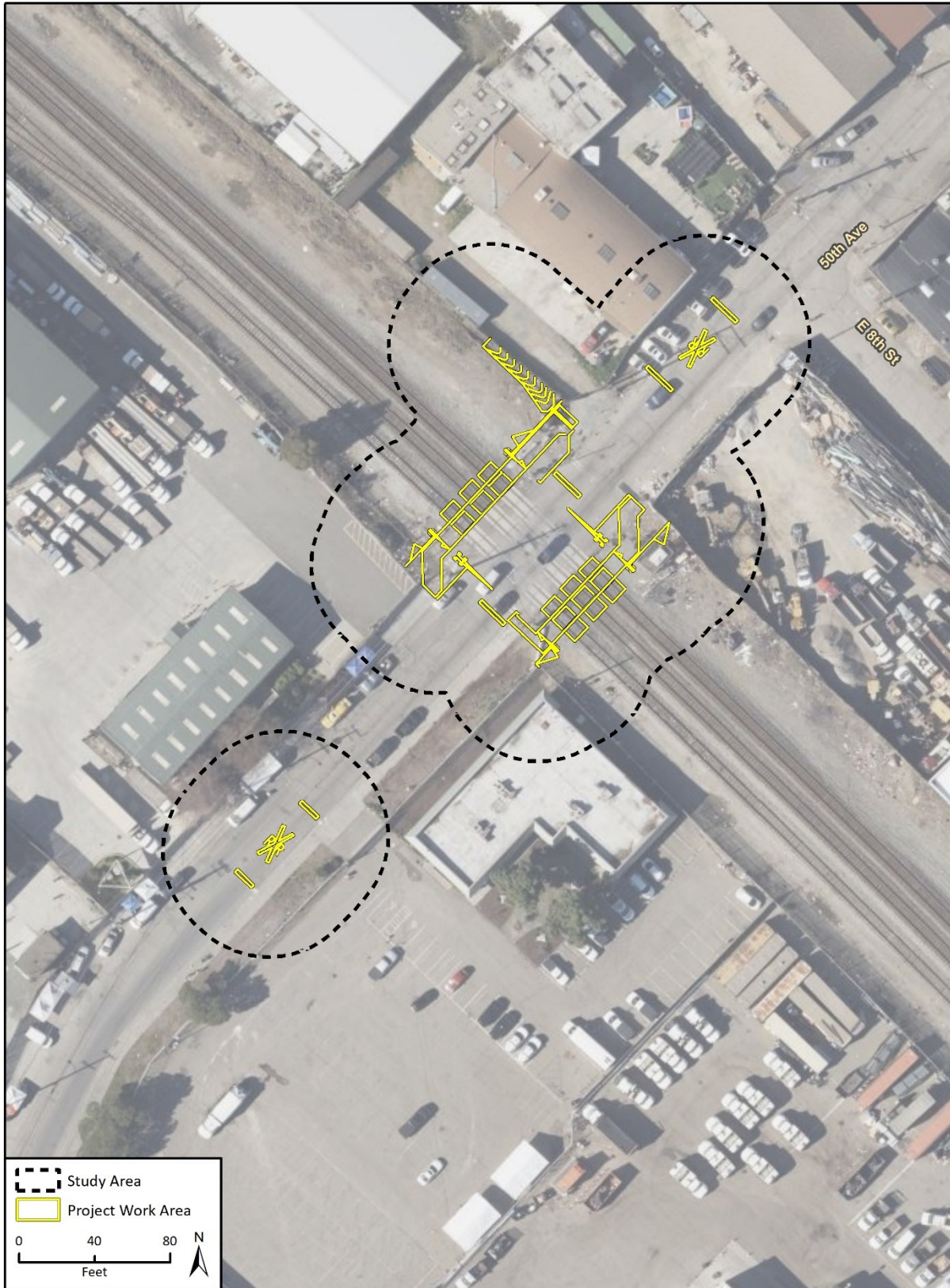


Figure 2d Project Location – Fruitvale Avenue



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1.2 Project Description

The project consists of rail safety improvements to four existing at-grade UPRR crossings in Oakland, California. The improvements are designed to increase safety for all motorists and pedestrians. This includes restricting access to UPRR tracks, improving signage, accessibility improvements, and other safety features. The proposed safety improvements at each railroad crossing are listed in Table 1.

Table 1 Proposed Railroad Safety Improvements

Intersection	Description	Excavation/Grading
29th Avenue	The following improvements are proposed: <ul style="list-style-type: none"> ▪ Remove portions of existing pavement/concrete. ▪ Remove existing overhead catenary system pole ▪ Install new security access gates/fencing, medians, pavement markings, pavement, roadside signs, ADA detectable pavers, warning devices, and “No Trespassing” signs 	Minor excavation and grading will be required to construct new pavement and curbs and gutters on the project site, to conform new sidewalks to existing, and to create new medians.
Fruitvale Avenue	The following improvements are proposed: <ul style="list-style-type: none"> ▪ Remove portions of existing sidewalk and existing pedestrian crossing light ▪ Install new pavement markings (including dynamic envelope markings), pavement, security access gates/fencing, delineators, warning devices, and “No Trespassing” signs 	Minor grading will be required to conform new sidewalks to existing.
37th Avenue	The following improvements are proposed: <ul style="list-style-type: none"> ▪ Remove portions of existing pavement/concrete ▪ Replace existing damaged fence ▪ Install new security access gates/fencing, medians, pavement markings, roadside signs, ADA detectable pavers, warning devices, and “No Trespassing” and “No Parking” signs 	Minor excavation and grading will be required to construct curbs and gutters on the project site, to conform new sidewalks to existing, and to create new medians.
50th Avenue	The following improvements are proposed: <ul style="list-style-type: none"> ▪ Remove portions of existing pavement/concrete and regrade surface ▪ Remove existing guard rail and signal foundation ▪ Install new headwall, curb and gutter, and drainage pipe ▪ Install new pavement markings, pavement, security access gates/fencing, warning devices, and “No Trespassing” signs 	Minor excavation and grading will be required to construct new pavement and regrade surface on the project site, install a new headwall, curbs and gutters, and drainage pipe, and to conform new sidewalks to existing.

ADA = Americans with Disabilities Act

2 Methodology

2.1 Regulatory Overview

Regulated or sensitive resources studied and analyzed herein include special-status plant and animal species, nesting birds, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, and locally protected resources, such as protected trees. Regulatory authority over biological resources is shared by federal, State, and local authorities. Primary authority for regulation of general biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, the City of Oakland).

2.1.1 Definition of Special-Status Species

For the purposes of this report, special-status species include:

- Species listed as candidate, threatened, or endangered under the federal Endangered Species Act (FESA). Species that are under review may be included if there is a reasonable expectation of listing within the life of the project;
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA);
- Species designated as fully protected, species of special concern, or watch list by the California Department of Fish and Wildlife (CDFW); and
- Species designated as locally important by the City of Oakland and/or otherwise protected through local ordinance or policy.

2.1.2 Environmental Statutes

For the purpose of this report, potential impacts to biological resources were analyzed based on the following statutes (Appendix A):

- CEQA
- FESA
- CESA
- Federal Clean Water Act (CWA)
- California Fish and Game Code (CFGC)
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act
- NEPA
- City of Oakland General Plan and Municipal Code
- San Francisco Bay Conservation and Development Commission Strategic Plan

2.1.3 Guidelines for Determining CEQA and NEPA Significance

The following threshold criteria, as defined by the *CEQA Guidelines Appendix G Initial Study Checklist*, were used to evaluate potential environmental effects. Based on these criteria, the proposed project would have a significant effect on biological resources if it would:

- a) *Have substantial adverse effects, 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, and regulations or by the California Department of Fish and Wildlife or US 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.*

NEPA provides an interdisciplinary framework for environmental planning by federal agencies and contains action-forcing procedures to ensure that federal agency decision makers take environmental factors into account. NEPA applies whenever a federal agency proposes an action, grants a permit, or agrees to fund or otherwise authorize any other entity to undertake an action that could possibly affect environmental resources. The Federal Railroad Administration is the lead agency under NEPA.

2.2 Literature Review

Rincon reviewed relevant agency databases and literature for baseline information on biological resources potentially occurring within the *Oakland West, California* USGS quadrangle and the eight surrounding USGS quadrangles (*Oakland East, Richmond, Briones Valley, San Leandro, Hunters Point, San Francisco South, San Francisco North, and San Quentin, California*). The review included information available in peer-reviewed journals, standard reference materials (e.g., Nafis 2022 and Sawyer et al. 2009), and agency and public databases containing occurrences for special-status biological resources, including the California Natural Diversity Database (CNDDDB) (CDFW 2022a), the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California (2022), eBird (Cornell Lab of Ornithology 2022a), the Biogeographic Information and Observation System (BIOS) (CDFW 2022b), and the U.S. Fish and Wildlife Service (USFWS) Information for Consultation and Planning (IPaC) site (USFWS 2022a). The USFWS Critical Habitat Portal (USFWS 2022b), the USFWS National Wetlands Inventory (NWI) (USFWS 2022c), the CDFW Special Animals List (CDFW 2022d), the CDFW Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2022e), and the CDFW Wildlife Habitat Relationship System (Zeiner et al. 1988-1990) were also reviewed for information regarding special-status species with potential to occur in the vicinity of the project

sites. Additionally, Rincon reviewed aerial photographs, topographic maps, soil survey maps, geologic maps, and climatic data for the project site and regional vicinity.

2.3 Field Reconnaissance Survey

Rincon biologist William Lawton conducted a reconnaissance-level field survey of the study area on October 9, 2022, between the hours of 0755 and 1145. The temperature was 64 degrees Fahrenheit (°F) and mostly sunny with winds up to 2 miles per hour. A pedestrian survey of the project site plus a 50-foot buffer was conducted to assess the habitat suitability for potential special-status flora and fauna, and to document all plant and wildlife species observed.

Additionally, Mr. Lawton evaluated the general health and level of existing disturbance to vegetation communities and documented any sign of the presence of special-status species within the proposed project boundary. Results of the survey were used to identify suitable habitat for special-status species that may require focused protocol surveys or other more involved analyses, and to develop an approach for evaluating and mitigating potential impacts to existing biological resources on the project site.

The survey focused on documenting existing conditions and biological resources, evaluating the project site for potential to support special-status plants and wildlife species, special-status vegetation communities, and potentially jurisdictional resources. Focused protocol surveys for individual species were not conducted. Prior to the reconnaissance survey, Rincon biologists reviewed aerial photographs and database search results for special-status species records in the vicinity of the project.

Representative photographs were taken to document existing conditions, vegetation communities, species sign, or other notable biological resource observations. Site photographs are included in Appendix B. A list of all plant and wildlife species observed during the field reconnaissance survey is included in Appendix C.

3 Existing Conditions

3.1 Physical Characteristics

The study area is located in the City of Oakland, approximately 0.4 mile east of San Francisco Bay. The climate in this region is generally mild and temperate and the majority of rainfall occurs during the winter months. Due to the coastal location, fog and cool temperatures are common in the summer months. The average annual high temperature is 65.2 °F and the average annual low temperature is 49°F. Average annual precipitation is 26.7 inches (Western Regional Climate Center 2022). The study area consists primarily of paved and developed urban Avenues and railroad crossings. Elevations within the study area range from approximately 5 to 36 feet (1.5 to 10.9 meters) above mean sea level.

3.1.1 Watershed and Drainages

All four crossings occur within the Sausal Creek-Frontal San Francisco Bay Estuaries Watershed (HUC: 180500040805) (US EPA 2022a).

No waterways or drainages exist within the study area. San Francisco Bay is located just west of the study area.

San Francisco Bay is classified in the NWI as Estuarine and Marine Deepwater habitat (Estuarine [E], Subtidal [1], Unconsolidated Bottom [UB], and Subtidal [L]) (USFWS 2022c). San Francisco Bay is located approximately 0.42 mile west of the 29th Avenue crossing, approximately 0.34 mile west of the 37th Avenue crossing, approximately 0.39 mile west of the 50th Avenue crossing, and approximately 0.36 mile west of the Fruitvale Avenue crossing.

3.1.2 Soils

One soil map unit occurs within the study area: Urban Land (USDA 2022a). This soil type refers to soils in developed areas that may be significantly altered by human-transported materials and usually contain a high number of impervious surfaces such as buildings and pavement.

3.2 Vegetation and Other Land Cover

Vegetation community characterizations for this analysis were based on the classification systems presented in *A Manual of California Vegetation, Second Edition* (Sawyer et al. 2009) but have been modified slightly to most accurately reflect existing site conditions. *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) is still used for reference and historical perspective, though its classifications are no longer supported by the State of California and have been superseded by Sawyer et al. 2009. Plant species nomenclature and taxonomy used for this BRA follow the treatments within the second edition of *The Jepson Manual* (Baldwin et al. 2012).

No intact natural vegetation communities were identified within the study area. Three land cover types were identified within the study area during the field reconnaissance survey: developed, landscaped, and ruderal (Figure 3). The 29th Avenue, 37th Avenue, 50th Avenue, and Fruitvale Avenue crossings all contain portions of developed, landscaped, and ruderal areas (Figure 3a-3d). More detailed descriptions of these land cover types within the study area are provided below.

Appendix C provides a complete list of plant species observed during the field reconnaissance survey.

Developed

This land cover type is not naturally occurring and is not described in either the Holland (1986) or Sawyer et al. (2009) classification systems. This land cover type consists of areas that have been modified such that most or all vegetation has been removed or only small areas of landscaped or ruderal vegetation are present. Within the study area, this land cover type consists of paved roads, UPRR railroad tracks, infrastructure associated with UPRR crossings, and industrial, commercial, and residential buildings.

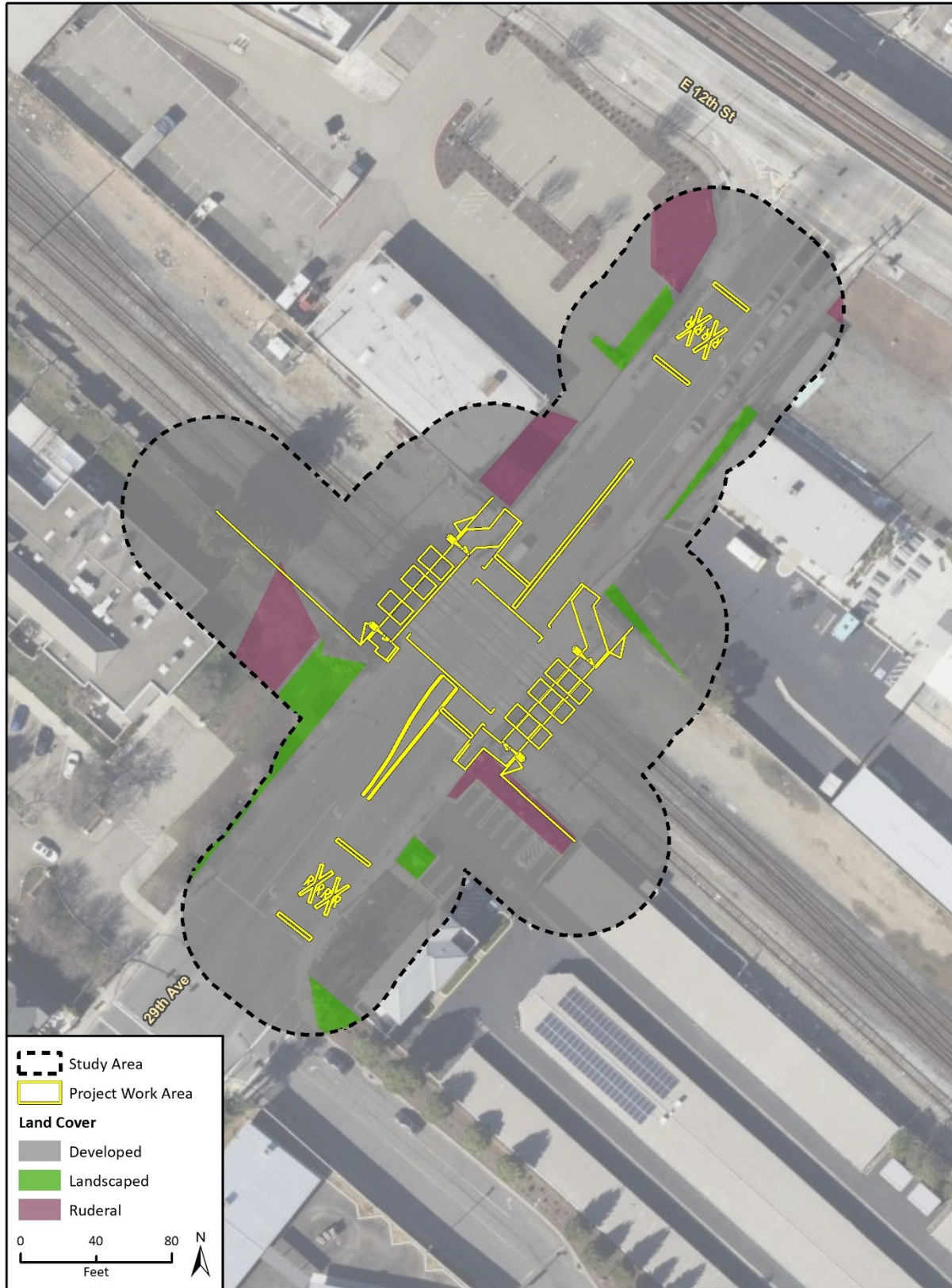
Landscaped

This land cover type is not naturally occurring and is not described in either the Holland (1986) or Sawyer et al. (2009) classification systems. Plant species found in this land cover type typically consist of either non-native ornamental species or planted native species that do not exist as part of a natural community. Within the study area, this land cover type consists of ornamental shrubs and trees, including cherry plum (*Prunus cerasifera*) and society garlic (*Tulbaghia violacea*).

Ruderal

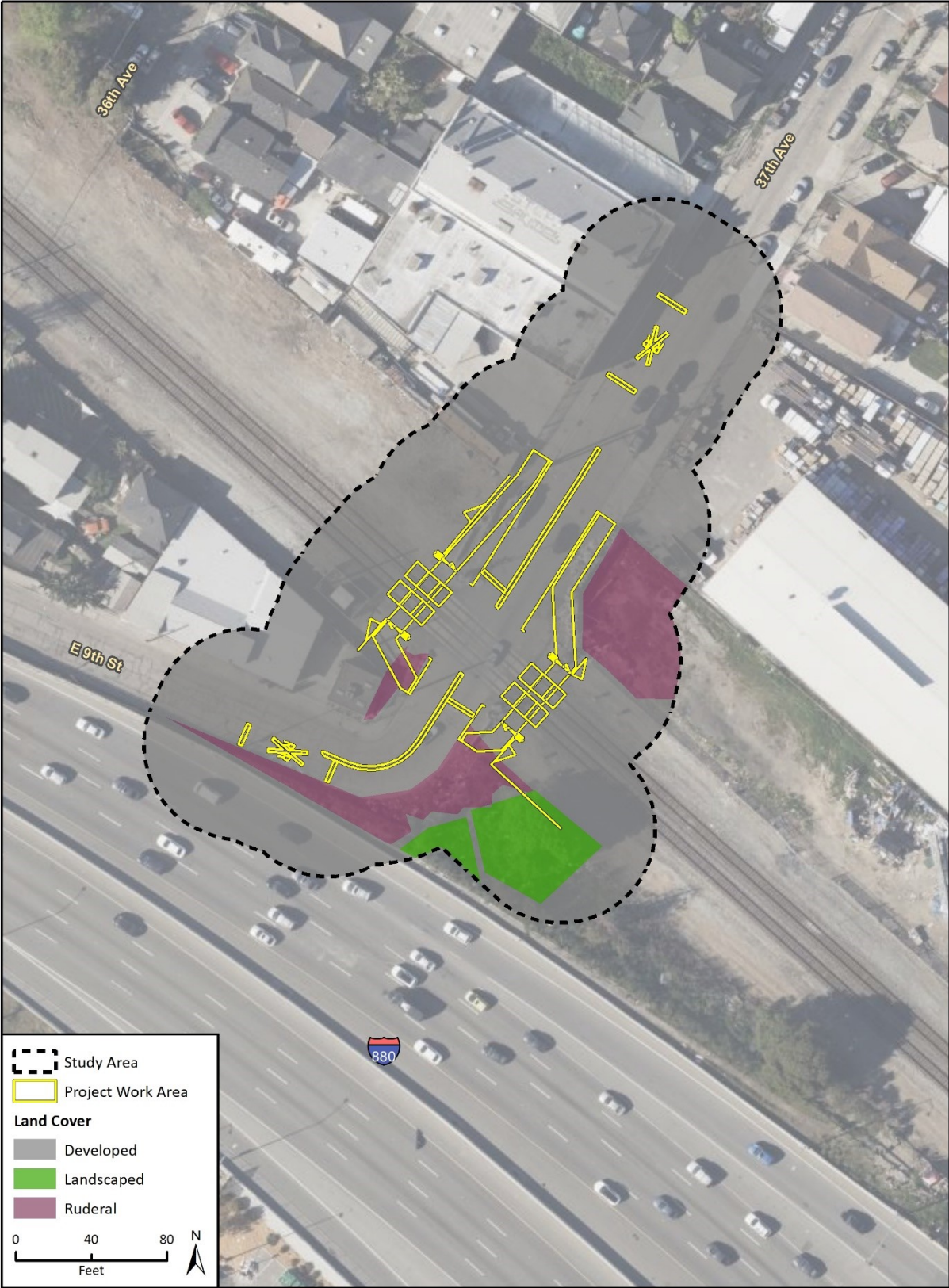
This land cover type consists of habitats that have been heavily disturbed or altered such that natural vegetation has largely been removed. These sites do not correspond well with either the Holland (1986) or Sawyer et al. (2009) classification systems. Within the study area, ruderal land cover includes species such as wild radish (*Raphanus raphanistrum*), bristly oxtongue (*Helminthotheca echioides*), and sow thistle (*Sonchus* sp.).

Figure 3a Land Cover Types – 29th Avenue



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Figure 3b Land Cover Types – 37th Avenue



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Figure 3c Land Cover Types – 50th Avenue

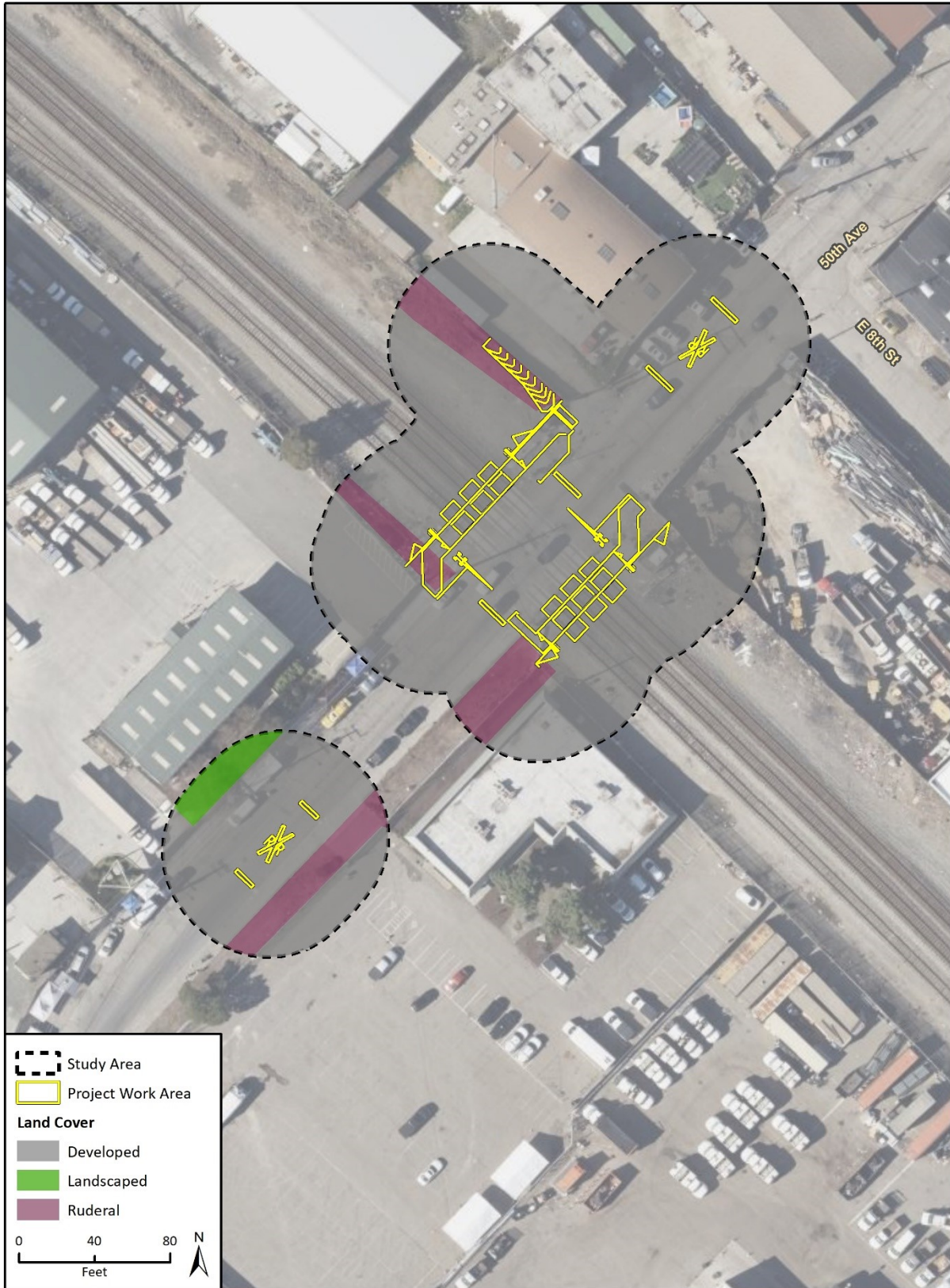
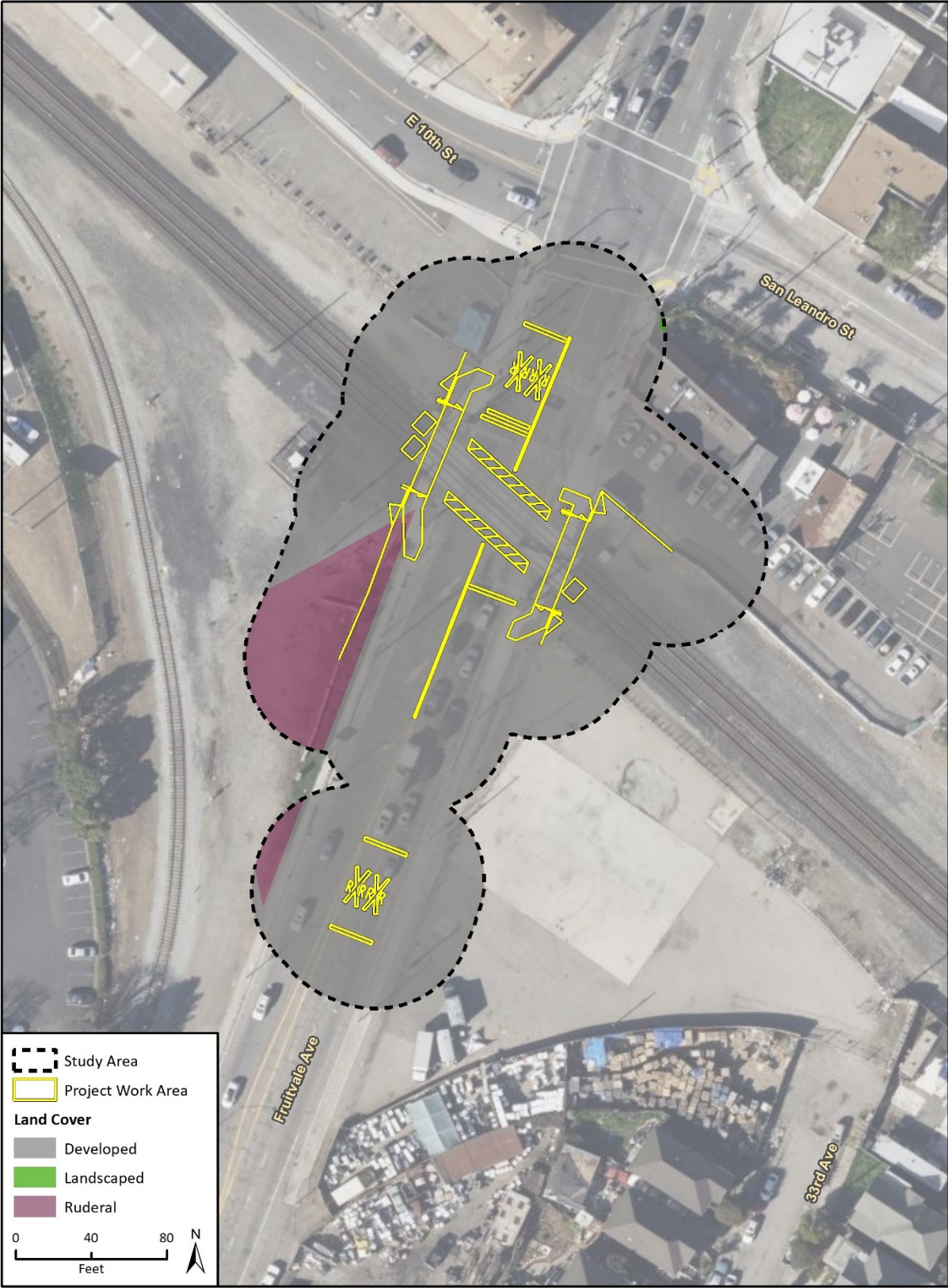


Figure 3d Land Cover Types – Fruitvale Avenue



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3.3 General Wildlife

Wildlife observed within the study area during the field reconnaissance survey consisted of bird and reptile species commonly found in urban areas. Bird species observed include the introduced rock pigeon (*Columba livia*) and the native American crow (*Corvus brachyrhynchos*) and bushtit (*Psaltriparus minimus*). Reptile species observed include the western fence lizard (*Sceloporus occidentalis*) and gopher snake (*Pituophis catenifer*). A complete list of wildlife species observed during the field reconnaissance survey is provided in Appendix C.

4 Sensitive Biological Resources

Local, State, and federal agencies regulate special-status species and other sensitive biological resources and require an assessment of their presence or potential presence to be conducted on-site prior to the approval of proposed development on a property. This section discusses sensitive biological resources observed on the project site and evaluates the potential for the project site to support additional sensitive biological resources. Assessments for the potential occurrence of special-status species are based upon known ranges, habitat preferences for the species, occurrence records from observation databases, including the CNDDDB and eBird, species occurrence records from other sites in the vicinity of the survey area, previous reports for the study area, and the results of surveys of the study area. The potential for each special-status species to occur in the study area was evaluated according to the following criteria:

- **Not Expected.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable on-site if present (e.g., oak trees). Protocol surveys (if conducted) did not detect species.
- **Low Potential.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site. Protocol surveys (if conducted) did not detect species.
- **Moderate Potential.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- **Present.** Species is observed on the site or has been recorded (e.g., CNDDDB, other reports) on the site recently (within the last 5 years).

The following USFWS criteria were also used to determine the potential for the proposed project to affect federally protected species with potential to occur in the vicinity of the study area:

- **"No effect"** means there will be no impacts, positive or negative, to listed or proposed resources. Generally, this means no listed resources will be exposed to action and its environmental consequences. Concurrence from the USFWS is not required.
- **"May affect, but is not likely to adversely affect"** means that all effects are beneficial, insignificant, or discountable. Beneficial effects have contemporaneous positive effects without any adverse effects to the species or habitat. Insignificant effects relate to the size of the impact and include those effects that are undetectable, not measurable, or cannot be evaluated. Discountable effects are those extremely unlikely to occur. These determinations require written concurrence from the USFWS.
- **"May affect, and is likely to adversely affect"** means that listed resources are likely to be exposed to the action or its environmental consequences and will respond in a negative manner to the exposure.

4.1 Special-Status Species

Rincon evaluated 47 special-status plant species and 59 special-status wildlife species for their potential to occur within the study area (Appendix D). A list of all wildlife and plant species observed during the field reconnaissance survey can be found in Appendix C.

4.1.1 Special-Status Plant Species

Rincon evaluated 47 special-status plant species for their potential to occur within the study area (Appendix D). No special-status plant species have potential to occur within the project site due to the absence of suitable habitats (i.e., cismontane woodland, valley and foothill grassland, chaparral, vernal pools), the lack of suitable soils (i.e., serpentine, alkaline) and the developed and disturbed nature of the project site and immediate vicinity. No special-status plant species were observed during the field reconnaissance survey in October 2022, and no special-status plants are expected to occur within the study area.

4.1.2 Special-Status Animal Species

Rincon evaluated 43 special-status wildlife species for their potential to occur within the study area (Appendix D). Of these, five special-status species have a low potential to occur, and one special-status species has a high potential to occur. The remaining 37 special-status wildlife species evaluated are not expected to occur in the study area or immediate vicinity based on the absence of riparian, grassland, woodland, scrub, vernal pool, or other suitable natural habitats or vegetation communities, and/or because the range of the species does not overlap with the study area (Appendix D). No federally listed species have potential to occur within the study area. For the purposes of CEQA analysis, special-status wildlife species that are present within the study area, or have a moderate or high potential to occur, are listed in Table 2 and are discussed in further detail below.

Table 2 Special-Status Wildlife Species with Potential to Occur within the Study Area

Common Name	Scientific Name	Status	Potential to Occur
American peregrine falcon	<i>Falco peregrinus anatum</i>	FD/SD/FP	Present
FD = Federally Delisted	SD = State Delisted	FP = State Fully Protected	

American Peregrine Falcon

The American peregrine falcon is a federal and state delisted species and a state fully protected species that occurs in urban areas and open habitats, including coastlines, mudflats, lake edges, and mountain sides (Cornell Lab of Ornithology 2022b). American peregrine falcon populations were nearly exterminated from 1940-1970 due to wide-spread use of organochlorine pesticides. In 1970, the species was listed as federally endangered and conservation efforts began. Following the ban of the pesticide DDT and the implementation of captive breeding programs, American peregrine falcon populations have rebounded, and the species was delisted in 1999 (Center for Biological Diversity 2022). Prey includes a wide variety of bird species and nest sites are typically in rocky cliffs faces, but can also be located on transmission towers, skyscrapers, bridges, or other human-made structures (Cornell Lab of Ornithology 2022b).

For over a decade, a pair of American peregrine falcons have nested on the Fruitvale Railroad Bridge that spans between the cities of Alameda and Oakland, located approximately 0.5 mile to the west

of the project site. Multiple recent occurrences of the species are documented in eBird within 5 miles of the study area (Cornell Lab of Ornithology 2022a). No suitable nesting habitat exists within the study area, though there is a low potential for the species to nest on buildings within 500 feet of the project site. The American peregrine falcon has high potential to forage in the study area.

4.1.3 Nesting Birds

Non-game migratory birds protected under the MBTA and CFGC have the potential to breed and forage within the study area. Suitable nesting habitat within the study area could include human-made structures, shrubs, and trees.

4.2 Sensitive Natural Communities and Critical Habitats

No sensitive natural communities or critical habitats occur within the study area.

4.3 Jurisdictional Waters and Wetlands

No jurisdictional waters or wetlands occur within the study area. San Francisco Bay is located approximately 0.42 mile east of the 29th Avenue crossing, approximately 0.35 mile east of the Fruitvale Avenue crossing, approximately 0.33 mile east of the 37th Avenue crossing, and approximately 0.36 mile east of the 50th Avenue crossing.

4.4 Wildlife Movement

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network. The California Essential Habitat Connectivity Project commissioned by the California Department of Transportation (Caltrans) and CDFW; identifies “Natural Landscape Blocks” which support native biodiversity and the “Essential Connectivity Areas” which link them (Spencer et al. 2010).

The study area is in a developed urban area with an active railway and substantial vehicular traffic. No Essential Connectivity Areas or Natural Landscape Blocks occur within the study area. An Essential Connectivity Area occurs approximately 2.91 miles to the east of the study area, and a Natural Landscape Block exists approximately 3.36 miles to the east of the study area (Spencer et al. 2010). While wildlife species acclimated to urban environments (e.g., coyotes, raccoons) have the potential to occasionally pass through the study area or use the railroad tracks for dispersal, the study area does not provide a significant migratory or dispersal corridor for wildlife species due to the developed nature of the area and frequent disturbance from trains and vehicles.

4.5 Resources Protected by Local Policies and Ordinances

Project activities are subject to the City of Oakland General Plan and Municipal Code.

The City of Oakland General Plan: Open Space, Conservation and Recreation Element establishes policies that address the management of open land, natural resources, and parks. Chapter 3 of this element addresses the conservation of biological resources.

Oakland Municipal Code regulates the removal of trees within the city (Chapter 12.36).

A list of the City of Oakland General Plan policies and Municipal Code chapters that pertain to biological resources can be found in Appendix A.

4.6 Adopted or Approved Plans

The study area does not fall within the boundaries of any adopted Habitat Conservation Plan or Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The San Francisco Bay Conservation and Development Commission Strategic Plan includes ongoing goals and short-term objectives to protect and enhance San Francisco Bay and encourage responsible and productive use and development of the bay and surrounding land. The project sites lie within 0.4 mile of San Francisco Bay but do not fall within the San Francisco Bay area of tidal action or within 100-feet of the high tide line and are therefore not within the jurisdictional area of the San Francisco Bay Conservation and Development Commission.

5 Impact Analysis and Mitigation Measures

This section discusses the potential impacts and effects to special-status species and sensitive biological resources that may occur from implementation of the project and provides recommended mitigation measures that would reduce those impacts where applicable. The analysis and recommendations are based on the *CEQA Guidelines Appendix G Initial Study Checklist*, as well as the USFWS guidance for determining the effects of a proposed action to federally protected species.

5.1 Special-Status Species

The proposed project would have a significant effect on biological resources if it 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.*

5.1.1 Special-Status Plant Species

No special-status plant species are expected to occur within the study area. Therefore, no impacts to special-status plant species are anticipated. The project is expected to have **no effect** on any federally protected plant species.

5.1.2 Special-Status Wildlife Species

One special-status wildlife species and nesting birds have potential to occur within the study area. No federally listed wildlife species have potential to occur. Therefore, the project is expected to have **no effect** on any federally listed wildlife species. For the purposes of CEQA analysis, potential impacts of project implementation to each of the special-status wildlife species that are present within the study area, or have a moderate or high potential to occur, are discussed in further detail below. Recommended avoidance and mitigation measures for reducing potential effects to less than significant are also provided.

American Peregrine Falcon

One special-status species has potential to occur within the study area; the American peregrine falcon (federally delisted, state delisted, CDFW fully protected) has a high potential to occur on-site. No suitable nesting habitat for the American peregrine falcon exists within the study area. There is a low potential for the species to nest on buildings within 500 feet of the project sites. Should this species be present on-site during construction, direct impacts could include injury or mortality of individuals. Indirect impacts could include disturbance of nesting behavior or habitat. Mitigation Measure BIO-1 includes recommendations for reducing potential impacts to this special-status species to less than significant.

5.1.3 Nesting Birds

Nesting special-status bird species and other nesting birds protected under the MBTA and CFGC have potential to occur throughout the study area during the nesting season (February 1 to

September 15). Suitable nesting habitat within the study area and immediate vicinity could include human-made structures, the ground surface, shrubs, and trees. CFGC protects all nesting birds, including non-natives. Should nesting birds be present within the project sites during construction, direct impacts could include the destruction of nests or the disturbance of nesting behavior. Indirect impacts to nesting birds could include the destruction or disturbance of nesting habitat. Mitigation Measure BIO-1 provides recommendations for reducing impacts to nesting birds to less than significant.

BIO-1 Pre-Construction Survey and Impact Avoidance for Raptors and Other Nesting Birds

Ground-disturbing activities should be restricted to the non-breeding season (September 1 to January 31) when feasible. If construction activities occur during the nesting bird season (February 1 to August 31), the following mitigation measures are recommended to reduce impacts to nesting special-status avian species, and other nesting birds protected by CFGC and the MBTA:

- A pre-construction nesting bird survey should be conducted by a qualified biologist no more than 7 days prior to initiation of ground disturbance and vegetation removal. The survey area should include all work areas and, at a minimum, a 150-foot buffer for passerines and a 500-foot buffer for raptors.
- If nests are found, an appropriate avoidance buffer will be determined and demarcated by the qualified biologist with high-visibility material. Avoidance buffers should be established based on the nesting species, the nest location in relation to project activity, the line-of-sight from the nest to the project activity and observed behavior at the nest.
- All construction personnel should be notified as to the existence of the buffer zones and to avoid entering buffer zones during the nesting season. No ground-disturbing activities should occur within the buffer until the qualified biologist has confirmed that breeding/nesting is complete, and the young have fledged the nest. Encroachment into the buffer should occur only at the discretion of the qualified biologist.

5.2 Sensitive Natural Communities and Critical Habitats

The proposed project would have a significant effect on biological resources if it would:

- b) Have a substantial adverse impact 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 US Fish and Wildlife Service.*

No sensitive natural communities, riparian habitat, or federally designated critical habitats are present within the study area and no impacts are expected.

5.3 Jurisdictional Waters and Wetlands

The proposed project would have a significant effect on biological resources if it would:

- 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.*

No jurisdictional waters or wetlands occur within the study area no direct impacts are anticipated. Indirect impacts from project activities could occur if sediment or pollutants were allowed to enter nearby waters of the San Francisco Bay and its associated wetlands. Mitigation Measure BIO-2 includes recommendations for preventing impacts to nearby jurisdictional areas.

BIO-2 Mitigation Measures for Waters and Wetlands

At a minimum, the following best management practices will be implemented on-site during and following construction to prevent any indirect impacts to waters and wetlands:

1. Vehicles and equipment should be checked at least daily for leaks and maintained in good working order. Spill kits should be available on-site at all times and a spill response plan should be developed and implemented.
2. Sediment and erosion control measures (e.g., sand or gravel bags, hay bales, check dams) should be implemented and maintained throughout the project site to prevent the entry of sediment and/or pollutants into any waterways or jurisdictional areas. No monofilament plastic will be used for erosion control.

5.4 Wildlife Movement

The proposed project would have a significant effect on biological resources if it would:

- d) *Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.*

The proposed project sites are in a developed urban area, at the crossings of an active railway and paved city Avenues. No Essential Connectivity Areas or Natural Landscape Blocks occur within the study area (Spencer et al. 2010). Project activities are not expected to interfere substantially with the movement of any wildlife species or to impede the use of wildlife corridors or wildlife nursery sites. Therefore, no significant impacts to wildlife movement are expected.

5.5 Local Policies and Ordinances

The proposed project would have a significant effect on biological resources if it would:

- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance*

Project activities are subject to the City of Oakland General Plan and Municipal Codes.

The City of Oakland General Plan: Open Space, Conservation and Recreation Element establishes policies for the management and conservation of the city’s natural resources. Protected resources include water, and plants and animals (Chapter 3, section 3-12 and 3-22 respectively).

Impacts to waterways from project activities are not anticipated. Mitigation Measure BIO-2 includes recommendations for reducing any potential impacts to water quality.

Oakland Municipal Code 12.36 requires project to obtain a tree removal permit if any project activities would require the removal of a large tree. If the project needs to obtain a tree removal permit, the project will be subject to all tree removal regulations required by Oakland Municipal Code. Following these regulations will ensure the project does not conflict with any local policies or ordinances protecting any biological resources.

5.6 Adopted or Approved Plans

The proposed project would have a significant effect on biological resources if it would:

- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.*

The study area does not fall within the boundaries of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The San Francisco Bay Conservation and Development Commission Strategic Plan includes policies to protect and enhance San Francisco Bay and regulate development within and around the bay. The project sites do not fall within the San Francisco Bay area of tidal action or within 100-feet of the high-tide line and are therefore not under the jurisdiction of the San Francisco Bay Conservation and Development Commission. Project activities will occur within previously developed areas at least 0.34 mile from the San Francisco Bay. Mitigation Measure BIO-2 includes recommendations for reducing any potential impacts to water quality within the San Francisco Bay.

The project is not expected to conflict with the provisions of any adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.

6 Limitations, Assumptions, and Use Reliance

This BRA has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. Reconnaissance biological surveys for certain taxa may have been conducted as part of this assessment but were not performed during a particular blooming period, nesting period, or particular portion of the season when positive identification would be expected if present, and therefore, cannot be considered definitive. The biological surveys are limited also by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis or re-establish populations in the future. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, review of CNDDDB RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDDB, may vary with regard to accuracy and completeness. In particular, the CNDDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

7 References

- Alameda County. 1976 (amended 1994). Conservation Element of the Alameda County General Plan. Adopted by the Alameda County Board of Supervisors on November 3, 1976. Amended on May 5, 1994.
- Baldwin, B.G. (Ed.), D.H. Goldman (Ed.), D. J. Keil (Ed.), R. Patterson (Ed.), T. J. Rosatti (Ed.), D. H. Wilken (Ed.). 2012. *The Jepson Manual: Vascular Plants of California*, Second Edition, Thoroughly Revised and Expanded. University of California Press. Berkeley, California.
- Oakland, City of. General Plan. Open Space Conservation and Recreation Element. Available at: <https://www.oaklandca.gov/topics/city-of-oakland-general-plan>. Accessed November 2022
- _____. Oakland Municipal Code. City of Oakland. Updated January 2021. Available at: <https://www.oaklandca.gov/resources/oakland-municipal-code>
- Bowers, N., R. Bowers, & K. Kaufman. 2004. *Mammals of North America*.
- Burt, W.H., and R.P. Grossenheider. 1980. *A Field Guide to the Mammals of North American North of Mexico*. The Peterson Field Guide Series.
- Calflora. 2022. Information on wild California plants for conservation, education, and appreciation. Berkeley, California. Updated online and accessed via: www.calflora.org.
- California Department of Fish and Game. 1994. Staff Report regarding Mitigation for Impacts to Swainson’s Hawks (*Buteo swainsoni*) in the Central Valley of California. November 8, 1994.
- California Department of Fish and Wildlife (CDFW). 2020. California Sensitive Natural Communities List. Biogeographic Data Branch, California Natural Diversity Database. September 2020.
- _____. 2022a. California Natural Diversity Database (CNDDDB), Rarefind V. Accessed November 2022.
- _____. 2022b. Biogeographic Information and Observation System (BIOS). Available at: www.wildlife.ca.gov/data/BIOS. Accessed November 2022.
- _____. 2022c. Natural Community Conservation Planning Program. California Regional Conservation Plans Map. Available at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline>. Accessed November 2022.
- _____. 2022d. Special Animals List. Biogeographic Data Branch, California Natural Diversity Database. February 2022.
- _____. 2022e. Special Vascular Plants, Bryophytes, and Lichens List. Biogeographic Data Branch, California Natural Diversity Database. January 2022.
- California Native Plant Society (CNPS). 2022. Inventory of Rare and Endangered Plants. V.7-08c-Interim 8-22-02. Updated online and accessed via: www.rareplants.cnps.org. Accessed November 2022.
- California State University, Stanislaus (CSU Stanislaus). 2022. Department of Biological Sciences. Endangered Species Recovery Program website. Updated online and available at: <https://esrp.csustan.edu>. November May 2022.
-

- Center for Biological Diversity. 2022. Species Profile Pages-American Peregrine Falcon. Available at: https://www.biologicaldiversity.org/campaigns/esa_works/profile_pages/AmericanPerigrineFalcon.html
- Cornell Lab of Ornithology. 2022a. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. <http://www.ebird.org>. Accessed November 2022.
- _____. 2022b. "All About Birds." Updated online and accessed at: <https://www.allaboutbirds.org/>. Accessed November 2022.
- England, A.S., M.J. Bechard, and C.S. Houston. 1997. Swainson's Hawk (*Buteo swainsoni*). In: A. Poole and F. Gill (eds.), The Birds of North America, No. 265. The Academy of Natural Sci., Philadelphia, Pennsylvania, and The American Ornithologists' Union, Washington, D.C.
- Holland, Robert F. 1986. "Preliminary Descriptions of the Terrestrial Natural Communities of California." California Department of Fish and Wildlife, Nongame Heritage Program. 156 pgs.
- Nafis, G. 2022. "California Herps-A Guide to the Amphibians and Reptiles of California." Updated online and accessed via: <http://www.californiaherps.com>. Accessed November 2022.
- Sawyer, J. O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation*, Second Edition. California Native Plant Society. Sacramento, California.
- Spencer, W.D., P. Beier, K. Penrod, K. Winters, C. Paulman, H. Rustigian-Romsos, J. Strittholt, M. Parisi, and A. Pettler. 2010. "California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California." Prepared for California Department of Transportation, California Department of Fish and Game, and Federal Highways Administration.
- Stebbins, R. C. 2003. *A Field Guide to Western Reptiles and Amphibians*. 2nd ed. Houghton-Mifflin Company. Boston, Massachusetts.
- Trenham, P.C., and H.B. Shaffer. 2005. Amphibian upland habitat use and its consequences for population viability. *Ecological Applications*. 15:1158–1168.
- United States Department of Agricultural (USDA), Natural Resources Conservation Service. 2022a. "Web Soil Survey." Available at: <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed November 2022.
- _____. 2022b. "Lists of Hydric Soils." National Cooperative Soil Survey, U.S. Department of Agriculture. Available at: <https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/>. Accessed November 2022.
- United States Environmental Protection Agency (US EPA). 2022a. How's My Waterway online portal. Available at: <https://mywaterway.epa.gov/community>. Accessed November 2022.
- _____. 2022b. "Endangered Species Facts: San Joaquin Kit Fox." Available at: <https://www.epa.gov/sites/production/files/2013-08/documents/san-joaquin-kitfox.pdf>. Accessed November 2022.
- United States Fish and Wildlife Service (USFWS). 1973. The Endangered Species Act of 1973, as amended (16 U.S.C 1531 et seq.).
- _____. 2002. "Recovery Plan for the California Red-Legged Frog (*Rana aurora draytonii*)." Region 1, U.S. Fish and Wildlife Service. Portland, Oregon.

Alameda County Transportation Commission Rail Safety Enhancement Program – Oakland

_____. 2022a. Information for Planning and Consultation online Project planning tool. Available at: <https://ecos.fws.gov/ipac/>. Accessed November 2022.

_____. 2022b. Critical Habitat Portal. Available at: <https://ecos.fws.gov/ecp/report/table/critical-habitat.html>. Accessed November 2022.

_____. 2022c. National Wetlands Inventory (NWI) mapper. Available at: <https://www.fws.gov/wetlands/data/mapper.html>. Accessed November 2022.

United States Geological Survey (USGS). 2022. National Hydrography Dataset. Available at: <https://www.usgs.gov/core-science-systems/ngp/national-hydrography>. Accessed November 2022.

Western Regional Climate Center. 2022. Accessed at: <https://wrcc.dri.edu>. Accessed November 2022.

Zeiner, D., W.F. Laudenslayer, Jr., and K.E. Mayer. 1988-1990. California's Wildlife. California Statewide Wildlife Habitat Relationship System, Volumes I, II, & III. California Department of Fish and Game. Sacramento, California.

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Appendix A

Regulatory Setting

Regulatory Setting

Special-status habitats are vegetation types, associations, or sub-associations that support concentrations of special-status plant or animal species, are of relatively limited distribution, or are of particular value to wildlife.

Listed species are those taxa that are formally listed as endangered or threatened by the federal government (e.g. U.S. Fish and Wildlife Service [USFWS]), pursuant to the federal Endangered Species Act (FESA) or as endangered, threatened, or rare (for plants only) by the State of California (i.e. California Fish and Game Commission), pursuant to the California Endangered Species Act or the California Native Plant Protection Act. Some species are considered rare (but not formally listed) by resource agencies, organizations with biological interests/expertise (e.g., Audubon Society, California Native Plant Society [CNPS], The Wildlife Society), and the scientific community.

The following is a brief summary of the regulatory context under which biological resources are managed at the federal, State, and local levels. A number of federal and State statutes provide a regulatory structure that guides the protection of biological resources. Agencies with the responsibility for protection of biological resources within the project site include:

- U.S. Army Corps of Engineers (USACE) (wetlands and other waters of the United States);
- San Francisco Bay Regional Water Quality Control Board (waters of the State);
- USFWS (federally listed species and migratory birds);
- California Department Fish and Wildlife (riparian areas, streambeds, and lakes; state-listed species; species of special concern; nesting birds); and
- The City of Oakland General Plan and Municipal Code (trees, waterways, natural habitats).

U.S. Army Corps of Engineers

Under Section 404 of the Clean Water Act, the USACE has authority to regulate activities that could discharge fill of material into wetlands or other “waters of the United States.” Perennial and intermittent creeks are considered waters of the United States if they are hydrologically connected to other jurisdictional waters (typically a navigable water). The USACE also implements the federal policy embodied in Executive Order 11990, which is intended to result in no net loss of wetland value or acres. In achieving the goals of the Clean Water Act, the USACE seeks to avoid adverse impacts and offset unavoidable adverse impacts on existing aquatic resources. Any fill of wetlands that are hydrologically connected to jurisdictional waters would require a permit from the USACE prior to the start of work. Typically, when a project involves impacts to waters of the United States, the goal of no net loss of wetland acres or values is met through avoidance and minimization to the extent practicable, followed by compensatory mitigation involving creation or enhancement of similar habitats.

Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and the local Regional Water Quality Control Board (RWQCB) have jurisdiction over “waters of the State,” pursuant to the Porter-Cologne Water Quality Control Act, which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. The SWRCB has issued general Waste Discharge Requirements (WDR) regarding discharges to “isolated” waters of the State (Water Quality Order No. 2004-0004-

DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the USACE to be Outside of Federal Jurisdiction). The RWQCB administers actions under this general order for isolated waters not subject to federal jurisdiction and is also responsible for the issuance of water quality certifications pursuant to Section 401 of the Clean Water Act for waters subject to federal jurisdiction.

United States Fish and Wildlife Service

The USFWS implements the Migratory Bird Treaty Act (16 United States Code [USC] Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668). The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the Federal Endangered Species Act (FESA) (16 USC Section 153 et seq.). Generally, the USFWS implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species. Projects that would result in “take” of any federally threatened or endangered species are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of the FESA, depending on the involvement by the federal government in permitting and/or funding of the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. “Take” under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of the FESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) derives its authority from the Fish and Game Code of California. The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 et. seq.) prohibits take of state listed threatened or endangered. Take under CESA is restricted to direct mortality of a listed species and the law does not prohibit indirect harm by way of habitat modification. Where incidental take would occur during construction or other lawful activities, CESA allows the CDFW to issue an Incidental Take Permit upon finding, among other requirements, that impacts to the species have been minimized and fully mitigated.

The CDFW also enforces Sections 3511, 4700, 5050, and 5515 of the Fish and Game Code, which prohibits take of species designated as fully protected. The CDFW is not allowed to issue an Incidental Take Permit for fully protected species; therefore, impacts to these species must be avoided.

California Fish and Game Code sections 3503, 3503.5, and 3513 describe unlawful take, possession, or destruction of native birds, nests, and eggs. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Section 3513 makes it a state-level offense to take any bird in violation of the federal Migratory Bird Treaty Act. CDFW administers these requirements.

Species of special concern (SSC) is a category used by the CDFW for those species which are considered to be indicators of regional habitat changes or are considered to be potential future protected species. SSC do not have any special legal status except that which may be afforded by the Fish and Game Code as noted above. The SSC category is intended by the CDFW for use as a management tool to include these species in special consideration when decisions are made

concerning the development of natural lands. The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (Fish and Game Code Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Effective in 2015, CDFW promulgated regulations (14 CCR 786.9) under the authority of the NPPA, establishing that the CESA's permitting procedures would be applied to plants listed under the NPPA as "Rare." With this change, there is little practical difference for the regulated public between plants listed under CESA and those listed under the NPPA.

Perennial, intermittent, and ephemeral streams and associated riparian vegetation, when present, also fall under the jurisdiction of the CDFW. Section 1600 et seq. of the Fish and Game Code (Lake and Streambed Alteration Agreements) gives the CDFW regulatory authority over activities that divert, obstruct, or alter the channel, bed, or bank of any river, stream or lake.

Local Jurisdiction

City of Oakland General Plan: Open Space Conservation and Recreation Element

POLICIES PERTAINING TO BIOLOGICAL RESOURCES

Chapter 3 of the Open Space Conservation and Recreation Element of the City of Oakland General Plan Includes the following goals, objectives, and policies to protect biological resources:

Water Resources

Policy CO-5.3: Control of Urban Runoff

Employ a broad range of strategies, compatible with the Alameda Countywide Clean Water Program, to:

- A. reduce water pollution associated with stormwater runoff;
- B. reduce water pollution associated with hazardous spills, runoff from hazardous material areas, improper disposal of household hazardous wastes, illicit dumping, and marina "live-aboards;"
- C. improve water quality in Lake Merritt to enhance the lakes's aesthetic, recreational, and ecological functions.

Plant and Animal Resources

Policy CO-7.4: Tree Removal

Discourage the removal of large trees on already developed sites unless removal is required for biological, public safety, or public works reasons.

Objective CO-9: Rare, Endangered, and Threatened Species

To protect rare, endangered, and threatened species from the impacts of urbanization

The City of Oakland Municipal Code Chapter 12.36- Protected Trees

Under Municipal Code Chapter 12.36, the removal of coast live oak trees measuring 4 inches diameter at breast height (dbh) or larger, and any other tree measuring 9 inches dbh or larger except Eucalyptus and Monterey Pine is protected by the City and requires a tree removal permit.

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Appendix B

Site Photographs



Photograph 1. View of the railroad crossing at 29th Avenue, facing northwest.



Photograph 2. View of the railroad crossing at 29th Avenue, facing northeast.



Photograph 3. View of the railroad crossing at 37th Avenue, facing northwest.



Photograph 4. View of the railroad crossing at 37th Avenue, facing northeast.



Photograph 5. View of the railroad crossing at 50th Avenue, facing northwest.



Photograph 6. View of the railroad crossing at 50th Avenue, facing northeast.



Photograph 7. View of the railroad crossing at Fruitvale Avenue, facing northwest.



Photograph 8. View of the project area just southwest of the railroad crossing at Fruitvale Avenue, facing southeast.

Appendix C

Floral and Faunal Compendium

Plant Species Observed Within the Study Area on October 19, 2022

Scientific Name	Common Name	Status	Native or Introduced
Trees			
<i>Acacia</i> sp.	acacia tree	None	Introduced
<i>Olea europaea</i>	olive tree	None	Introduced, Cal-IPC Limited
<i>Phoenix canariensis</i>	Canary Island palm	None	Introduced, Cal-IPC Limited
<i>Prunus cerasifera</i>	cherry plum	None	Introduced, Cal-IPC Limited
<i>Pyrus calleryana</i>	Callery pear	None	Introduced, Cal-IPC Watch
<i>Quercus agrifolia</i>	coast live oak	None	Native
Herbs			
<i>Aster</i> sp	aster	None	Introduced
<i>Dittrichia graveolens</i>	stinkwort	None	Introduced, Cal-IPC Moderate
<i>Epilobium brachycarpum</i>	panicled willowherb	None	Native
<i>Erigeron bonariensis</i>	flax-leaved horseweed	None	Introduced
<i>Erigeron canadensis</i>	Canada Horseweed	None	Native
<i>Erodium cicutarium</i>	storksbill	None	Introduced, Cal-IPC, Limited
<i>Foeniculum vulgare</i>	fennel	None	Introduced, Cal-IPC Moderate
<i>Hedra helix</i>	English ivy	None	Introduced, Cal-IPC High
<i>Helminthotheca echioides</i>	bristly oxtongue	None	Introduced, Cal-IPC Limited
<i>Malva neglecta</i>	dwarf mallow	None	Introduced
<i>Parietaria pensylvanica</i>	Pennsylvania pellitory	None	Native
<i>Plantago lanceolata</i>	narrow-leaved plantain	None	Introduced, Cal-IPC Limited
<i>Polygonum aviculare</i>	prostrate knotweed	None	Introduced
<i>Sonchus</i> sp.	sow thistle	None	Introduced
<i>Tulbaghia violacea</i>	society garlic	None	Introduced

Circlepoint
Alameda County Transportation Commission Rail Safety Enhancement Program – Oakland

Scientific Name	Common Name	Status	Native or Introduced
Grasses			
<i>Avena fatua</i>	wild oat	None	Introduced, Cal-IPC Moderate
<i>Cortaderia selloana</i>	pampas grass	None	Introduced, Cal-IPC High
<i>Digitaria sp.</i>	crabgrass	None	Introduced
<i>Stipa miliaceae</i>	smilo grass	None	Introduced, Cal-IPC Limited

Cal-IPC=California Invasive Plant Council

Wildlife Species Observed Within the Study Area on October 19, 2022

Scientific Name	Common Name	Status	Native or Introduced
Birds			
<i>Columba livia</i>	rock pigeon	None	Introduced
<i>Corvus brachyrhynchos</i>	American crow	None	Native
<i>Hylephila phyleus</i>	fiery skipper	None	Native
<i>Pituophis catenifer</i>	gopher snake	None	Native (deceased on-site)
<i>Psaltiriparus minimus</i>	bush tit	None	Native
<i>Sceloporus occidentalis</i>	Western fence lizard	None	Native

FD= Federally Delisted SD= State Delisted FP= State Fully Protected

Appendix D

Special-Status Species Evaluation Tables

Special Status Plant and Lichen Species in the Regional Vicinity of the Study Area

Scientific Name Common Name	Status Federal/State ESA CRPR	Habitat Requirements	Potential to Occur/Effect Determination	Rationale
<i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	None/None G5T2/S2 1B.2	Cismontane woodland, Valley and foothill grassland. Clay, volcanic, often serpentinite soils. 52 - 305 m. Perennial bulbiferous herb. Blooms (Apr) May-Jun.	Not Expected	Outside elevation, no suitable habitat (i.e., cismontane woodland, valley and foothill grassland), or soils are present. The species is not expected to occur within the study area.
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	None/None G3/S3 1B.2	Annual herb. Cismontane woodland, coastal bluff scrub, valley and foothill grassland. Elevations: 10-1,640 ft. (3-500 m.) Blooms Mar-Jun.	Not Expected	No suitable habitat (i.e., Cismontane woodland, coastal bluff scrub, valley and foothill grassland.) is present. There are two documented occurrences of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Arctostaphylos pallida</i> <i>pallid manzanita</i>	FT/SCE G1/S1 1B.1	Perennial evergreen shrub. Broadleafed upland forest, chaparral, cismontane woodland, closed-cone coniferous forest, coastal scrub. Grows on uplifted marine terraces on siliceous shale or thin chert. May require fire. Elevations: 605-1,525 ft. (185-465 m.) Blooms Dec-Mar.	Not Expected	No suitable habitat (i.e., Broadleafed upland forest, chaparral, cismontane woodland, closed-cone coniferous forest, coastal scrub) is present. There are five documented occurrences of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	None/None G2T1/S1 1B.2	Annual herb. Playas, valley and foothill grassland, vernal pools. Alkaline. Elevations: 5-195 ft. (1-60 m.) Blooms Mar-Jun.	Not Expected	No suitable habitat (i.e., playas, valley and foothill grassland, vernal pools) is present. There are three documented occurrences of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	None/None G2/S2 1B.2	Perennial herb. Chaparral, cismontane woodland, valley and foothill grassland. Serpentinite (sometimes). Elevations: 150-5,100 ft. (45-1,555 m.) Blooms Mar-Jun.	Not Expected	No suitable habitat (i.e., chaparral, cismontane woodland, valley and foothill grassland) or elevations are present. The species is not expected to occur within study area.
<i>Blepharizonia plumosa</i> big tarplant	None/None G1G2/S1S2 1B.1	Annual herb. Valley and foothill grassland. Clay (usually). Elevations: 100-1,655 ft. (30-505 m.) Blooms Jul-Oct.	Not Expected	No suitable habitat (i.e., valley and foothill grassland) or elevations are present. The species is not expected to occur within study area.

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Scientific Name Common Name	Status Federal/State ESA CRPR	Habitat Requirements	Potential to Occur/Effect Determination	Rationale
<i>Calochortus pulchellus</i> <i>Mt. Diablo fairy-lantern</i>	None/None G2/S2 1B.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. On wooded and brushy slopes. Elevations: 100-2,755 ft. (30-840 m.) Blooms Apr-Jun.	Not Expected	No suitable habitat (i.e., chaparral, cismontane woodland, riparian woodland, valley and foothill grassland) or elevations are present. The species is not expected to occur within study area.
<i>Calystegia purpurata</i> ssp. <i>saxicola</i> <i>coastal bluff morning-glory</i>	None/None G4T2T3/S2S3 1B.2	Perennial herb. Coastal bluff scrub, coastal dunes, coastal scrub, north coast coniferous forest. Elevations: 0-345 ft. (0-105 m.) Blooms (Mar) Apr-Sep.	Not Expected	No suitable habitat (i.e., coastal bluff scrub, coastal dunes, coastal scrub, north coast coniferous forest.) or elevations are present. The species is not expected to occur within study area.
<i>Carex comosa</i> <i>bristly sedge</i>	None/None G5/S2 2B.1	Perennial rhizomatous herb. Coastal prairie, marshes and swamps, valley and foothill grassland. Lake margins, wet places; site below sea level is on a Delta island. Elevations: 0-2,050 ft. (0-625 m.) Blooms May-Sep.	Not Expected	No suitable habitat (i.e., coastal prairie, marshes and swamps, valley and foothill grassland) or elevations are present. The species is not expected to occur within study area.
<i>Centromadia parryi</i> ssp. <i>congdonii</i> <i>Congdon's tarplant</i>	None/None G3T1T2/S1S2 1B.1	Annual herb. Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. Elevations: 0-755 ft. (0-230 m.) Blooms May-Oct (Nov).	Not Expected	No suitable habitat (i.e., valley and foothill grassland) or elevations are present. The species is not expected to occur within study area.
<i>Chloropyron maritimum</i> ssp. <i>palustre</i> <i>Point Reyes salty bird's-beak</i>	None/None G4?T2/S2 1B.2	Annual herb (hemiparasitic). Marshes and swamps. Usually in coastal salt marsh with <i>Salicornia</i> , <i>Distichlis</i> , <i>Jaumea</i> , <i>Spartina</i> , etc. Elevations: 0-35 ft. (0-10 m.) Blooms Jun-Oct.	Not Expected	No suitable habitat (i.e., marshes and swamps) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Chorizanthe cuspidata</i> var. <i>cuspidata</i> <i>San Francisco Bay spineflower</i>	None/None G2T1/S1 1B.2	Annual herb. Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub. Sandy. Elevations: 10-705 ft. (3-215 m.) Blooms Apr-Jul (Aug).	Not Expected	No suitable habitat (i.e., coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.

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<i>Chorizanthe robusta</i> var. <i>robusta</i> <i>robust spineflower</i>	FE/None G2T1/S1 1B.1	Annual herb. Chaparral, cismontane woodland, coastal dunes, coastal scrub. Gravelly (sometimes), sandy (sometimes). Elevations: 10-985 ft. (3-300 m.) Blooms Apr-Sep.	Not Expected	No suitable habitat (i.e., chaparral, cismontane woodland, coastal dunes, coastal scrub) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Cicuta maculata</i> var. <i>bolanderi</i> <i>Bolander's water-hemlock</i>	None/None G5T4T5/S2? 2B.1	Perennial herb. Marshes and swamps. In fresh or brackish water. Elevations: 0-655 ft. (0-200 m.) Blooms Jul-Sep.	Not Expected	No suitable habitat (i.e., marshes and swamps) or elevations are present. The species is not expected to occur within study area.
<i>Cirsium andrewsii</i> <i>Franciscan thistle</i>	None/None G3/S3 1B.2	Perennial herb. Broadleafed upland forest, coastal bluff scrub, coastal prairie, coastal scrub. Mesic, serpentinite (sometimes). Elevations: 0-490 ft. (0-150 m.) Blooms Mar-Jul.	Not Expected	No suitable habitat (i.e., broadleafed upland forest, coastal bluff scrub, coastal prairie, coastal scrub) or elevations are present. The species is not expected to occur within study area.
<i>Clarkia franciscana</i> <i>Presidio clarkia</i>	FE/SCE G1/S1 1B.1	Annual herb. Coastal scrub, valley and foothill grassland. Serpentine outcrops in grassland or scrub. Elevations: 80-1,100 ft. (25-335 m.) Blooms May-Jul.	Not Expected	No suitable habitat (i.e., coastal scrub, valley and foothill grassland) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Dirca occidentalis</i> western <i>leatherwood</i>	None/None G2/S2 1B.2	Perennial deciduous shrub. Broadleafed upland forest, chaparral, cismontane woodland, closed-cone coniferous forest, north coast coniferous forest, riparian forest, riparian woodland. On brushy slopes, mesic sites; mostly in mixed evergreen and foothill woodland communities. Elevations: 80-1,395 ft. (25-425m.) Blooms Jan-Mar (Apr).	Not Expected	No suitable habitat (i.e., broadleafed upland forest, chaparral, cismontane woodland, closed-cone coniferous forest, north coast coniferous forest, riparian forest, riparian woodland) is present. There are eight documented occurrences of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.

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Scientific Name Common Name	Status Federal/State ESA CRPR	Habitat Requirements	Potential to Occur/Effect Determination	Rationale
<i>Eriogonum luteolum</i> var. <i>caninum</i> <i>Tiburon buckwheat</i>	None/None G5T2/S2 1B.2	Annual herb. Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Serpentine soils; sandy to gravaelly sites. Elevations: 0-2,295 ft. (0-700 m.) Blooms May-Sep.	Not Expected	No suitable habitat (i.e., chaparral, cismontane woodland, coastal prairie, valley and foothill grassland) is present. There are three documented occurrences of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Eryngium jepsonii</i> <i>Jepson's coyote-thistle</i>	None/None G2/S2 1B.2	Perennial herb. Valley and foothill grassland, vernal pools. Clay. Elevations: 10-985 ft. (3-300 m.) Blooms Apr-Aug.	Not Expected	No suitable habitat (i.e., valley and foothill grassland, vernal pools) or elevations are present. The species is not expected to occur within study area.
<i>Extriplex joaquinana</i> <i>San Joaquin spearscale</i>	None/None G2/S2 1B.2	Annual herb. Chenopod scrub, meadows and seeps, playas, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with <i>Distichlis spicata</i> , <i>Frankenia</i> , etc. Elevations: 5-2,740 ft. (1-835 m.) Blooms Apr-Oct.	Not Expected	No suitable habitat (i.e., Chenopod scrub, meadows and seeps, playas, valley and foothill grassland) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Fissidens pauperculus</i> <i>minute pocket moss</i>	None/None G3?/S2 1B.2	Moss. North coast coniferous forest. Moss growing on damp soil along the coast. In dry streambeds and stream banks. Elevations: 35-3,360 ft. (10-1,024 .)	Not Expected	No suitable habitat (i.e., north coast coniferous forest) or elevations are present. The species is not expected to occur within study area.
<i>Fritillaria liliacea</i> <i>fragrant fritillary</i>	None/None G2/S2 1B.2	Perennial bulbiferous herb. Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland. Often on serpentine; various soils reported though usually on clay, in grassland. Elevations: 10-1,345 ft. (3-410 m.) Blooms Feb-Apr.	Not Expected	No suitable habitat (i.e., cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland) is present. There are two documented occurrences of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Gilia capitata</i> ssp. <i>chamissonis</i> <i>blue coast gilia</i>	None/None G5T2/S2 1B.1	Annual herb. Coastal dunes, coastal scrub. Elevations: 5-655 ft. (2-200 m.) Blooms Apr-Jul.	Not Expected	No suitable habitat (i.e., coastal dunes, coastal scrub) or elevations are present. The species is not expected to occur within study area.
<i>Gilia millefoliata</i> <i>dark-eyed gilia</i>	None/None G2/S2 1B.2	Annual herb. Coastal dunes. Elevations: 5-100	Not Expected	No suitable habitat (i.e., coastal dunes) is present. There is one documented occurrence of the

Scientific Name Common Name	Status Federal/State ESA CRPR	Habitat Requirements	Potential to Occur/Effect Determination	Rationale
		ft. (2-30 m.) Blooms Apr-Jul.		species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Helianthella castanea</i> <i>Diablo helianthella</i>	None/None G2/S2 1B.2	Perennial herb. Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Azonal soils, partial shade (often), rocky (usually). Elevations: 195-4,265 ft. (60-1,300 m.) Blooms Mar-Jun.	Not Expected	No suitable habitat (i.e., broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Hemizonia congesta</i> ssp. <i>congesta</i> <i>congested-headed hayfield tarplant</i>	None/None G5T2/S2 1B.2	Annual herb. Valley and foothill grassland. Grassy valleys and hills, often in fallow fields; sometimes along roadsides. Elevations: 65-1,835 ft. (20-560 m.) Blooms Apr-Nov.	Not Expected	No suitable habitat (i.e., valley and foothill grassland) or elevations are present. The species is not expected to occur within study area.
<i>Heteranthera dubia</i> <i>water star-grass</i>	None/None G5/S2 2B.2	Perennial herb (aquatic). Marshes and swamps. Alkaline, still or slow-moving water. Requires a pH of 7 or higher, usually in slightly eutrophic waters. Elevations: 100-4,905 ft. (30-1,495 m.) Blooms Jul-Oct.	Not Expected	No suitable habitat (i.e., chaparral and coastal scrub) or elevations are present. The species is not expected to occur within study area.
<i>Hoita strobilina</i> <i>Loma Prieta hoita</i>	None/None G2?/S2? 1B.1	Perennial herb. Chaparral, cismontane woodland, riparian woodland. Serpentine; mesic sites. Elevations: 100-2,820 ft. (30-860 m.) Blooms May-Jul (Aug-Oct).	Not Expected	No suitable habitat (i.e., chaparral, cismontane woodland, riparian woodland) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Holocarpha macradenia</i> <i>Santa Cruz tarplant</i>	FT/SCE G1/S1 1B.1	Annual herb. Coastal prairie, coastal scrub, valley and foothill grassland. Light, sandy soil or sandy clay; often with nonnatives. Elevations: 35-720 ft. (10-220 m.) Blooms Jun-Oct.	Not Expected	No suitable habitat (i.e., coastal prairie, coastal scrub, valley and foothill grassland) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.

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<i>Horkelia cuneata</i> <i>var. sericea</i> <i>Kellogg's horkelia</i>	None/None G4T1?/S1? 1B.1	Perennial herb. Chaparral, closed-cone coniferous forest, coastal dunes, coastal scrub. Old dunes, coastal sandhills; openings. Sandy or gravelly soils. Elevations: 35-655 ft. (10-200 m.) Blooms Apr-Sep.	Not Expected	No suitable habitat (i.e., chaparral, closed-cone coniferous forest, coastal dunes, coastal scrub) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Isocoma arguta</i> <i>Carquinez</i> <i>goldenbush</i>	None/None G1/S1 1B.1	Perennial shrub. Valley and foothill grassland. Alkaline soils, flats, lower hills. On low benches near drainages and on tops and sides of mounds in swale habitat. Elevations: 5-65 ft. (1-20 m.) Blooms Aug-Dec.	Not Expected	No suitable habitat (i.e., valley and foothill grassland) or elevations are present. The species is not expected to occur within study area.
<i>Lasthenia conjugens</i> <i>Contra Costa</i> <i>goldfields</i>	FE/None G1/S1 1B.1	Annual herb. Cismontane woodland, playas, valley and foothill grassland, vernal pools. Vernal pools, swales, low depressions, in open grassy areas. Elevations: 0-1,540 ft. (0-470 m.) Blooms Mar-Jun.	Not Expected	No suitable habitat (i.e., cismontane woodland, playas, valley and foothill grassland, vernal pools) or elevations are present. The species is not expected to occur within study area.
<i>Layia carnosa</i> <i>beach layia</i>	FE/SCE G2/S2 1B.1	Annual herb. Coastal dunes, coastal scrub. On sparsely vegetated, semi-stabilized dunes, usually behind foredunes. Elevations: 0-195 ft. (0-60 m.) Blooms Mar-Jul.	Not Expected	No suitable habitat (i.e., coastal dunes, coastal scrub) or elevations are present. The species is not expected to occur within study area.
<i>Leptosiphon rosaceus</i> <i>rose leptosiphon</i>	None/None G1/S1 1B.1	Annual herb. Coastal bluff scrub. Elevations: 0-330 ft. (0-100 m.) Blooms Apr-Jul.	Not Expected	No suitable habitat (i.e., coastal bluff scrub) or elevations are present. The species is not expected to occur within study area.
<i>Meconella oregana</i> <i>Oregon meconella</i>	None/None G2G3/S2 1B.1	Annual herb. Coastal prairie, coastal scrub. Open, moist places. Elevations: 820-2,035 ft. (250-620 m.) Blooms Mar-Apr.	Not Expected	No suitable habitat (i.e., coastal prairie, coastal scrub) or elevations are present. The species is not expected to occur within study area.
<i>Monolopia gracilens</i> <i>woodland</i> <i>woollythreads</i>	None/None G3/S3 1B.2	Annual herb. Broadleafed upland forest, chaparral, cismontane woodland, north coast coniferous forest, valley and foothill grassland. Grassy sites, in openings; sandy to rocky	Not Expected	No suitable habitat (i.e., broadleafed upland forest, chaparral, cismontane woodland, north coast coniferous forest, valley and foothill grassland) is present. There is one documented

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		soils. Often seen on serpentine after burns but may have only weak affinity to serpentine. Elevations: 330-3,935 ft. (100-1,200 m.) Blooms (Feb) Mar-Jul.		occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Oenothera deltooides</i> ssp. <i>howellii</i> Antioch Dunes evening-primrose	FE/SCE G5T1/S1 1B.1	Perennial herb. Inland dunes. Remnant river bluffs and sand dunes east of Antioch. Elevations: 0-100 ft. (0-30 m.) Blooms Mar-Sep.	Not Expected	No suitable habitat (i.e., inland dunes) or elevations are present. The species is not expected to occur within study area.
<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i> Choris' popcornflower	None/None G3T1Q/S1 1B.2	Annual herb. Chaparral, coastal prairie, coastal scrub. Mesic sites. Elevations: 10-525 ft. (3-160 m.) Blooms Mar-Jun.	Not Expected	No suitable habitat (i.e., chaparral, coastal prairie, coastal scrub) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Plagiobothrys diffusus</i> San Francisco popcornflower	None/SCE G1Q/S1 1B.1	Annual herb. Coastal prairie, valley and foothill grassland. Historically from grassy slopes with marine influence. Elevations: 195-1,180 ft. (60-360 m.) Blooms Mar-Jun.	Not Expected	No suitable habitat (i.e., coastal prairie, valley and foothill grassland) or elevations are present. The species is not expected to occur within study area.
<i>Plagiobothrys glaber</i> hairless popcornflower	None/None GX/SX 1A	Annual herb. Marshes and swamps, meadows and seeps. Coastal salt marshes and alkaline meadows. Elevations: 50-590 ft. (15-180 m.) Blooms Mar-May.	Not Expected	No suitable habitat (i.e., marshes and swamps, meadows and seeps) or elevations are present. The species is not expected to occur within study area.
<i>Sanicula maritima</i> adobe sanicle	None/SCR G2/S2 1B.1	Perennial herb. Chaparral, coastal prairie, meadows and seeps, valley and foothill grassland. Moist clay or ultramafic soils. Elevations: 100-785 ft. (30-240 m.) Blooms Feb-May.	Not Expected	No suitable habitat (i.e., chaparral, coastal prairie, meadows and seeps, valley and foothill grassland) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.

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<i>Spergularia macrotheca</i> var. <i>longistyla</i> <i>long-styled sand-spurrey</i>	None/None G5T2/S2 1B.2	Perennial herb. Marshes and swamps, meadows and seeps. Alkaline. Elevations: 0-835 ft. (0-255 m.) Blooms Feb-May.	Not Expected	No suitable habitat (i.e., marshes and swamps, meadows and seeps) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i> <i>most beautiful jewelflower</i>	None/None G2T2/S2 1B.2	Annual herb. Chaparral, cismontane woodland, valley and foothill grassland. Serpentine outcrops, on ridges and slopes. Elevations: 310-3,280 ft. (95-1,000 m.) Blooms (Mar) Apr-Sep (Oct).	Not Expected	No suitable habitat (i.e., chaparral, cismontane woodland, valley and foothill grassland) is present. There are four documented occurrences of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Stuckenia filiformis</i> ssp. <i>alpina</i> <i>northern slender pondweed</i>	None/None G5T5/S2S3 2B.2	Perennial rhizomatous herb (aquatic). Marshes and swamps. Shallow, clear water of lakes and drainage channels. Elevations: 985-7,055 ft. (300-2,150 m.) Blooms May-Jul.	Not Expected	No suitable habitat (i.e., marshes and swamps) or elevations are present. The species is not expected to occur within study area.
<i>Suaeda californica</i> <i>California seablite</i>	FE/None G1/S1 1B.1	Perennial evergreen shrub. Marshes and swamps. Margins of coastal salt marshes. Elevations: 0-50 ft. (0-15 m.) Blooms Jul-Oct.	Not Expected	No suitable habitat (i.e., marshes and swamps) is present. There are two documented occurrences of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Trifolium hydrophilum</i> <i>saline clover</i>	None/None G2/S2 1B.2	Annual herb. Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. Elevations: 0-985 ft. (0-300 m.) Blooms Apr-Jun.	Not Expected	No suitable habitat (i.e., marshes and swamps, valley and foothill grassland, vernal pools) is present. There are two documented occurrences of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Triphysaria floribunda</i> <i>San Francisco owl's-clover</i>	None/None G2?/S2? 1B.2	Annual herb. Coastal prairie, coastal scrub, valley and foothill grassland. On serpentine and non-serpentine substrate (such as at Pt. Reyes). Elevations: 35-525 ft. (10-160 m.) Blooms Apr-Jun.	Not Expected	No suitable habitat (i.e., coastal prairie, coastal scrub, valley and foothill grassland) or elevations are present. The species is not expected to occur within study area.

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<i>Viburnum ellipticum oval-leaved viburnum</i>	None/None G4G5/S3? 2B.3	Perennial deciduous shrub. Chaparral, cismontane woodland, lower montane coniferous forest. Elevations: 705-4,595 ft. (215-1,400 m.) Blooms May-Jun.	Not Expected	No suitable habitat (i.e., chaparral, cismontane woodland, lower montane coniferous forest) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.

ft. = feet; m. = meter

Regional Vicinity refers to within a 9 USGS quadrangle search radius of site.

FE = Federally Endangered FT = Federally Threatened FC = Federal Candidate Species

SE = State Endangered ST = State Threatened SC = State Candidate SR = State Rare

CRPR (CNPS California Rare Plant Rank):

1A=Presumed Extinct in California

1B=Rare, Threatened, or Endangered in California and elsewhere

2A=Plants presumed extirpated in California, but more common elsewhere

2B=Plants Rare, Threatened, or Endangered in California, but more common elsewhere

CRPR Threat Code Extension:

.1=Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)

.2=Fairly endangered in California (20-80% occurrences threatened)

.3=Not very endangered in California (<20% of occurrences threatened)

Special-Status Wildlife Species in the Regional Vicinity of the Study Area

Scientific Name Common Name	Status Federal/State ESA Global/ State CDFW	Habitat Requirements	Potential to Occur/Effect Determination	Rationale
Invertebrates				
<i>Bombus crotchii</i> <i>Crotch bumble</i> <i>bee</i>	None/SCE G2/S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Not Expected	No suitable habitat is present. The species is not expected to occur within study area.
<i>Bombus occidentalis</i> <i>western bumble</i> <i>bee</i>	None/SCE G2G3/S1	Once common and widespread, species has declined precipitously from central California to southern British Columbia., perhaps from disease.	Low Potential	There are three documented occurrences of the species within 5 miles (CDFW 2022a). No suitable habitat is present, however, given documentation of this species nearby, this species has a low potential to pass through the site.
<i>Euphydryas editha bayensis</i> <i>Bay checkerspot</i> <i>butterfly</i>	FT/None G5T1/S1	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. <i>Plantago erecta</i> is the primary host plant; <i>Orthocarpus densiflorus</i> and <i>O. purpurascens</i> are the secondary host plants.	Not Expected	No suitable habitat (i.e., native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay) is present. There are two documented occurrences of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
Fish				
<i>Acipenser medirostris</i> pop. 1 <i>green sturgeon - southern DPS</i>	FT/None G3T1/S1	Spawning site fidelity. Spawns in the Sacramento, Feather and Yuba Rivers. Presence in upper Stanislaus and San Joaquin Rivers may indicate spawning. Non-spawning adults occupy marine/estuarine waters. Delta Estuary is important for rearing juveniles. Spawning occurs primarily in cool (11-15 C) sections of mainstem rivers in deep pools (8-9 meters) with substrate containing small to medium sized sand, gravel, cobble, or boulder.	Not Expected	No suitable habitat (i.e., marine/estuarine waters) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.

Scientific Name Common Name	Status Federal/State ESA Global/ State CDFW	Habitat Requirements	Potential to Occur/Effect Determination	Rationale
<i>Archoplites interruptus</i> Sacramento perch	None/None G2G3/S1 SSC	Historically found in the sloughs, slow-moving rivers, and lakes of the Central Valley. Prefers warm water. Aquatic vegetation is essential for young. Tolerates wide range of physio-chemical water conditions.	Not Expected	No suitable habitat (i.e., warm sloughs, slow-moving rivers, and lakes) is present. The species is not expected to occur within study area.
<i>Eucyclogobius newberryi</i> tidewater goby	FE/None G3/S3	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	Not Expected	No suitable habitat (i.e., still but not stagnant water and high oxygen levels) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Spirinchus thaleichthys</i> longfin smelt	FC/ST G5/S1	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 parts per trillion but can be found in completely freshwater to almost pure seawater.	Not Expected	No suitable habitat (i.e., open waters of estuaries) is present. There are two documented occurrences of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
Amphibians				
<i>Ambystoma californiense</i> California tiger salamander	FT/ST G2G3/S2S3 WL	Central Valley DPS federally listed as threatened. Santa Barbara and Sonoma counties DPS federally listed as endangered. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	Not Expected	No suitable habitat (i.e., vernal pools or seasonal water sources) is present within the study area. The species is not expected to be present in a fully developed urban area. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Rana boylei</i> foothill yellow-legged frog	None/SE G3/S3 SSC	Partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	Not Expected	No suitable habitat (i.e., Partly shaded, shallow streams and riffles with a rocky substrate) is present. There are two documented occurrences of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.

Scientific Name Common Name	Status Federal/State ESA Global/ State CDFW	Habitat Requirements	Potential to Occur/Effect Determination	Rationale
<i>Rana draytonii</i> California red- legged frog	FT/None G2G3/S2S3 SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Not Expected	No suitable habitat (i.e., permanent sources of deep water with dense, shrubby or emergent riparian vegetation) is present within the study area. The species is not expected to be present in a fully developed urban area. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
Reptiles				
<i>Anniella pulchra</i> Northern California legless lizard	None/None G3/S3 SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	Not Expected	No suitable habitat (i.e., sandy or loose loamy soils under sparse vegetation) is present. The species is not expected to occur within study area.
<i>Emys marmorata</i> western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 kilometers from water for egg-laying.	Not Expected	No suitable habitat (i.e., ponds, marshes, rivers, streams and irrigation ditches, with aquatic vegetation) is present within the study area. The species is not expected to be present in a fully developed urban area. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Masticophis lateralis</i> <i>euryxanthus</i> Alameda whipsnake	FT/ST G4T2/S2	Typically found in chaparral and scrub habitats but will also use adjacent grassland, oak savanna and woodland habitats. Mostly south-facing slopes and ravines, with rock outcrops, deep crevices or abundant rodent burrows, where shrubs form a vegetative mosaic with oak trees and grasses.	Not Expected/ No Effect	No suitable habitat (i.e., chaparral and scrub) is present within the study area. The species is not expected to be present in a fully developed urban area. Two occurrences of the species are documented within 5 miles of the study area, all within non-developed areas (CDFW 2022a).

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Birds				
<i>Accipiter cooperii</i> Cooper's hawk	None/None G5/S4 WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks.	High Potential	This species is likely to forage within the project area and has a low potential to nest in ornamental trees near the study area. Multiple occurrences of the species are documented in eBird within 5 miles of the study area (CDFW 2022a, Cornell Lab of Ornithology 2022a).
<i>Accipiter striatus sharp-shinned hawk</i>	None/None G5/S4 WL	Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers riparian areas. North-facing slopes with plucking perches are critical requirements. Nests usually within 275 feet of water.	Not Expected	No suitable habitat (i.e., Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine) is present. The species is not expected to occur within study area.
<i>Aquila chrysaetos golden eagle</i>	None/None G5/S3 FP WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Not Expected	No suitable habitat (i.e., rolling foothills, mountain areas, sage-juniper flats, and desert) is present. The species is not expected to occur within study area.
<i>Athene cucularia burrowing owl</i>	None/None G4/S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Not Expected	No suitable habitat (i.e., open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation) is present within the study area. The species is not expected to be present in a fully developed urban area. Two occurrences of the species are documented within 5 miles of the study area, all within non-developed areas (CDFW 2022a).
<i>Branta hutchinsii leucopareia cackling (=Aleutian Canada) goose</i>	FD/None G5T3/S3 WL	Winters on lakes and inland prairies. Forages on natural pasture or that cultivated to grain; loafs on lakes, reservoirs, ponds.	Not Expected	No suitable habitat (i.e., lakes and inland prairies) is present. The species is not expected to occur within study area.

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Scientific Name Common Name	Status Federal/State ESA Global/ State CDFW	Habitat Requirements	Potential to Occur/Effect Determination	Rationale
<i>Charadrius nivosus nivosus western snowy plover</i>	FT/None G3T3/S2 SSC	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Not Expected	No suitable habitat (i.e., Sandy beaches, salt pond levees and shores of large alkali lakes) There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Circus hudsonius northern harrier</i>	None/None G5/S3 SSC	Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienegas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Not Expected	No suitable habitat (i.e., coastal salt and freshwater marsh) is present. The species is not expected to occur within study area.
<i>Coturnicops noveboracensis yellow rail</i>	None/None G4/S1S2 SSC	Summer resident in eastern Sierra Nevada in Mono County. Freshwater marshlands.	Not Expected	No suitable habitat (i.e., freshwater marshland in Mono County) is present within the study area. The species is not expected to be present in a fully developed urban area. Two occurrences of the species are documented within 5 miles of the study area, all within non-developed areas (CDFW 2022a).
<i>Elanus leucurus white-tailed kite</i>	None/None G5/S3S4 FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Not Expected	No suitable habitat (i.e., Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland) is present. The species is not expected to occur within study area.
<i>Falco peregrinus anatum American peregrine falcon</i>	FD/SD G4T4/S3S4 FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	High Potential	There is an active nest at the Fruitvale Bridge about 0.4 miles from the Fruitvale site.

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<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	None/None G5T3/S3 SSC	Resident of the San Francisco Bay region, in fresh and saltwater marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	Not Expected	No suitable habitat (i.e., thick, continuous cover down to water surface) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Haliaeetus leucocephalus</i> bald eagle	FD/SE G5/S3 FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Not Expected	No suitable habitat (i.e., ocean shore, lake margins, and rivers) is present. The species is not expected to occur within study area.
<i>Laterallus jamaicensis coturniculus</i> California black rail	None/ST G3T1/S1 FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Not Expected	No suitable habitat (i.e., freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays) is present within the study area. The species is not expected to be present in a fully developed urban area. Three occurrences of the species are documented within 5 miles of the study area, all within non-developed areas (CDFW 2022a).
<i>Melospiza melodia maxillaris</i> Suisun song sparrow	None/None G5T3/S3 SSC	Resident of brackish-water marshes surrounding Suisun Bay. Inhabits cattails, tules and other sedges, and Salicornia; also known to frequent tangles bordering sloughs.	Not Expected	No suitable habitat (i.e., brackish-water marshes surrounding Suisun Bay) is present. The species is not expected to occur within study area.
<i>Melospiza melodia pusillula</i> Alameda song sparrow	None/None G5T2?/S2S3 SSC	Resident of salt marshes bordering south arm of San Francisco Bay. Inhabits Salicornia marshes; nests low in Grindelia bushes (high enough to escape high tides) and in Salicornia.	Not Expected	No suitable habitat (i.e., Salicornia marshes) is present within the study area. The species is not expected to be present in a fully developed urban area. Five occurrences of the species are documented within 5 miles of the study area, all within non-developed areas (CDFW 2022a).

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Scientific Name Common Name	Status Federal/State ESA Global/ State CDFW	Habitat Requirements	Potential to Occur/Effect Determination	Rationale
<i>Melospiza melodia samuelis San Pablo song sparrow</i>	None/None G5T2/S2 SSC	Resident of salt marshes along the north side of San Francisco and San Pablo bays. Inhabits tidal sloughs in the Salicornia marshes; nests in <i>Grindelia</i> bordering slough channels.	Not Expected	No suitable habitat (i.e., tidal sloughs) is present. The species is not expected to occur within study area.
<i>Nannopterum auritum double-crested cormorant</i>	None/None G5/S4 WL	Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	Not Expected	No suitable habitat (i.e., coastal cliffs, offshore islands, and along lake margins) is present. The species is not expected to occur within study area.
<i>Rallus obsoletus obsoletus California Ridgway's rail</i>	FE/SE G3T1/S1 FP	Salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed but feeds away from cover on invertebrates from mud-bottomed sloughs.	Not Expected	No suitable habitat (i.e., salt water and brackish marshes) is present within the study area. The species is not expected to be present in a fully developed urban area. Five occurrences of the species are documented within 5 miles of the study area, all within non-developed areas (CDFW 2022a).
<i>Rynchops niger black skimmer</i>	None/None G5/S2 SSC	Nests on gravel bars, low islets, and sandy beaches, in unvegetated sites. Nesting colonies usually less than 200 pairs.	Not Expected	No suitable habitat (i.e., gravel bars, low islets, and sandy beaches) is present. The species is not expected to occur within study area.
<i>Setophaga petechia yellow warbler</i>	None/None G5/S3S4 SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	Not Expected	No suitable habitat is present. The species is not expected to occur within study area.

Scientific Name Common Name	Status Federal/State ESA Global/ State CDFW	Habitat Requirements	Potential to Occur/Effect Determination	Rationale
<i>Sternula antillarum browni California least tern</i>	FE/SE G4T2T3Q/S2 FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	Not Expected	No suitable habitat (i.e., bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas) is present within the study area. The species is not expected to be present in a fully developed urban area. Two occurrences of the species are documented within 5 miles of the study area, all within non-developed areas (CDFW 2022a).
<i>Xanthocephalus xanthocephalus yellow-headed blackbird</i>	None/None G5/S3 SSC	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds. Nests only where large insects such as Odonata are abundant, nesting timed with maximum emergence of aquatic insects.	Not Expected	No suitable habitat (i.e., freshwater emergent wetlands with dense vegetation and deep water) is present. The species is not expected to occur within study area.
Mammals				
<i>Antrozous pallidus pallid bat</i>	None/None G4/S3 SSC	Found in a variety of habitats including deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in crevices of rock outcrops, caves, mine tunnels, buildings, bridges, and hollows of live and dead trees which must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Not Expected	No suitable habitat (i.e., open, dry habitats with rocky areas for roosting) is present within the study area. Two historical occurrences are recorded within 5 miles of the study area (CDFW 2022a).
<i>Corynorhinus townsendii Townsend's big- eared bat</i>	None/None G4/S2 SSC	Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open, hanging from walls and ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance.	Not Expected	No suitable habitat (i.e., coniferous or deciduous forests) is present. The species is not expected to occur within study area.

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Scientific Name Common Name	Status Federal/State ESA Global/ State CDFW	Habitat Requirements	Potential to Occur/Effect Determination	Rationale
<i>Eumops perotis californicus western mastiff bat</i>	None/None G4G5T4/S3S4 SSC	Occurs in open, semi-arid to arid habitats, including coniferous and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces and caves, and buildings. Roosts typically occur high above ground.	Not Expected	No suitable habitat (i.e., open, semi-arid to arid habitats, including coniferous and deciduous woodlands, coastal scrub, grasslands, and chaparral) is present. The species is not expected to occur within study area.
<i>Lasiorycteris noctivagans silver-haired bat</i>	None/None G3G4/S3S4	Primarily a coastal and montane forest dweller, feeding over streams, ponds and open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes, and rarely under rocks. Needs drinking water.	Not Expected	No suitable habitat is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Lasiurus cinereus hoary bat</i>	None/None G3G4/S4	Typically roosts in trees in deciduous and coniferous forests and woodlands but occasionally roosts in rocks crevices. Forages in open areas, typically along riparian corridors or over water. Diet primarily consists of moths.	Not Expected	No suitable habitat (i.e., deciduous and coniferous forests and woodlands) is present within the study area. Two historical occurrences are recorded within 5 miles of the study area (CDFW 2022a).
<i>Microtus californicus sanpabloensis San Pablo vole</i>	None/None G5T1T2/S1S2 SSC	Saltmarshes of San Pablo Creek, on the south shore of San Pablo Bay. Constructs burrow in soft soil. Feeds on grasses, sedges and herbs. Forms a network of runways leading from the burrow.	Not Expected	No suitable habitat (i.e., saltmarshes of San Pablo Creek) is present. The species is not expected to occur within study area.
<i>Neotoma fuscipes annectens San Francisco dusky-footed woodrat</i>	None/None G5T2T3/S2S3 SSC	Typically found in forest habitats with moderate to dense understory. Can occur in chaparral, riparian woodlands, and coniferous forests, particularly redwood. Builds middens out of grasses, leaves, and woody debris. This subspecies is found only in the San Francisco Bay region.	Not Expected	No suitable habitat (i.e., forest habitats with moderate to dense understory, chaparral, riparian woodlands, and coniferous forests) is present. The species is not expected to occur within study area.
<i>Nyctinomops macrotis big free-tailed bat</i>	None/None G5/S3 SSC	Low-lying arid areas in Southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	Not Expected	No suitable habitat (i.e., Low-lying arid areas in Southern California) is present. The species is not expected to occur within study area.

Scientific Name Common Name	Status Federal/State ESA Global/ State CDFW	Habitat Requirements	Potential to Occur/Effect Determination	Rationale
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	FE/SE G1G2/S1S2 FP	Only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat but may occur in other marsh vegetation types and in adjacent upland areas. Does not burrow; builds loosely organized nests. Requires higher areas for flood escape.	Not Expected	No suitable habitat (i.e., saline emergent wetlands of San Francisco Bay and its tributaries) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.
<i>Scapanus latimanus parvus</i> Alameda Island mole	None/None G5T1Q/SH SSC	Only known from Alameda Island. Found in a variety of habitats, especially annual and perennial grasslands. Prefers moist, friable soils. Avoids flooded soils.	Not Expected	No suitable habitat (i.e., annual and perennial grasslands on Alameda Island) is present within the study area. Eight historical occurrences are recorded within 5 miles of the study area (CDFW 2022a).
<i>Sorex vagrans halicoetes</i> salt-marsh wandering shrew	None/None G5T1/S1 SSC	Salt marshes of the south arm of San Francisco Bay. Medium high marsh 6-8 feet above sea level where abundant driftwood is scattered among Salicornia.	Not Expected	No suitable habitat (i.e., medium-high marsh) is present within the study area. Two historical occurrences are recorded within 5 miles of the study area (CDFW 2022a).

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<i>Taxidea taxus</i> <i>American badger</i>	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Not Expected	No suitable habitat (i.e., dry open stages of most shrub, forest, and herbaceous habitats, with friable soils) is present. There is one documented occurrence of the species within 5 miles (CDFW 2022a), but the species is not expected to occur within the study area.

Regional Vicinity refers to within a 9 USGS quadrangle search radius of site.

FE = Federally Endangered FT = Federally Threatened FC = Federal Candidate Species FS=Federally Sensitive

SE = State Endangered ST = State Threatened SC = State Candidate SS=State Sensitive

SSC = CDFW Species of Special Concern SFP = State Fully Protected