

**BIOLOGICAL RESOURCES REPORT FOR THE
SANTOS RANCH ROAD RESIDENTIAL DEVELOPMENT PROJECT,
HAYWARD, ALAMEDA COUNTY, CALIFORNIA**

February 2023

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ACRONYMS

CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNPS	California Native Plant Society
CNDDB	California Natural Diversity Data Base
CTS	California tiger salamander
CWA	Clean Water Act
EPA	Environmental Protection Agency
ESA	Endangered Species Act (Federal)
HCP	Habitat Conservation Plan
MBTA	Migratory Bird Treaty Act
NMFS	National Marine Fisheries Service
NPPA	Native Plant Protection Act
RWQCB	Regional Water Quality Control Board
SSC	Species of Special Concern
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
WBWG	Western Bat Working Group
WDR	Waste Discharge Requirements
WEF	Wildlife exclusion fencing

1.0 Introduction

This report contains the findings of a biological resources assessment that was conducted for the single-family residential development project on Santos Ranch Road in Hayward, CA (Figure 1). The Project is located on a hillside property on the east side of the incorporated City limits of Hayward, approximately one mile west of Highway 680. The Study Area (i.e. area subject to biological resource surveys) encompasses approximately 17 acres, including the Tolari parcel (APN 946-3800-4-12) and the portion of the Bhupinder parcel (APN 946-3800-4-9) that would be traversed by the proposed driveway.

Land uses surrounding the Study Area consist of undeveloped land in Pleasanton Ridge Regional Park (owned by East Bay Regional Park District) to the west, private undeveloped land to the north, Santos Ranch Road and undeveloped private land to the east, and residential development and Pleasanton Township County Water District land to the south.

The purpose of this biological resources report is to characterize the habitats that are present within the Study Area, evaluate the impact of the Proposed Project on biological resources, and describe avoidance/minimization/mitigation measures to reduce potential impacts of the project on biological resources. This report is suitable for review and inclusion in the California Environmental Quality Act (CEQA) evaluation of the Project's effects on biological resources that will be conducted by the City of Hayward as the lead agency. The Project Sponsor is Dean Finnegan, MDI Inc.

2.0 Project Description

The proposed project would consist of the construction of an approximately 6,700-square-foot, three-story single-family residence with a 918-square-foot garage and a 433-square-foot workshop on the southern half of the project site. The proposed residence would be a maximum of approximately 35 feet in height.

An approximately 1,000-foot-long, 20-foot wide gated, paved driveway would be constructed at the south end of the project site that would lead to the residence near the center of the site. The residential structure and the majority of the proposed improvements would be located on the Tolari parcel, but a portion of the proposed driveway would be located on the neighboring Bhupinder parcel under a private access easement.

The proposed project would include the installation of a new on-site well for water service and a septic system for wastewater. Three 5,000-gallon water tanks and a 1,200-square-foot leach field would also be installed. Two potential locations for the leach field have been identified (Appendix A), with the selected location to be determined based on percolation tests and County requirements. The project site includes six drainage management areas, one of which would be treated by cartridge filtration, four of which would be treated by bio-retention areas, and one of which would be self-treating.

Storm water runoff from the driveway and residence would be conveyed to new outfalls in an existing roadside ditch and existing catch basins that discharge to the roadside ditch (Appendix A).

Project construction would take approximately 16 months and would occur in a single phase. Project construction is expected to begin upon issuance of building permits. Construction vehicles would access the site via Santos Ranch Road and construction staging would occur within the existing project site. Grading for proposed improvements would require approximately 28,800 cubic yards of soil to be cut from the project site. Approximately 18,500 cubic yards would be used for fill, and the remaining 10,300 cubic yards would be exported from the project site. Construction of the proposed project would not require the removal of any trees.

3.0 Methods and Limitations

Background literature searches and reconnaissance-level surveys were conducted to determine whether special-status species have potential to inhabit the Study Area based on documented occurrences, range distribution and suitable habitat. Special-status species include: (1) all plants and animals that are listed under the Federal or State Endangered Species Acts as rare, threatened or endangered; (2) all federal and state candidates for listing; (3) California Department of Fish and Wildlife (CDFW) Species of Special Concern; (4) plants that qualify under the definition of "rare" in the California Environmental Quality Act (CEQA), section 15380; (5) all plants with a Rare Plant Rank of 1 and 2 (and Lists 3 and 4 when they meet the CEQA definition of "rare") in California Native Plant Society (2020); (6) animal species that are "fully protected" in California Fish and Game Codes 3511, 4700, 5050, and 5515, (7) migratory nongame birds of management concern listed by the U.S. Fish and Wildlife Service; (8) CDFW Special Animals; and (9) bat species that are designated on the Western Bat Working Group's (WBWG) Regional Bat Species Priority Matrix as "Red or High".

Information sources included the California Natural Diversity Data Base (CNDDDB) (CDFW 2022, Dublin 7.5' USGS quad and eight surrounding quads), the online California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2022a), and the U.S. Fish and Wildlife Service (USFWS) list of threatened or endangered species (USFWS 2022a). Other sources of information reviewed preparatory to this analysis include the USFWS Critical Habitat Mapper¹ and the Eastern Alameda County Conservation Strategy (ICF 2010). Special-status species were analyzed for their potential to occur in the Study Area based on the availability of suitable habitat. Appendix B (plants) and Appendix C (wildlife) describe special-status species documented to occur in the Study Area region and describes the potential for occurrence within the project site.

Reconnaissance-level surveys of the Study Area were conducted by Judy Bendix of Mosaic Associates on April 6, 2022, and wildlife biologist Jerry Roe of Sapere Environmental on September 26, 2022. Rare plant surveys of the Study Area were conducted by Tom Mahony and Neal Kramer on April 6th, June 2nd and July 13th, 2022 and vegetation communities were mapped

1 (<https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77>)

by Mr. Mahony, who also conducted an aquatic resources delineation of the Study Area on September 21, 2022 (Appendix D).

All surveys have been conducted on foot during daylight hours, documenting habitat conditions and assessing the potential occurrence of special-status plant and wildlife species. The suitability of habitat conditions in the Study Area to support special-status species was assessed based on the presence of habitat characteristics, documented records from the region and the surveyor's knowledge of the habitat requirements of target species.

The analysis of impacts on biological resources is based on implementation of the Project as described in Section 2 and the plans included in Appendix A.

4.0 Regulatory Background

The following sections describe the relevant regulatory context for this biological resources assessment, including applicable laws and regulations that were applied to the field investigation and the analysis of potential impacts of the Project on biological resources.

4.1 Federal and State Threatened and Endangered Species Acts

State and federal legislation has provided the California Department of Fish and Wildlife (CDFW) and U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) with mechanisms for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. The Federal Endangered Species Act (FESA) protects listed animal species from harm or "take" which is broadly defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. Take can also include habitat modification or degradation that results in death or injury to a listed species. The USFWS has jurisdiction over federally listed threatened and endangered wildlife and plant species under FESA. The NMFS has jurisdiction over marine and anadromous fish species.

The California Endangered Species Act (CESA) prohibits the take of any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. "Take" is defined by the state of California as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill". The CDFW has jurisdiction over State-listed species, and also maintains lists of "Species of Special Concern" that are defined as species that appear to be vulnerable to extinction because of declining populations, limited ranges, and/or continuing threats. California also protects animals classified as Fully Protected from take. Most but not all fully protected species are also listed under CESA.

Authorization may be required from the USFWS, NMFS and/or CDFW if activities associated with a proposed project will result in the "take" of a listed species. Federal authorization for incidental take of a listed species is afforded through the Section 7 or the Section 10 process. The Section 7 consultation process applies to actions taken by federal agencies that are considering authorization of discretionary projects. Section 7 is by and between the USFWS and/or the

NMFS and the federal agency contemplating a discretionary approval (i.e. the “federal nexus agency”), such as the USACE for Section 404 permits to authorize the discharge of fill into waters of the U.S. The Section 7 consultation process is triggered by a determination of the “action agency” – that is, the federal agency that is carrying out, funding, or approving a project – that the project “may affect” a listed species or critical habitat. If an action is likely to adversely affect a listed species or designated critical habitat, formal consultation between the nexus agency and the USFWS/NMFS is required. The USFWS and/or NMFS may resolve any issues informally with the nexus agency or may prepare a formal Biological Opinion assessing whether the proposed action would be likely to result in “jeopardy” to a listed species or if it could adversely modify designated critical habitat. Biological Opinions contain either a “jeopardy” or “non-jeopardy” decision. If the USFWS and/or NMFS concludes that a proposed project would result in adverse modification of critical habitat or would jeopardize the continued existence of a federal listed species (i.e. a jeopardy decision), the nexus federal agency would be unlikely to authorize its discretionary permit. If a “non-jeopardy” Biological Opinion is prepared, the nexus federal agency may authorize the discretionary permit making all conditions of the Biological Opinion conditions of its discretionary permit. A non-jeopardy Biological Opinion constitutes an “incidental take” permit that allows applicants to “take” federally listed species while otherwise carrying out legally sanctioned projects.

For non-federal entities, Section 10 provides the mechanism for obtaining take authorization through USFWS and/or NMFS approval of an applicant-prepared Habitat Conservation Plan (HCP). An HCP specifies the impacts to federally listed species that are likely to occur as a result of the proposed action, the measures the applicant will undertake to minimize and mitigate such impacts, and funding that will be available to implement those actions.

The basis for incidental take authorization under CESA is described in Section 2081 (b) and (c) of California Fish and Game Code, while Section 2080.1 provides for a consistency determination when a federal incidental take statement has been issued pursuant to Section 7 or Section 10 of FESA.

The Study Area is situated in Unit 3- Hayward-Pleasanton Ridge federally designated Critical Habitat for one species, the State and Federally-threatened Alameda whipsnake (*Masticophis lateralis eurxanthus*). No Habitat Conservation Plans or Natural Communities Conservation Plans encompass the Study Area.

4.2 California Environmental Quality Act

The California Environmental Quality Act (CEQA) generally requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of proposed projects, and to reduce those environmental impacts to the extent feasible. The laws and rules governing the CEQA process are contained in the CEQA statute (Public Resources Code Section 21000 and following), the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 and following), published court decisions interpreting CEQA, and locally adopted CEQA procedures.

A "project" is defined as a "whole action" subject to a public agency's discretionary funding or approval that has the potential to either (1) cause a direct physical change in the environment or (2) cause a reasonably foreseeable indirect physical change in the environment. "Projects" include discretionary activity by a public agency, a private activity that receives any public funding, or activities that involve the public agency's issuance of a discretionary approval and is not statutorily or categorically exempt from CEQA. (Pub. Res. Code § 21065.)

The City of Hayward will act as the lead agency for the proposed project. To determine whether the proposed development is a project subject to CEQA, it will:

- 1) Determine whether the project falls under a statutory or categorical exemption from CEQA;
- 2) If the project is not exempt, prepare an initial study to determine whether the project might result in significant environment effects; and
- 3) Prepare a negative declaration, mitigated negative declaration, or Environmental Impact Report (EIR) depending on the initial study.

The CDFW is a responsible agency under the California Environmental Quality Act (CEQA). It has the responsibility to review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

4.3 Native Plant Protection Act

The California Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA (Fish and Game Code section 1900 et seq.). The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

4.4 Sensitive Natural Communities

Sensitive natural communities are those that are considered rare in the region, support special-status plant or wildlife species, or receive regulatory protection (*i.e.*, Section 404 and 401 of the Clean Water Act, the CDFW Section 1600 *et seq.* of the California Fish and Game Code, and/or the Porter-Cologne Act). In addition, the California Natural Diversity Data Base (CNDDB) has designated a number of communities as rare; these communities are given the highest inventory priority (Holland 1986, Sawyer et al. 2009). Project impacts to Sensitive Natural Communities could be considered significant under CEQA. Three Sensitive Natural Communities are present within the Study Area, including Purple Needlegrass Grassland, the Coast Live Oak Woodland and Forest, and Willow Scrub.

4.5 Migratory Birds

State and federal law protect most bird species. The Migratory Bird Treaty Act (MBTA: 16 U.S.C., scc. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, their occupied nests and eggs.

Migratory birds are likely to be present and nest in or near the Study Area.

4.6 California Fish and Game Code

Under California Fish and Game Code 3503, it is unlawful to “take, possess, or needlessly destroy the nest or eggs of any bird”, except as otherwise provided under Fish and Game Code or regulation.

Birds of prey are protected in California under provisions of the State Fish and Game Code, Section 3503.5 (1992), which states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “taking” by the CDFW.

Birds of prey may be present and nest in or near the Study Area.

4.7 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C., scc. 668-668c) prohibits the take of bald or golden eagles, including their parts, nests, or eggs, unless authorized under a federal permit. The act prohibits any disturbance that directly affects an eagle or an active eagle nest as well as any disturbance caused by humans around a previously used nest site during a time when eagles are not present such that it agitates or bothers an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

Bald and golden eagles are not expected to nest in or near the Study Area due to the limited availability of suitable habitat.

4.8 Waters of the U.S. and State

Section 404 of the Clean Water Act (CWA) of 1972 regulates activities that result in the discharge of dredged or fill material into waters of the U.S., including wetlands. The primary intent of the CWA is to authorize the U.S. Environmental Protection Agency (EPA) to regulate water quality through the restriction of pollution discharges. The U.S. Army Corps of Engineers

(USACE) has the principal authority to regulate discharges of dredged or fill material into waters of the U.S.

On January 23, 2020, the EPA and the Corps finalized the Navigable Waters Protection Rule to define “Waters of the U.S.” The rule took effect on June 22, 2020. On August 30, 2021, the U.S. District Court for the District of Arizona vacated and remanded the Navigable Waters Protection Rule in the case of *Pascua Yaqui Tribe v. U.S. Environmental Protection Agency*. In light of this order, the agencies have halted implementation of the Navigable Waters Protection Rule and are interpreting “waters of the United States” consistent with the pre-2015 regulatory regime until further notice. Appendix D contains a detailed description and map of areas defined as “waters of the U.S.

Pursuant to Section 401 of the Clean Water Act, an applicant for a federal permit to conduct any activity which may result in discharge into navigable waters must provide a certification from the Regional Water Quality Control Board (RWQCB) or SWRCB that such discharge will comply with the state water quality standards (Cal. Code Regs. Tit. 23, §§3830 *et seq.*).

Under the Porter-Cologne Water Quality Control Act (Cal. Water Code §§13000-14920), the RWQCB is authorized to regulate the discharge of waste that could affect the quality of the State’s waters. “Waste” is broadly defined by the Porter-Cologne Act to include “sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation of whatever nature....” (Cal. Water Code §13050).

The CDFW exercises jurisdiction over wetland and riparian resources associated with rivers, streams, and lakes under California Fish and Game Code Section 1602. CDFW has the authority to regulate work that will substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed. Areas subject to CDFW’s jurisdiction over rivers, streams, creeks or lakes are usually bounded by the top-of-bank or the outermost edges of riparian vegetation. California Fish and Game Code Sections 5650 and 5652 generally prohibit disposal of waste within 150 feet of the top of bank, or placement where they may pass into waters of the state.

Discharges of fill material into the potentially jurisdictional wetlands and other waters of the U.S. and state would be regulated by the USACE and SWQCB, while CDFW would regulate work in riparian habitat and streams within the Study Area. The Proposed Project avoids features likely to be considered waters of the U.S. and thus exempt from USACE jurisdiction, but impacts a roadside ditch that may be considered a water of the State (Appendix D).

4.8 Eastern Alameda County Conservation Strategy

The Eastern Alameda County Conservation Strategy (EACCS) (ICF October 2010) was developed to provide a framework to protect, enhance and restore natural resources in eastern Alameda County, while improving and streamlining the environmental permitting process for impacts resulting from infrastructure and development projects. The Study Area is located within the EACCS Study Area, although the City of Hayward was not formally part of the planning

process for the EACCS. Project proponents may choose to use the Guidelines in the EACCS to address impacts and mitigation ratios for special-status species addressed by the EACCS or proceed with independent standard project-by-project permitting. Use of the EACCS offers project applicants, local jurisdictions and resource agencies with a consistent method to evaluate potential impacts and sources of mitigation.

4.9 Local Policies

The Natural Resources Element of the City of Hayward's general plan contains several goals and policies that are intended to protect, enhance and restore natural areas within the City's Planning Area. Goals and policies with relevance to the proposed project include:

Goal NR-1

Protect, enhance, and restore sensitive biological resources, native habitat, and vegetation communities that support wildlife species so they can be sustained and remain viable.

NR 1.1 Native Wildlife Habitat Protection

The City shall limit or avoid new development that encroaches into important native wildlife habitats; limits the range of listed or protected species; or creates barriers that cut off access to food, water, or shelter of listed or protected species.

NR1.2 Sensitive Habitat Protection

The City shall protect sensitive biological resources, including State and Federally designated sensitive, rare, threatened, and endangered plant, fish, and wildlife species and their habitats from urban development and incompatible land uses.

NR 1.3 Sensitive Species Identification, Mapping, and Avoidance

The City shall require qualified biologists to identify, map, and make recommendations for avoiding all sensitive biological resources on the project site, including State and Federally sensitive, rare, threatened, and endangered plant, fish, and wildlife species and their habitats using methods and protocols in accordance with the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and California Native Plant Society for all development applications proposed within sensitive biological resource areas.

NR-1.7 Native Tree Protection

The City shall encourage protection of mature, native tree species to the maximum extent practicable, to support the local eco-system, provide shade, create windbreaks, and enhance the aesthetics of new and existing development.

NR 1.12 Riparian Corridor Habitat Protection

The City shall protect creek riparian corridor habitats by:

- Requiring sufficient setbacks for new development adjacent to creek slopes,

- Requiring sensitive flood control designs to minimize habitat disturbance,
- Maintaining natural and continuous creek corridor vegetation,
- Protecting/replanting native trees, and
- Protecting riparian plant communities from the adverse effects of increased stormwater runoff, sedimentation, erosion, and pollution that may occur from improper development in adjacent areas.

These goals and policies were considered in the evaluation of the Proposed Project.

5.0 Study Area Description

The Study Area covers 17-acres and consists of undeveloped land with some areas of disturbance, including a graded hillside above Santos Ranch Road. Based on an analysis of historical aerial imagery, the road appears to have been constructed in the 1960s, with the hillside graded as part of road construction. Additional historic disturbance, dating to the 1960s, is present in the southern portion of the Study Area from apparent dirt roads and associated grading. Most of the Study Area was relatively undisturbed at the time of the reconnaissance-level site visits, though minor ground disturbance had occurred around the proposed homesite area, associated with story pole construction.

5.1 Vegetation

Six vegetation types are present on the Study Area: Coast Live Oak Woodland and Forest, Non-Native Grassland, Purple Needlegrass Grassland, Coyote Brush Scrub, Willow Scrub, and Ruderal Herbaceous (CRB 2022) (Figure 2). Coast Live Oak Woodland and Forest, composed of the *Quercus agrifolia* - *Quercus kelloggii* Association² within the *Quercus agrifolia* Forest and Woodland Alliance³, covers the northern portion of the Study Area on moderate to steep slopes. Coast Live Oak Woodland and Forest is dominated by a canopy of coast live oak (*Quercus agrifolia*⁴), with patchy dense areas of California black oak (*Quercus kelloggii*) and California bay (*Umbellularia californica*). Valley oak (*Quercus lobata*) and big-leaf maple (*Acer macrophyllum*) are occasionally present in the canopy and California buckeye (*Aesculus californica*) is scattered in the subcanopy. The understory consists of shrubs and herbaceous species, including poison oak (*Toxicodendron diversilobum*), creeping snowberry (*Symphoricarpos mollis*), oceanspray (*Holodiscus discolor*), California coffeeberry (*Frangula californica*), oso berry (*Oemleria cerasiformis*), soap plant (*Chlorogalum pomeridianum*), wild

² Association nomenclature follows the California Natural Community List (CDFW 2021).

³ Alliance nomenclature follows *A Manual of California Vegetation* (Sawyer et al. 2009) and nomenclatural updates in CNPS (2022).

⁴ Botanical nomenclature follows Baldwin et al. (2012), along with taxonomic updates in the *Jepson eFlora* (The Jepson Flora Project 2022).

pea (*Lathyrus vestitus*), goose grass (*Galium aparine*), yarrow (*Achillea millefolium*), hound's tongue (*Cynoglossum grande*), wood fern (*Dryopteris arguta*), goldback fern (*Pentagramma triangularis*), California polypody (*Polypodium californicum*), California maidenhair (*Adiantum jordanii*), California man-root (*Marah fabacea*), Chinese houses (*Collinsia heterophylla* var. *heterophylla*), Pacific snakeroot (*Sanicula crassicaulis*), milk maids (*Cardamine californica*), blue wildrye (*Elymus glaucus*), and Bermuda buttercup (*Oxalis pes-caprae*).

Non-Native Grassland, composed of the *Avena* spp. - *Bromus* spp. Herbaceous Semi-Natural Alliance, occurs on slopes in the western and southern portion of the Study Area. Non-Native Grassland consists primarily of non-native grasses and forbs adapted to disturbance, including slender wild oat (*Avena barbata*), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), red brome (*Bromus rubens*), hedgehog dogtail (*Cynosurus echinatus*), Italian ryegrass (*Festuca perennis*), rattail fescue (*Festuca myuros*), barley (*Hordeum murinum* subsp. *leporinum*), silver hair grass (*Aira caryophyllea*), annual bluegrass (*Poa annua*), filaree (*Erodium botrys*), sheep sorrel (*Rumex acetosella*), cutleaf geranium (*Geranium dissectum*), vetch (*Vicia sativa*), hairy vetch (*Vicia villosa*), rose clover (*Trifolium hirtum*), narrow leaf clover (*Trifolium angustifolium*), subterranean clover (*Trifolium subterraneum*), Italian thistle (*Carduus pycnocephalus*), smooth cat's ear (*Hypochaeris glabra*), and bur clover (*Medicago polymorpha*). Native grasses and forbs are widely scattered throughout the grassland, including purple needlegrass (*Stipa pulchra*), California brome (*Bromus sitchensis* var. *carinatus*), small fescue (*Festuca microstachys*), California poppy (*Eschscholzia californica*), miniature lupine (*Lupinus bicolor*), Q-tips (*Micropus californicus*), rusty popcornflower (*Plagiobothrys nothofulvus*), dwarf plantain (*Plantago erecta*), purple sanicle (*Sanicula bipinnatifida*), blue dicks (*Dipterostemon capitatus*), narrowleaf mules ears (*Wyethia angustifolia*), and western blue-eyed-grass (*Sisyrinchium bellum*).

Purple Needlegrass Grassland, composed of the *Nassella pulchra* – *Avena* spp. – *Bromus* spp. Association within the *Nassella* spp. - *Melica* spp. Herbaceous Alliance, was mapped in two areas where purple needlegrass formed at least 10 percent relative cover in the herbaceous layer (CRB 2022). Purple Needlegrass Grassland is dominated by purple needlegrass, along with native forbs including fiddleneck (*Amsinckia menziesii*), ear-shaped wild buckwheat (*Eriogonum nudum* var. *auriculatum*), Ithuriel's spear (*Triteleia laxa*), spikeweed (*Centromadia fitchii*), vinegar weed (*Trichostema lanceolatum*), California poppy, and miniature lupine. Non-native grasses and forbs are also present, including slender wild oat, filaree, and sheep sorrel.

Coyote Brush Scrub, composed of the *Baccharis pilularis* Shrubland Alliance, is located on a slope above Santos Ranch Road. Coyote Brush Scrub is dominated by a dense cover of coyote brush (*Baccharis pilularis* subsp. *consanguinea*), with California sagebrush (*Artemisia californica*), sticky monkeyflower (*Diplacus aurantiacus*), silver lupine (*Lupinus albifrons* var. *albifrons*), deerweed (*Acmispon glaber*), French broom (*Genista monspessulana*), California figwort (*Scrophularia californica*), chaparral clarkia (*Clarkia affinis*), poison oak, California poppy, and soap plant scattered throughout openings in the shrub canopy.

Willow Scrub, composed primarily of the *Salix lasiolepis* Shrubland Alliance, occurs in a seep at the toe of a graded slope west of Santos Ranch Road. Willow Scrub is dominated by a canopy of arroyo willow (*Salix lasiolepis*) and red willow (*Salix laevigata*), along with occasional big-leaf

maple, California bay, and coast live oak. The understory consists of shrubs—including Himalayan blackberry (*Rubus armeniacus*), poison oak, coyote brush, and French broom—as well as occasional hydrophytic herbaceous species including brown-head rush (*Juncus phaeocephalus*).

Ruderal Herbaceous habitat, conforming to no recognized vegetation classification system but containing ruderal elements of Non-Native Grassland and Coyote Brush Scrub, occurs on the graded slope above Santos Ranch Road. Ruderal Herbaceous habitat consists of abundant bare ground from the graded slope, along with a mix of native and non-native grasses and forbs described above for Non-Native Grassland and Coyote Brush Scrub, including wild oats, filaree, soft chess, red brome, rattail fescue, coyote brush, California sagebrush, sticky monkeyflower, California poppy, deerweed, and ear-shaped wild buckwheat.

Vegetation communities in the Study Area are quantified in Table 1.

Table 1. Vegetation Types in the Study Area

Vegetation Type	Global/State Rarity Rank ⁵	Sensitive Natural Community	Acres on Study Area
Non-Native Grassland	None	No	6.2
Coast Live Oak Woodland and Forest	Alliance: G5/S4 Association: S3?	Yes	6.1
Purple Needlegrass Grassland	G3/S3	Yes	0.5
Coyote Brush Scrub	G4/None	No	0.3
Willow Scrub	Alliance: G4/S4 Association: S3?	Yes	0.1
Ruderal Herbaceous	None	No	3.8

5.2 Geology and Soils

The Study Area is located between ~1,000 and ~1,400-foot elevation and consists of hilly, ridgeline and upper slope topography sloping toward the north and east. It is underlain by marine sedimentary and metasedimentary rocks (undivided Cretaceous sandstone, shale, and conglomerate; California Geological Survey 2010).

⁵ Vegetation types listed with a Rarity Rank of S1-S3 are typically considered Sensitive Natural Communities. Some vegetation types lack a Rarity Rank but are listed as Sensitive Natural Communities in the California Natural Community List (CDFW 2021).

Three soil types have been mapped on the study area in the Web Soil Survey (NRCS 2022):

LpF2—Los Gatos-Los Osos complex, 30 to 75 percent slopes, eroded, MLRA 15

LsC—Los Osos loam, seeped variant, 3 to 15 percent slopes

MhE2—Millsholm silt loam, 30 to 45 percent slopes, eroded

The aquatic resources delineation report (Appendix D) contains a description of the characteristics of these soil types.

5.3 Hydrology

The principal hydrologic sources for the study area are direct precipitation, surface sheet flow and shallow near-surface flow from surrounding uplands, and concentrated flow through five unnamed ephemeral drainages and a roadside ditch along Santos Ranch Road (Figure 3). The ephemeral drainages are unnamed tributaries to Arroyo de la Laguna, an intermittent creek located ~1-mile east of the Study Area. Arroyo de la Laguna drains southbound to its confluence with Alameda Creek, ~5.3-miles southeast of the Study Area. Alameda Creek drains generally westbound and discharges into San Francisco Bay.

The three northernmost ephemeral drainages on the Study Area drain northbound across the Study Area boundary. The remaining two ephemeral drainages, located in the north-central and south-central portions of the Study Area, drain eastbound into a concrete roadside ditch along Santos Ranch Road. All ephemeral drainages observed on the Study Area contain a bed, bank, and ordinary high water mark (OHWM), and were dry during the September 21, 2022 delineation.

The roadside ditch, presumably excavated for roadside drainage, is present in the southern portion of the Study Area along Santos Ranch Road. The ditch supports an earthen bed, bank, and OHWM in the upstream reach in the southern portion of the Study Area. The ditch drains into a concrete roadside ditch, ~2-3-feet wide, that drains along Santos Ranch Road for ~1,491-feet and into a culvert under the road. The culvert drains offsite, presumably discharging eventually, via storm drain networks, engineered channels, and/or other drainages, into Arroyo de la Laguna. The concrete roadside ditch drains along the eastern Study Area boundary but is located outside the Study Area.

A seep is located in the eastern portion of the Study Area, at the toe of the slope west of Santos Ranch Road. The seep drains into the concrete roadside ditch described above.

The aquatic resources delineation report in Appendix D describes the delineated features in detail. Figure 3 shows the location of delineated features.

6.0 Results

6.1 Special-status Plants

Forty-two special-status plant species have been documented in the Study Area region based on the background literature search discussed in Section 3. A list of these species is included in Appendix B. The Study Area is not located within designated Critical Habitat for any federally-listed plant species (USFWS 2022b). No special-status plants have been documented to occur on the Study Area in the CNDDDB (CDFW 2022). Two special-status plant species have been documented within three miles of the Study Area: Congdon's tarplant (*Centromadia parryi* subsp. *congdonii*) and Oregon polemonium (*Polemonium carneum*) (Figure 4).

During the April-July, 2022 plant surveys, 177 plant species were observed on the Study Area (Appendix B). No special-status plant species were observed on the Study Area during the surveys. Precipitation in the region was below average for the period of October 2021 to April 2022 (National Oceanic and Atmospheric Administration 2022). However, phenological development of grasses, forbs, shrubs, and trees on the Study Area appeared typical for the season, and no mowing, disking, or other largescale disturbance on the Study Area prevented identification of plant species encountered during the floristic surveys, though some minor ground disturbance, associated with story pole construction, had occurred around the proposed homesite area prior to the July 13, 2022 survey.

Since no special-status plant species were observed during the surveys, which were spaced throughout the blooming season and within the identification period of potentially occurring plant species, special-status plants are unlikely to inhabit the Study Area and no further botanical surveys are recommended.

6.2 Sensitive Natural Communities

Three potentially Sensitive Natural Communities are present on the Study Area: the *Quercus agrifolia* - *Quercus kelloggii* Association within the *Quercus agrifolia* Forest and Woodland Alliance (which generally corresponds to the mapped extent of *Quercus agrifolia* Forest and Woodland Alliance in Figure 2 based on the minimum mapping unit used in CRB (2022)), Purple Needlegrass Grassland, and Willow Scrub (Figure 2; Table 1). These vegetation types are discussed in detail in Section 5.1.

Project impacts are discussed in Section 7.

6.3 Special-status Wildlife

Based on the site reconnaissance, review of available databases and literature, and familiarity with local fauna, a total of 54 special-status wildlife species were considered as part of this assessment (USFWS 2022a,b; CDFW 2022c,d; CNDDDB 2022), and are detailed in Appendix C. Of these, the presence of 35 taxa were ruled out based on the lack of suitable habitat, local range restrictions, regional extirpations, lack of connectivity between areas of suitable or occupied

habitat, lack of secondary sign, absence of host plants, and/or incompatible land use and habitat degradation/alteration of on-site or adjacent lands. An additional five species⁶ are not expected to occur on site based on lack of specific habitat features such as burrows and a suitable prey base, while others were determined to have a low potential of occurrence based on the absence of observable nests and middens at the time of the field reconnaissance.

For the purpose of this report, only special-status species and nesting migratory birds and raptors with potential to occur on site and be directly or indirectly affected by Project activities are discussed in more detail below. A total of 14 special-status species have potential to occur onsite, including 5 federally or state listed, proposed, candidate or fully protected species, and 9 sensitive and locally rare species. Special-status fish and wildlife species recorded in the California Natural Diversity Database (CNDDDB 2022) for the region surrounding the Study Area are depicted in Figure 5. Those species with the potential to occur on site and could be directly or indirectly affected by the proposed activities, or are of significant local concern are discussed in more detail in Table 2.

Table 2. Potentially Occurring and Occurring Special-Status Fish and Wildlife Species

COMMON NAME	STATUS ²	HABITAT	POTENTIAL
Federal/State Listed, Proposed, Candidate and/or Fully Protected Species			
Alameda whipsnake <i>Masticophis lateralis euryxanthus</i>	Fed: FT,CH CA: ST	Inhabits the inner Coast Ranges in western and central Contra Costa and Alameda counties. Strongly correlated to scrub habitat and rocky outcroppings with adjacent grasslands and woodlands.	Possible
California red-legged frog <i>Rana draytonii</i>	FED: FT,CH CA: ST, SSC	A medium-sized frog that inhabits lowlands & foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation up to 1,500 meters in elevation.	Possible
Crotch bumble bee <i>Bombus crotchii</i>	Fed: None CA: SCE	Inhabits the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California. Food plants consist of <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Possible

⁶ California tiger salamander (*Ambystoma californiense*), golden eagle (*Aquila chrysaetos*), burrowing owl (*Athene cunicularia*), San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), and American badger (*Taxidea taxus*)

COMMON NAME	STATUS ²	HABITAT	POTENTIAL
Western bumble bee <i>Bombus occidentalis</i>	Fed: None CA: SCE	Historically a very common bee species in the western United States and western Canada. Food plants consist of <i>Melilotus</i> , <i>Cirsium</i> , <i>Trifolium</i> , <i>Centaurea</i> , <i>Chrysothamnus</i> , and <i>Eriogonum</i> .	Possible
White-tailed kite <i>Elanus leucurus</i>	Fed: None CA: FP	Inhabits grasslands, agriculture fields, oak woodlands, savannah and riparian habitats in rural and urban areas. Feeds primarily on California voles. Year-round resident of Central and Coastal California. Breeding begins in February; sometimes double-brooded.	Possible
Sensitive and Locally Rare Species			
Bridges' coast range shoulderband <i>Helminthoglypta nickliniana bridgesi</i>	Fed: None CA: SA	Inhabits rock piles, thistles and weedy grasslands on open hillsides. Recorded in Alameda and Contra Costa counties, on the west slope of Berkeley Hills, Marsh Creek Canyon, Marsh Creek Springs, Tilden Park and Point Isabel.	Possible
California horned lark <i>Eremophila alpestris actia</i>	Fed: None CA: WL	Common, abundant resident in a variety of open habitats, usually where large trees and shrubs are absent, ranging from low-elevation grasslands and deserts to dwarf shrub habitats above tree line. Found throughout much of the state. Less common in mountainous areas of the north coast and in conifer and chaparral habitats. Breeding begins in late-February; double to treble-brooded.	Possible
Cooper's hawk <i>Accipiter cooperii</i> (nesting)	Fed: None CA: WL	Inhabits dense stands of oak woodlands, riparian deciduous forests, or other forest habitats often near water & suburban areas. Hunts in broken woodlands & along forest edges. Breeding begins in April; single-brooded.	Possible
Ferruginous hawk <i>Buteo regalis</i>	Fed: None CA: WL	Breeds in the northern states and Canada; winters south from California and Texas to Mexico. Wintering habitat consists of open grasslands, deserts and cultivated fields. Breeding begins in April; single-brooded.	Possible

COMMON NAME	STATUS ²	HABITAT	POTENTIAL
Hoary bat <i>Lasiurus cinereus</i>	Fed: None CA: SA WBWG- M	A solitary foliage rooster that prefers evergreens, but will use deciduous trees in forested habitats, particularly in edge habitat. May forage in small to large groups. Feeds primarily on moths, but will eat a variety of other insects.	Possible
Obscure bumble bee <i>Bombus caliginosus</i>	Fed: None CA: SA	Inhabits coastal areas with the following host plants: <i>Baccharis</i> , <i>Cirsium</i> , <i>Lupinus</i> , <i>Lotus</i> , <i>Grindelia</i> and <i>Phacelia</i> species. Recorded from Alameda, Contra Costa, Del Norte, Humboldt, Marin, Mendocino, Monterey, San Luis Obispo, San Mateo, Santa Barbara and Sonoma counties.	Possible
Pallid bat <i>Antrozous pallidus</i>	Fed: None CA: SSC WBWG- H	Inhabits rocky terrain in open areas in lowlands, foothills and mountainous areas near water throughout California below 2,000 meters. Roost in caves, rock crevices, mines, hollow trees, buildings and bridges in arid regions in low numbers (<200). Active from March-November; migrates in some areas, but may hibernate locally.	Possible
Sharp-shinned hawk <i>Accipiter striatus</i>	Fed: None CA: SSC, BCC	Inhabits north-facing slopes in conifers, including ponderosa pine, black oak, & Jeffrey pines, preferably in riparian areas. Forages primarily for small birds along woodland edges & openings, hedgerows, brushy pastures, & shorelines. Breeding begins in April; single-brooded.	Possible
Townsend's western big-eared bat <i>Corynorhinus townsendii</i>	Fed: None CA: SSC WBWG- H	Inhabits caves and mines, but may also infrequently use bridges, buildings, rock crevices and hollows of large trees in coniferous forests, mixed mesophytic forests, deserts, native prairies, riparian communities, coastal lowlands, cultivated valleys and nearby hills characterized by mixed vegetation throughout California below 3,300 meters.	Possible

² Explanation of State and Federal Listing Codes

Federal Listings		California Listings	
CH	Critical Habitat	FP	Fully Protected
FT	Federally Threatened	ST	State Threatened
FE	Federally Endangered	SE	State Endangered
		SCE	State candidate for listing as Endangered
		SSC	CA Species of Special Concern
		WL	Watch list
Other			
BCC	U.S. Fish and Wildlife Service Birds of Conservation Concern. List of migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent the Service’s highest conservation priorities.		
SA	“Special Animals” is a general term that refers to all of the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of “species at risk” or “special status species”. The Department of Fish and Game considers the taxa on this list to be those of greatest conservation need.		
WBWG	The Western Bat Working Group. H – High Priority indicates species that are imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats; M – Medium Priority indicates a lack of information to assess the species’ status; L – Low Priority indicates relatively stable populations based on available data.		

Federal/State Listed, Proposed, Candidate or Fully Protected Fish and Wildlife Species

Based on the field investigations, review of available databases and literature, familiarity with local flora, and assessment of habitat suitability, 5 federally- or State-listed, Proposed, Candidate, or Fully Protected wildlife species have the potential to occur within the Study Area (USFWS 2022b,c; CDFW 2022b,c,d). A brief description of this species, its habitat requirements, local occurrences, assessment of impacts, and avoidance/minimization measures are discussed below.

Alameda Whipsnake

The Alameda whipsnake was listed as a federally-listed threatened species on December 5, 1997 (62 Federal Register [FR] 64306) and listed as a state-threatened on June 27, 1971 (CDFW 2022c). A recovery plan was published in 2002 (USFWS 2002). The Alameda whipsnake is a fast moving, diurnal snake with a broad head, large eyes, and measures 2 ½ to 5 feet in length

(Stebbins 2003). It is a subspecies of the California whipsnake (*Masticophis lateralis*) distributed throughout the Sierra Nevada and Coast Range mountains from Siskiyou County in northern California to the flatland desert in Cañon de Los Reyes in southern Baja California (Stebbins 2012). The Alameda whipsnake ranges from the inner Coast Ranges in western and central Contra Costa and Alameda counties (Jennings 1983, McGinnis 1992, Swaim 1994). Inhabiting mixed chaparral, coastal scrub, and adjacent annual grassland and oak/bay woodlands, the species is distributed throughout portions of Contra Costa, Alameda County, northern Santa Clara, and western San Joaquin counties (USFWS 2011). Habitat fragmentation has restricted its range into five recognized subpopulations: Tilden-Briones population, Oakland-Las Trampas population, Hayward-Pleasanton Ridge population, Mount Diablo-Black Hills population, and Sunol-Cedar Mountain population.

Swaim (1994) reported home ranges centered on coastal scrub vegetation types, but were reported using adjacent vegetation types (e.g., grassland, oak-bay woodland, and oak savanna) up to 500 feet from core coastal scrub and chaparral habitats. This habitat provides cover for snakes during dispersal, shelter from predators, and a variety of microhabitats where whipsnakes can move to regulate their body temperature (Swaim 1994). Alvarez et al. (2005) evaluated Alameda whipsnake occurrence data from 1948 to 2004 and found that they used associated habitats including annual grassland, oak woodland, riparian and other non-native and disturbed open habitats ranging from 0.6-mile to 4.54 miles from core chaparral/scrub plant communities. Important habitat features used by Alameda whipsnake include small mammal burrows, rock outcrops, talus, and other forms of shelter that provide snakes with alternative habitats for temperature regulation, protection from predators, sites for egg-laying, and winter hibernaculum.

Critical Habitat

Critical habitat was designated for this species on October 2, 2006 (71 FR 58176) and encompasses 154,834 acres in Alameda, Contra Costa, Santa Clara, and San Joaquin counties comprising critical habitat units. Critical habitat designations require the listing of primary constituent elements (PCEs) that outline the conservation needs of the species including the space for individual and population growth; sufficient food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, and rearing (or development) of offspring; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species. Such necessities may require special management considerations and protection (50 CFR § 424.14). The PCEs for the Alameda whipsnake are defined as:

- PCE-1. Scrub/shrub communities with a mosaic of open and closed canopy. The USFWS defines PCE-1 as “scrub/shrub vegetation dominated by low- to medium-stature woody shrubs with a mosaic of open and closed canopy, as characterized by the chamise, chamise-eastwood manzanita, chaparral whitethorn, and interior live oak shrub vegetation series occurring at elevations from sea level to approximately 3,850 feet as identified in the Manual of California Vegetation (Sawyer and Keeler-Wolf 2009), and A Guide to Wildlife Habitats of California (Mayer and Laudenslayer 1988). Such scrub/shrub vegetation within these series form a pattern of open and closed canopy used by the Alameda whipsnake for shelter from predators; temperature regulation, because it provides sunny and shady locations; prey-viewing opportunities; and nesting habitat and

substrate. These features contribute to support a prey base consisting of western fence lizards and other prey species such as skinks, frogs, snakes, and birds” (USFWS 2006).

- PCE-2. Woodland or annual grassland plant communities contiguous to lands containing PCE-1. The USFWS defines PCE-2 as “woodland or annual grassland vegetation series comprised of one or more of the following: blue oak, coast live oak, California bay, California buckeye, and California annual grassland vegetation series (as identified in the Manual of California Vegetation (Sawyer and Keeler-Wolf 2009), A Guide to Wildlife Habitats of California (Mayer and Laudenslayer 1988), and California Wildlife Habitat Relationship System are PCE 2. This mosaic of vegetation is essential to the conservation of the Alameda whipsnake because it supports a prey base consisting of western fence lizards and other prey species such as skinks, frogs, snakes, and birds, and provides opportunities for: (1) Foraging by allowing snakes to come in contact with and visualize, track, and capture prey (especially western fence lizards along with other prey such as skinks, frogs, birds); (2) short and long distance dispersal within, between, or to adjacent areas containing essential features (i.e., PCE 1 or PCE 3); and (3) contact with other Alameda whipsnakes for mating and reproduction” (USFWS 2006).
- PCE-3. Lands containing rock outcrops, talus, and small mammal burrows. The USFWS defines PCE-3 as the areas “used for retreats (shelter), hibernacula, foraging, dispersal, and provide additional prey population support functions” (USFWS 2006).

The study area is located within the eastern portion of Alameda whipsnake critical habitat Unit 3 – Hayward-Pleasanton Ridge, which consists of 25,966 acres in Alameda County situated west of Interstate 680 and south of Interstate 580. All three PCE’s are present within the study area comprising a mosaic of scrub vegetation (PCE 1), adjacent grasslands and woodlands (PCE 2), and rocky outcrops (PCE 3). PCE 1 comprises 0.3-acre of coyote brush scrub and 0.1-acre of willow scrub totaling 0.4-acres. PCE 2 comprises 6.2 acres of non-native grassland, 0.5-acre of purple needlegrass grassland, and 6.1 acres of coast live oak woodland and forest. Elements qualifying as PCE 3 include scattered areas of rock outcrops and sparse small mammal burrows.

Habitat Suitability and Occurrence Data

Suitable habitat is present throughout the study area particularly among the rock outcrops, coyote brush scrub, willow scrub, coast live oak woodland and forest, and adjacent grasslands. The rock outcrops provide suitable refugia habitat and the mosaic of scrub, woodland, and grassland habitats provide suitable foraging habitat. The study area is situated within a continuous matrix of mostly undeveloped habitat with Santos Ranch Road and rural residences functioning as a potential source of mortality and injury. However, these features do not act as a barrier to migration, dispersal or daily movements within a whipsnake’s home range.

Sixteen occurrences have been reported within five miles of the study area with two located within 3 miles. Records are not depicted on Figure 5 to reduce risk to species posed by illegal trapping and poaching.

- Occurrence 39 (EONDX 29437). Located 1.3 miles to the north. Observation date was April 4, 1991, one adult that was captured, fitted with a radio-transmitter and monitored

for one year. Habitat consisted of east and northeast facing coyote brush scrub. Moller Ranch prior to the Moller Estates Development. Possibly extirpated.

- Occurrence 38 (EONDX 29437). Located 1.6 miles to the northwest. Observation date was April 12, 1996, comprising one juvenile. Habitat consisted of scrub on the east slope of the main ridge. Land was owned by the American Land Conservancy. Presumed extant.

California Red-Legged Frog

The California red-legged frog is a medium-sized frog that predominantly inhabits permanent water sources such as streams, lakes, marshes, natural and man-made ponds, and ephemeral drainages in valley bottoms and foothills up to 1,500 meters (4,921 feet) in elevation (Jennings and Hayes 1994, Bulger et al. 2003, Stebbins 2012). Adults breed in a variety of aquatic habitats, while larvae and metamorphs use streams, deep pools, backwaters of streams and creeks, ponds, marshes, sag ponds, dune ponds, and lagoons. Stock ponds are frequently used for breeding when they provide suitable hydroperiod, pond structure, vegetative cover, and are managed to control nonnative predators such as bullfrogs and exotic fish. Breeding occurs between November and April within still or slow-moving water with light to dense, riparian or emergent vegetation, such as cattails (*Typha* spp.), tules (*Schoenoplectus* and *Bulboschoenus* spp.) and overhanging willows (*Salix* spp.) (Hayes and Jennings 1988). Egg masses are attached to vegetation below the surface and hatch after 6 to 14 days (Storer 1925, Jennings and Hayes 1994). Larvae undergo metamorphosis 3½ to 7 months following hatching and reach sexual maturity 2 to 3 years of age (Jennings and Hayes 1984, 1994).

Tatarian (2008) noted that a 57% majority of frogs fitted with radio transmitters in the Round Valley of eastern Contra Costa County stayed at their breeding pools, whereas 43% moved into adjacent upland habitat or to other aquatic sites. This study reported a peak of seasonal terrestrial movement in the fall months corresponding to 0.2-inches of precipitation that tapered off into spring. Upland movement activities ranged from 3 to 233 feet, averaging 80 feet, and were associated with a variety of refugia including ground squirrel burrows at the bases of trees or rocks, logs, grass thatch, crevices, cow hoof prints, and a downed barn door; others were associated with upland sites lacking refugia (Tatarian 2008). The majority of terrestrial movements lasted from 1 to 4 days; however, one female was reported to remain in upland habitat for 50 days (Tatarian 2008). Uplands closer to aquatic sites were more often used and were more commonly associated with areas exhibiting higher object cover, e.g. small woody debris, rocks, and vegetative cover. The distance moved is site-dependent, though one recent study shows that only a few frogs move farther than the nearest suitable non-breeding habitat (Fellers and Kleeman 2007). In this Marin County study, the furthest distance traveled was 1.4 kilometers (0.9-mile) and most dispersing frogs moved through grazed pastures to reach the nearest riparian habitat (Fellers and Kleeman 2007). Bulger et al. (2003) did not observe habitat preferences among frogs moving between ponds. They did note that when breeding ponds dry, California red-legged frogs use moist microhabitats of dense shrubs and herbaceous vegetation within 100 meters (328 feet) of ponds.

Habitat Suitability and Occurrence Data

The study area is not located within designated critical habitat for the California red-legged frog, but it is situated 0.9-mile east of Unit ALA-1B, Cook Canyon. ALA-1B comprises 10,159 acres

of land situated south of Interstate 580 and east of Mission Blvd. No aquatic habitat is present within the study area; however, five ponds are located within one mile of the study area based on a review of aerial photography and CNDDDB occurrence records. Four of these ponds have confirmed breeding populations and may also provide suitable overwintering and year-round habitat. The CNDDDB reports four occurrences within one-mile of the study area, an additional 13 within three miles and an additional 23 within five miles. California red-legged frog occurrences within one-mile of the study area:

- CNDDDB occurrence #1720 (EONDX 120345). Livestock pond within actively grazed grasslands. Larvae, metamorphs and adults detected during ongoing monitoring from 2016 to 2020. This is a functioning pond with emergent vegetation and an actively breeding population. The pond is located approximately 1,020 linear feet west of the study area and within the maximum dispersal range for the species.
- CNDDDB occurrence #1721 (EONDX 120346). Livestock pond within actively grazed grasslands managed by the East Bay Regional Park District and the Pleasanton Ridge Regional Park. A single larva was observed on May 12, 2018, and the population is considered extant. The pond is located approximately 1,040 linear feet south of the study area and within the maximum dispersal range for the species.
- CNDDDB occurrence #1732 (EONDX 120347). Livestock pond within actively grazed grasslands managed by the East Bay Regional Park District. Metamorphs and adults were detected in 2016 in what was considered to be an active breeding pond. The pond is located approximately 0.8-mile west of the study area and within the maximum dispersal range for the species.
- CNDDDB occurrence #1731 (EONDX 120356). Livestock pond within actively grazed grasslands managed by the East Bay Regional Park District and the Pleasanton Ridge Regional Park. Metamorphs and adults were detected in 2016 in what was considered to be an active breeding pond. The pond is located approximately 1.0-mile south of the study area and within the maximum dispersal range for the species.

Habitat within the study area comprises a matrix of grassland, oak woodland and scrub habitat supporting annual grasses, herbaceous vegetation, and shrubs that provide suitable upland foraging and refugia habitat. California red-legged frogs can spend several days to weeks in upland habitat away from aquatic features during cool, damp periods and utilize dense vegetative ground cover. Based on the proximity of nearby breeding populations, confirmed observations, and the absence of movement barriers, California red-legged frogs can be expected to forage, migrate, and disperse across the study area.

Crotch Bumble Bee

The crotch bumble bee is native to California and Baja, Mexico, but has also been reported from western Nevada. It inhabits the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California (USDA, 2012). Associated food plants consist of *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum* species. The species was advanced to candidacy for listing as an invertebrate (under the definition of “fish” as defined by §45 of the California Fish and Game Code) by the Fish and Game Commission in June 2019, subsequently removed in 2021 by a trial court decision, and reinstated for candidacy listing as endangered under the California ESA on

September 30, 2022 by the California Supreme Court (*Almond Alliance of California et al. v. Fish and Game Commission et al.*, and *Xerces Society for Invertebrate Conservation et al.*, C093542).

Habitat Assessment and Occurrence in the Project Vicinity

The study area supports suitable habitat for the crotch bumble bee and associated food plants present on site include the ear-shaped wild buckwheat (*Eriogonum nudum* var. *auriculatum*) in purple needlegrass grassland, California poppy (*Eschscholzia californica*) in the non-native grasslands, and chaparral clarkia (*Clarkia affinis*) in coyote brush scrub community. One CNDDDB occurrence has been reported within five miles of the study area (CDFW 2022b). Occurrence #17 (EONDX 98558) is mapped as a non-specific location listed at the City of Pleasanton dating back to 1932. Bumble bee species are underrepresented in the CNDDDB and the absence of occurrence data does may not accurately reflect their absence in the project region.

Western Bumble Bee

The western bumble bee is historically a very common bee species in the western U.S. and western Canada, but populations from British Columbia to Central California have become extirpated or are severely declining. Food plants consist of *Melilotus*, *Cirsium*, *Trifolium*, *Centaurea*, *Chrysothamnus*, and *Eriogonum* species. It is an important pollinator for various flowering plants and commercial food crops including avocados, peppers, tomatoes, cranberries, and various other berry crops. The western bumble bee was advanced to candidacy for listing as an invertebrate (under the definition of “fish” as defined by §45 of the California Fish and Game Code) by the Fish and Game Commission in June 2019, subsequently removed in 2021 by a trial court decision, and reinstated for candidacy listing as endangered under the California ESA on September 30, 2022 by the California Supreme Court (*Almond Alliance of California et al. v. Fish and Game Commission et al.*, and *Xerces Society for Invertebrate Conservation et al.*, C093542).

Habitat Assessment and Occurrence in the Project Vicinity

The study area supports suitable habitat for the western bumble bee and associated food plants present on site include the ear-shaped wild buckwheat (*Eriogonum nudum* var. *auriculatum*) in purple needlegrass grassland, and rose clover (*Trifolium hirtum*), narrow leaf clover (*Trifolium angustifolium*), and subterranean clover (*Trifolium subterraneum*) in the non-native grasslands. One CNDDDB occurrence has been reported within five miles of the study area (CDFW 2022b). Occurrence #230 (EONDX 100208) is mapped as a non-specific location listed at the City of Pleasanton dating back to 1952. An additional 23 CNDDDB occurrences have been reported within 20 miles of the project footprint. Bumble bee species are underrepresented in the CNDDDB and the absence of occurrence data does may not accurately reflect their absence in the project region.

White-Tailed Kite

The white-tailed kite is designated as a fully protected species by §3511 of the California Fish and Game Code. This species receives additional protection under the Migratory Bird Treaty Act and California Fish and Game Code §3503. White-tailed kites inhabit open grasslands and savannahs, and breed in a variety of habitats, including grasslands, cultivated fields, oak woodlands and suburban areas where prey is abundant. Nests are built in trees typically near a

water source and may occur in suburban areas with adjacent open areas with abundant prey. Breeding occurs between February and July and the species can be double-brooded in some years (Baicich and Harrison, 2005). During the non-breeding season, white-tailed kites may roost communally (Dunk, 1995). White-tailed kites prey on small mammals, reptiles and occasionally, birds.

Habitat Suitability and Occurrence Data

Suitable nesting habitat is present among the mature trees on site and suitable foraging habitat is present throughout the study area. Evidence of small mammal activity within the study area was minimal comprising scattered gopher burrows. Sign of other prey species including meadow voles, mice, and lizards was observed on site. One CNDDDB occurrence was reported within five miles of the study area (CDFW 2022b). Occurrence #158 (EONDX 79371) located 4.1 miles to the north dating back to 2009. Despite the paucity of nesting data in the area, white-tailed kites are regularly observed foraging in the region.

6.4 Sensitive Species

Based on the field investigations, review of available databases and literature, familiarity with local fauna, and on-site habitat suitability, 9 species designated as rare, sensitive, declining, locally endemic, special concern, high priority, or having limited or restricted distribution are considered to have the potential to occur within the Study Area (USFWS 2022b,c; CDFW 2022b,c,d) (Appendix C). A brief description of these species, their habitat requirements, local occurrences, survey results, assessment of impacts, and impact avoidance/ minimization measures are discussed below.

Bridges' Coast Range Shoulderband

The Bridge's Coast Range shoulderband snail is listed as a Special Animal by the CDFW (2022d). This species typically inhabits rock piles, thistles and weedy grasslands on open hillsides, and have also been found under woody debris in streamside oak woodland habitat as well as ruderal habitat. Their known range includes Contra Costa County and northern Alameda County; recorded in the west slope of Berkeley Hills, Marsh Creek Canyon, Marsh Creek Springs, Tilden Park, Point Isabel (Roth 1999).

Habitat Assessment and Occurrence in the Project Vicinity

Suitable habitat is present throughout the study area especially in areas supporting thistles (*Cirsium* spp.), star thistle (*Centaurea* spp.), rock outcrops and small woody debris. There are no CNDDDB occurrences reported within five miles of the study area (CDFW 2022b). Snails and other invertebrates are underrepresented in the CNDDDB and the absence of occurrence data may not accurately reflect their absence in the project region.

California Horned Lark

The California horned lark is one of 15 subspecies in western North America ranging from the inner Coast Ranges and San Joaquin Valley to northern Baja California, Mexico (Beason 1995). They inhabit bare ground, deserts, short-grass prairies, tundra, sandy/stony area, agricultural feed lots, and fallow row crops characterized by open, treeless areas with low vegetation from sea

level to 4,000 meters (Beason 1995, Baicich and Harrison 2005). Nest sites are built on bare ground often next to tufts of grass or a stone (Beason 1995, Baicich and Harrison 2005). Breeding begins in late-February and breeding pairs are double to treble-brooded (Baicich & Harrison 2005).

Habitat Suitability and Occurrence Data

Suitable nesting and foraging habitat is present throughout the study area. There are no CNDDDB nesting occurrences reported within five miles of the study area (CDFW 2022b). However, the species is known to occur in the project region. Nests of this species are cryptic and difficult to locate suggesting that their occurrence is likely underrepresented in the CNDDDB.

Cooper's Hawk

The Cooper's hawk is a medium-sized Accipiter that ranges from southern Canada to Mexico. It inhabits dense stands of oak woodlands, riparian deciduous forests, or other forest habitats often near water and suburban areas (Baicich & Harrison 2005). This woodland raptor hunts in broken woodlands, along forest edges and suburban areas for medium-sized birds and mammals (Curtis et al. 2006). Typical nest site selection is characterized by mature trees with significant canopy cover; although, species will nest in suburban areas in a variety of trees (Curtis et al. 2006). Breeding begins in April and are single-brooded (Baicich & Harrison 2005).

Habitat Suitability and Occurrence Data

Cooper's hawks utilize the same nesting habitat as white-tailed kites. The mature trees on site provide suitable nesting habitat and suitable foraging habitat is present throughout the study area. One CNDDDB nesting occurrence was reported within 5 miles of the study area (CDFW 2022b). Occurrence #113 (EONDX 67690) is located 4.9 miles to the south near Niles Canyon Road and Mission Boulevard in a California bay tree in 2006. Cooper's hawks are a relatively common throughout Alameda County and have the potential to nest or forage on site.

Ferruginous Hawk

The ferruginous hawk is the largest Buteo species in North America. They breed in the northern states and Canada and winters south from California and Texas to Mexico. Wintering habitat consists of open grasslands, deserts and cultivated fields (Baicich & Harrison 2005). Species is a California winter resident from August to early March. Ferruginous hawks feed primarily on rabbits, ground squirrels, prairie dogs, and gophers (Bechard and Schmutz 1995). Breeding begins in April and are single-brooded (Baicich & Harrison 2005).

Habitat Suitability and Occurrence Data

Overwintering ferruginous hawk utilize a variety of open grassland, agricultural, and desert habitats. The grasslands and edge habitat along the woodlands within the study area provide suitable overwintering and foraging habitat. No CNDDDB overwintering records have been reported within five miles of the study area (CDFW 2022b). Overwintering species are infrequently reported and are underrepresented in the CNDDDB. Based on the location of the project amidst a larger matrix of grasslands and woodlands with abundant prey, ferruginous hawks have the potential to overwinter, roost, and forage within the study area.

Hoary Bat

The hoary bat is designated a Medium Priority species by the Western Bat Working Group (CDFW 2022d). Hoary bats are ubiquitous but uncommon throughout California and roost solitarily in the foliage in primarily evergreens (pine, redwood, hemlock and spruce) and secondarily in deciduous trees, particularly in edge habitat exhibiting a preference for oak, maple, elder, and ash trees (Jackson 1961, Bolster 2005). They forage in small to large groups on large prey such as moths, beetles, crickets, and dragonflies (Barclay 1985). They emerge up to 5 hours after sunset to forage and employ a long-range foraging strategy using fast straight-line paths (Barclay 1985). They may remain at summer habitats and hibernate overwinter in lower latitudes but typically migrate to warmer climates in the winter. Hoary bats have delayed implantation, mating from late summer to early fall, and give birth the following June (Barclay 1989).

Habitat Suitability and Occurrence Data

Suitable roosting habitat is present among the mature trees particularly along the edge habitat between the woodlands and grasslands/scrub. They are less likely to forage on site based on their preference for riparian habitat, but they may forage at nearby stock ponds. No CNDDDB occurrences are reported within 5 miles, but they are documented in all cardinal directions within 20 miles of the study area (CDFW 2022b).

Obscure Bumble Bee

The obscure bumble bee ranges along the Pacific Coast from British Columbia to Southern California. Some occurrences have been reported from the eastern side of the Central Valley. Food plants include *Baccharis*, *Cirsium*, *Lupinus*, *Lotus*, *Grindelia*, and *Phacelia* species. This species has been recorded from Alameda, Contra Costa, Del Norte, Humboldt, Marin, Mendocino, Monterey, San Luis Obispo, San Mateo, Santa Barbara, and Sonoma counties.

Habitat Assessment and Occurrence in the Project Vicinity

The study area supports suitable habitat for the obscure bumble bee and associated food plants present on site include the coyote brush (*Baccharis pilularis* subsp. *consanguinea*) and miniature lupine (*Lupinus bicolor*) in the coyote brush scrub vegetation community, and silver lupine (*Lupinus albifrons* var. *albifrons*) in the non-native grasslands. No reported CNDDDB occurrences within 5 miles, but species documented within 20 miles of the study area to the north and south (CDFW 2022b). Bumble bee species are underrepresented in the CNDDDB and the absence of occurrence data does may not accurately reflect their absence in the project region.

Pallid Bat

The pallid bat is designated as a California Species of Special Concern by the CDFW and a High Priority species by the Western Bat Working Group (CDFW 2022d). The pallid bat is a relatively large, light-colored bat ranging throughout the southwestern United States from interior British Columbia to Mexico (Hermanson and O'Shea 1983, Sherwin and Rambaldini 2005). They inhabit foothills and lowlands near water throughout California below 2,000 meters (6,560 feet) in elevation, but are most abundant in arid deserts and grasslands particularly in areas with rock outcrops near water (Hermanson and O'Shea 1983). Pallid bats typically roost in small groups in a variety of habitat features including bridges, buildings, tree hollows in coast redwoods, bole

cavities in oaks, exfoliating bark, rock crevices in outcrops and cliffs, caves and mines as both day and night roosts (Sherwin and Rambaldini 2005). Roost sites may change seasonally and are typically reused for a few days to weeks. Pallid bats primarily feed on a variety of arthropods typically capturing prey on the ground or gleaning from surfaces near the ground, and forage over shrub-steppe grasslands, oak savannah grasslands, open Ponderosa pine forests, talus slopes, gravel roads, orchards and vineyards. Parturition varies with latitude, but generally occurs from late-April to August; maternal colonies disperse by October (Hermanson and O’Shea 1983). Overwintering is common along the California coast, but individuals may migrate short distances between winter and summer roosts (Sherwin and Rambaldini 2005).

Habitat Assessment and Occurrence in the Project Vicinity

The study area supports suitable roost habitat among the rock outcrops and mature trees with hollows, bole cavities and exfoliating bark in the coast live oak woodland and forest vegetation community. The entire property provides suitable foraging habitat. Three CNDDDB occurrences have been reported within 5 miles of the study area (CDFW 2022b).

- CNDDDB occurrence #331 (EONDX 68758). Observation consisted of seven adult males at a bridge roost in Santa Rita east of the intersection of Foothill Road and Gold Creek. The site is located 1.5 miles to the north and is presumed extant.
- CNDDDB occurrence #440 (EONDX 115196). Observation consisted of a single adult at a bridge over Alameda Creek along Highway 84. The site is located 4.3 miles to the south and is presumed extant.
- CNDDDB occurrence #105 (EONDX 61767). Observation is from a non-specific location identified as the La Costa Valley USGS quad within riparian coastal oak woodland and non-native annual grassland habitat. The site is located 4 miles to the southeast and is presumed extant.

Sharp-Shinned Hawk

The sharp-shinned hawk is widespread across North America and a year-round resident in the Bay Area. This accipiter prefers north-facing slopes in dense stands of deciduous, conifer and mixed hardwood trees, including ponderosa pine, black oak, and Jeffrey pines, preferably in riparian areas; also known to nest in suburban areas. Species attracted to rural and suburban areas especially near bird feeders often during winter months (Bildstein and Meyer 2000). It forages primarily for small birds along woodland edges and openings, hedgerows, brushy pastures, and shorelines, but will also prey on small mammals, reptiles, and insects. Breeding begins in April and is single-brooded (Baicich and Harrison 2005).

Habitat Assessment and Occurrence in the Project Vicinity

Sharp-shinned hawks utilize the same nesting habitat as white-tailed kites. The mature trees on site provide suitable nesting habitat and suitable foraging habitat is present throughout the study area. One CNDDDB nesting occurrence was reported within 5 miles of the study area (CDFW 2022b). Occurrence #1 (EONDX 67690) is located 4.8 miles to the west among a young stand of coast live oaks in 1994. Sharp-shinned hawks are less common than Cooper’s hawks but have the potential to nest or forage on site.

Townsend's Western Big-Eared Bat

The Townsend's western big-eared bat is an uncommon, year-round resident of California inhabiting a variety of habitats except alpine and subalpine, but most common in mesic environments. This species is a moth specialist and roosts in caves, mines, bridges, building, rock crevices and tree hollows in coastal lowlands, cultivated valleys and nearby hills characterized by mixed vegetation below 3,300 meters. Townsend's bats exhibit high site fidelity and are highly sensitive to disturbance. Maternity roosts typically comprise less than 100 individuals in mines, caves, buildings and tunnels. They forage by gleaning insects from trees and shrubs along edge habitats near water. Foraging bouts peak in late evening and may travel long distances outings. Winter hibernacula are used from October to April.

Habitat Assessment and Occurrence in the Project Vicinity

The study area supports suitable roost habitat among the rock outcrops and mature trees with hollows, bole cavities and exfoliating bark in the coast live oak woodland and forest vegetation community. The entire property provides suitable foraging habitat although the species is likely to seek foraging areas along riparian corridors or the nearby stock ponds. One CNDDDB occurrence has been reported within 5 miles of the study area (CDFW 2022b). Occurrence #422 (EONDX 93518) consists of a single adult male observed on June 27, 2012, in a barn scheduled for demolition at Sycamore Creek Way. The location is 3.7 miles to the east-southeast.

7.0 Potential Impacts and Mitigation Measures

Impacts of the Project and suggested mitigation measures are listed below. Impacts of the Project would be rendered less-than-significant with implementation of the mitigation measures described below.

7.1 Significance Criteria

CEQA Guidelines section 15065 creates certain "mandatory findings of significance" that function as significance thresholds affecting certain biological resources. Pursuant to that section, a project will have a significant environmental effect if the project would:

- Substantially reduce the habitat of a fish or wildlife species
- Cause a fish or wildlife population to drop below self-sustaining levels
- Threaten to eliminate a plant or animal community
- Substantially reduce the number or restrict the range of an endangered, rare or threatened species.

In addition, based upon the criteria presented in Appendix G of the *CEQA Guidelines*, implementation of the proposed project would have a significant impact if it were to cause any of the following:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any special-status species identified as a candidate, sensitive, or special-status species in local or regional plans, policies or regulations, or by the CDFW or USFWS.

- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- 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.

The impact analysis contained in this section assumes that the site will be developed in a manner and scale substantially similar to the Project description in Section 2, and the Appendix A plans.

7.2 Impacts to Special-status Plants

Based on the April, June, and July 2022 rare plant surveys, no special-status plant species were found in the Study Area. Given the results of the surveys, the Proposed Project would not impact rare plants, and no mitigation measures are warranted.

7.3 Impacts to Sensitive Natural Communities

Project construction will impact two Sensitive Natural Communities, including permanent and temporary impacts to Purple Needlegrass Grassland, and permanent impacts to Coast Live Oak Woodland and Forest as shown in Table 3, and discussed below. Impacts to Non-native grassland, Coyote Brush Scrub and Ruderal Herbaceous vegetation communities as well as Waters of the State will also occur.

Impact 1. Construction-related Impacts to Sensitive Natural Communities and Waters of the State

Construction-related activities would involve site preparation, grading for the driveway, homesite, and leach field, construction of the home, and installation of drainage facilities (Appendix A). Driveway construction requires vegetation removal, remedial grading to repair slides, and grading and paving for the designed alignment. Homesite construction requires vegetation removal, and grading to create a level pad for the house, garage, water tanks, driveway with turnaround and landscaping. Drainage from the homesite will be conveyed in above-ground lines that will be anchored to manually installed piers, discharging to an existing drainage structure. Driveway drainage will be conveyed to two new outfalls to the existing roadside ditch, and a third storm drain line will discharge to an existing mid-slope inlet that drains to the roadside ditch.

Driveway construction also entails the installation of a culvert to cross the roadway ditch, and riprap placement in the ditch to abate erosion. While the ditch has a bed, bank and pattern of scour/sediment deposition, it lacks a preponderance of hydrophytic vegetation and hydric soil indicators. Culvert and riprap placement in the ditch would be permanent features, but these impacts would not be considered significant due to the poor habitat value and eroding character of the areas of earthen ditch that would be subject to construction disturbance. Furthermore, the riprap placed in the ditch would slow high velocity flows that result in further erosion, and that may contribute to downstream sediment deposition. While culvert and riprap placement in the ditch would not be a significant impact, they would require the discharge of fill material in what may be regarded as Waters of the State, potentially requiring authorization from CDFW pursuant to Section 1602 of the California Fish and Game Code and the Regional Water Quality Control Board pursuant to the Porter-Cologne Water Quality Control Act and California Water Code Sections 13000-14920. The roadside ditch appears to have been excavated in or developed as an erosional feature in uplands, and is likely exempt from Corps jurisdiction as a Water of the U.S. (Appendix D). Mitigation is not warranted, but the City of Hayward may require the Project Sponsor to submit applications for authorization to the CDFW and RWQCB, and provide documentation that the work is authorized or that authorization by those agencies is not required.

Vegetation community impacts are detailed in Table 3. Driveway construction would result in the permanent loss of 0.07 acres of Purple Needlegrass Grassland and 0.05 acres of ruderal herbaceous vegetation due to conversion of grassland to a paved driveway to access the homesite and stabilize the eroding roadside ditch. Temporary impacts to 0.06 acres of Purple Needlegrass Grassland would result from remedial grading to correct slides and create the required width and grade for the driveway.

Table 3. Project Impacts on Vegetation Communities (excludes leach field construction impacts and riprap in roadside ditch.

Vegetation Type	Sensitive Natural Community	Impact Type	Area of Impact (acres)
Non-Native Grassland	No	Permanent	1.07
		<i>Temporary</i>	<i>0.71</i>
Coast Live Oak Woodland and Forest	Yes	Permanent	0.01
		<i>Temporary</i>	<i>0</i>
Purple Needlegrass Grassland	Yes	Permanent	0.07
		<i>Temporary</i>	<i>0.06</i>
Coyote Brush Scrub	No	Permanent	0.00
		<i>Temporary</i>	<i>0.003</i>
Willow Scrub	Yes	Permanent	0
		<i>Temporary</i>	<i>0</i>
Ruderal Herbaceous	No	Permanent	0.05
		<i>Temporary</i>	<i>0.02</i>

Homesite construction would require 0.01 acres of earthwork encroachment within the dripline of Coast Live Oak Woodland and Forest to construct a retaining wall grading, V-ditch and riprap for energy dissipators. This would constitute a permanent impact. No tree removal is required. Construction activities within the dripline of Coast Live Oak Woodland could damage individual trees, compact soils, and damage the root systems of coast live oak and other native trees, resulting in a decline in tree vigor.

Leach field construction impacts are not included in Table 3 because the actual location has not been finalized. However, depending on the selected location, leach field construction could increase temporary impacts to Non-native Grassland by up to 0.03 acres. Leach field construction impacts would be considered temporary because the trenching to install the drainage lines would require limited surface disturbance and pre-construction surface soils and topography would be restored following installation.

Installation of the overland stormwater drainage and sanitary sewer lines within Coast Live Oak Woodland and Forest would not rise to the level of either a permanent or temporary impact because no grading is required, and the lines would be manually anchored to the slope with hand tools.

Permanent and temporary impacts to Purple Needlegrass Grassland and permanent impacts to Coast Live Oak Woodland and Forest would be considered significant, but implementation of the mitigation measures described below would reduce or compensate for this impact to be less than significant.

Temporary impacts to Coyote Brush Scrub (0.003 acres) from brush pruning during installation of the overland storm drainpipe below the house, and temporary and permanent impacts to Non-native Grassland (1.78 acres) and Ruderal Herbaceous vegetation (0.07 acres) from road construction would not be potentially significant because these vegetation communities are not considered to be Sensitive Natural Communities. Furthermore, these vegetation communities are all abundant in the Study Area region and impacts represent a modest fraction of the area of each type within the Study Area. Temporarily disturbed areas are expected to rapidly re-establish vegetative cover after the completion of construction, due to post-construction erosion control, and implementation of Mitigation Measure 1.

With implementation of Mitigation Measures 1(a-c), the impact of the Proposed Project on Sensitive Natural Communities will be reduced to less than significant.

Mitigation Measure 1(a). The approximately 0.13 acres of combined permanent and temporary impacts to Purple Needlegrass Grassland will be mitigated by the application of the native plant seed mix detailed in Table 4 to the approximately 0.79 acres of temporarily disturbed Non-native Grassland, Purple Needlegrass Grassland and Ruderal Herbaceous vegetation in the fall after the completion of grading. Purple needlegrass as well as other native species are adapted to habitat conditions present on the Study Area and are expected to readily re-establish in the areas temporarily disturbed during construction. Purple needlegrass was observed on the Study Area growing in areas subject to past disturbance and competition from non-native grasses and forbs, and therefore purple needlegrass and other native grasses and forbs seeded on the Study Area are

anticipated to persist in perpetuity. Temporary impacts to up to 0.03 of Non-native Grassland, Coast Live Oak Woodland and Ruderal Herbaceous vegetation due to leach field construction would be mitigated by the application of the native plant seed mix in Table 4 following the restoration of surface soils and topography. Seeding in the fall is expected to allow sufficient time for herbaceous species to germinate, grow, and become established before the summer drought. Any straw or other material added to the ground should be certified weed free.

Table 4. Native Plant Seed Mix

Species	Annual or Perennial	Application Rate Pure Live Seed lbs/acre
<i>Stipa pulchra</i> Purple needlegrass	perennial	8.0
<i>Bromus carinatus</i> California brome	perennial	6.0
<i>Festuca microstachys</i> Small fescue	annual	1.5
<i>Eschscholzia californica</i> California poppy	annual/ perennial	1.0
<i>Amsinckia menziesii</i> Small-flowered fiddleneck	annual	1.0
<i>Sisyrinchium bellum</i> Blue-eyed grass	perennial	1.0
<i>Plantago erecta</i> California plantain	annual	2.0

Mitigation Measure 1(b). Vegetation removal and ground disturbance shall be limited to the minimum necessary to conduct the Project. When work is conducted in the vicinity of Sensitive Natural Communities, temporary fencing (orange construction fencing or similar materials) shall be installed around Sensitive Natural Communities to ensure no equipment, materials, or construction personnel stray from the work area and impact Sensitive Natural Communities beyond impacts already detailed. The fencing shall be removed after Project construction is complete. Erosion control measures and other Best Management Practices shall be implemented as necessary to ensure that no sediment, pollutants, or other materials from the Project work area reach Sensitive Natural Communities. Seed mixes used for erosion control, soil stabilization, or Project landscaping shall not contain any species listed on the California Invasive Plant Council (Cal-IPC) Inventory.

Mitigation Measure 1(c). The applicant shall retain the services of an International Society of Arboriculture-certified Arborist prior to the start of construction activities to develop a Tree Protection Plan that will be implemented during construction. The Tree Protection Plan shall include tree protection measures, including specification of a Tree Protection Zone (TPZ), TPZ fencing requirements, pruning recommendations and restrictions on earthwork within the TPZ. The fencing shall be removed after Project construction is complete.

7.4 Impacts to Special-status Wildlife

The assessment of potential impacts of the Proposed Project on special-status and sensitive wildlife species is detailed below. The assessment included consideration of both direct (i.e., construction related impacts) and indirect (e.g., those reasonably certain to occur at a later time and date) impacts. Impacts are described by species, followed by species-specific mitigation measures where needed. Where mitigation measures would be applicable and appropriate to more than one species, the appropriate measure is listed but the text is not duplicated.

Impact 2. Construction-related Impacts to Alameda Whipsnake Critical Habitat

Construction-related activities and vegetation removal described in Impact 1 will result in the permanent and temporary loss to Alameda whipsnake critical habitat comprising PCE's 1-2, shown in Table 5. The Project is anticipated to affect 1.92 acres of Alameda whipsnake critical habitat consisting of 0.773-acre of temporary effects (0.71-acre of non-native grassland, 0.06-acre of purple needlegrass grassland, and 0.003-acre of coyote brush scrub) and 1.15 acres of permanent effects (1.07 acres of non-native grassland, 0.07-acre of purple needlegrass grassland, and 0.01-acre of coast live oak woodland and forest). Leach field construction impacts are not included in Table 5, but could increase temporary effects to 0.03 acres of Alameda whipsnake critical habitat comprising PCE's 1 and 2, depending on the selected location. The fraction of a percent loss is not expected to appreciably diminish the value of the critical habitat for the Alameda whipsnake, or prevent critical habitat from sustaining its role in the conservation and recovery of the species. This will not interfere with the current capability of the critical habitat unit to satisfy essential requirements of the species. Any impact to designated critical habitat would be considered significant, but implementation of the mitigation measures described below would reduce or compensate for this impact to be less than significant.

Mitigation Measure 2(a). To offset permanent effects to Alameda whipsnake critical habitat, the applicant shall compensate for the permanent and temporary loss of Alameda whipsnake critical habitat at a ratio of 3:1 for permanent effects and 1.1:1 for temporary effects by permanently protecting 4.30 acres of habitat in perpetuity (Table 5). If the leach field is located in Non-native Grassland, an additional 0.033 acres of compensation would be required to offset temporary impacts.

Table 5: Impacts and Compensation for Project Effects to Alameda Whipsnake Critical Habitat (excludes leach field construction impacts)

Alameda Whipsnake Critical Habitat	Effects						Total Compensation (acres)
	Temporary (acres)			Permanent (acres)			
	Impact	Compensation ⁷		Impact	Compensation		
		Ratio	Need		Ratio	Need	
PCE 1	0.003	1.1:1	0.003	0.00	3:1	0.00	0.003
PCE 2	0.77	1.1:1	0.85	1.15	3:1	3.45	4.30
PCE 3	0.00	1.1:1	0.00	0.00	3:1	0.00	0.00
Total	0.773		0.853	1.15		3.45	4.30

The applicant shall seek habitat that comprises high quality breeding, foraging, sheltering, migration and/or dispersal habitat, or provides a functional linkage to areas of occupied habitat(s) to facilitate the (re)colonization from source populations. Compensation may consist of on-site or off-site habitat preservation, restoration and/or enhancement or a combination of on- and off-site habitat preservation, restoration, and/or enhancement. Coordination with USFWS/CDFW shall be conducted at the discretion of the applicant as necessary. Prior to site disturbance, the applicant shall have an Alameda whipsnake Habitat Mitigation Plan (HMP) prepared by a qualified biologist that specifies on-site habitat restoration and preservation, habitat management and habitat compensation; temporary and permanent impacts and compensation; performance criteria and monitoring measures to assess success; and long-term habitat protection through a deed restriction or conservation easement.

1. **On-Site Habitat Restoration and Preservation.** At a minimum, the applicant shall restore temporarily disturbed habitat(s) to original contours and baseline conditions. Credit for on-site restoration of areas subject to temporary disturbance shall be achieved once it is returned to and functions at baseline conditions or better consistent with performance criteria specified in the HMP. On-site habitat restoration for temporary impacts can be combined with preservation to fully mitigate impacts to Alameda whipsnake critical habitat if the aforementioned conditions are achieved.

Permanent impacts to Alameda whipsnake habitat shall be mitigated through preservation in perpetuity of a deed restriction on Alameda whipsnake compensation land that would preclude land use inconsistent with Alameda whipsnake habitat conservation. Habitat management of Alameda whipsnake compensation land shall be consistent with the performance criteria and long-term habitat management specified in the HMP.

Implemented as described above, on-site habitat restoration and preservation would fully mitigate temporary and permanent impacts to Alameda whipsnake critical habitat.

⁷ Compensation ratios of 3:1 for permanent impacts and 1.1:1 for temporary impacts are based on president set by the U.S. Fish and Wildlife Service to offset the effects to designated critical habitat and are informally considered the standard for mitigation.

2. **Conservation Bank Credits.** The applicant shall purchase conservation bank credits at a USFWS/CDFW-approved conservation bank whose service area encompasses the action area for the species listed above. Conservation bank credits shall be purchased and documentation provided to the USFWS/CDFW comprising the Agreement for Sale of Conservation Credits, Bill of Sale, Payment Receipt and Updated Credit Ledger within 30 calendar days prior to project ground-breaking.
3. **Off-Site Habitat Acquisition & In-perpetuity Preservation.** The applicant shall contribute toward the acquisition of habitat approved by the USFWS/CDFW⁸. Acquisition of land shall either be through a conservation easement or fee title. The conservation easement shall name the USFWS/CDFW as third-party beneficiaries or grantees, and shall be held by an entity qualified to hold conservation easements subject to USFWS/CDFW approval. The endowment to manage the land and monitor the conservation easement shall be based on the management plan or a PAR (or PAR-equivalent) analysis. The endowment shall be secured with a Funding Assurance Letter stating that sufficient funds to compensate for the effects to Alameda whipsnake critical habitat. The Funding Assurance Letter provides evidence that the applicant has allocated sufficient funding to implement the proposed compensation/mitigation, monitoring and reporting requirements including habitat conservation credits or land acquisition costs, costs of managing the compensation/mitigation lands, and an endowment. The Funding Assurance Letter shall be provided to the USFWS/CDFW for approval prior to project ground-breaking. The endowment shall be held by a USFWS/CDFW -approved entity in an amount agreed to by the USFWS/CDFW. A management plan shall be developed prior to or concurrent to the acquisition of land and shall include at a minimum: a description of existing habitats and proposed habitat creation, restoration and/or enhancement; success criteria for habitat modification; monitoring criteria for Alameda whipsnakes; an integrated pest management plan; and adaptive management strategies. The applicant shall submit the management plan to the USFWS/CDFW for approval.

With implementation of Mitigation Measures 2(a), the impact of the Proposed Project on Alameda whipsnake critical habitat will be reduced to less than significant.

Impact 3. Construction-related Impacts to Special-status Wildlife

Construction-related activities and vegetation removal described in Impact 1 may result in the permanent and temporary loss of special-status wildlife habitat including food and host plants for bumble bees and Bridges' coast shoulderband; nesting and overwintering habitat for white-tailed kites, Cooper's hawks, sharp-shinned hawks, ferruginous hawks, and California horned larks; and roosting habitat for hoary bats, pallid bats, and Townsend's western big-eared bats. The project may result in direct impacts to individual animals (e.g., mortality, injury or harassment, roost/nest disturbance or abandonment, disrupt breeding, foraging, migration, dispersal and/or normal movement activities within a species home range, and/or alter normal behaviors) and/or indirect impacts (e.g., roost/nest/habitat avoidance, modified foraging behaviors, noise or light

⁸ If no federal nexus exists, the applicant may pursue Section 10 consultation with the USFWS through the low-effect HCP process. Although coordination with USFWS/CDFW is not mandatory, both agencies track compensation for Alameda whipsnake impacts and any conservation bank credits purchased, habitat restoration, or habitat acquisition and in-perpetuity preservation should be submitted to USFWS/CDFW for tracking.

pollution, etc.). This would be considered significant, but implementation of Mitigation Measure 4(a-k) described below would reduce or compensate for this impact to be less than significant.

Impact 4. Construction-related Impacts to Alameda Whipsnakes

Construction-related activities and vegetation removal described in Impact 1 may result in direct impacts to individual whipsnakes (e.g., mortality, injury or harassment, flushing from refugia, avoidance of on-site habitat, disruption to breeding, foraging, migration, dispersal or daily movement within its home range, and/or alterations to normal behaviors) and/or indirect impacts (e.g., seasonal habitat avoidance, altered travel pathways, truncation or home ranges, noise or light pollution, etc.). This would be considered significant, but implementation of the mitigation measures described below would reduce or compensate for this impact to be less than significant.

Mitigation Measure 4(a). Construction actions resulting in ground disturbance including clearing and grubbing, grading, trenching, cut and fill, etc. shall be scheduled to occur between April 15 and October 15 during the Alameda whipsnake active season to minimize effects on Alameda whipsnakes and their habitat. Framing, building, paving, etc. after all ground disturbing activities occur would not constitute “ground disturbance” and could occur outside of this seasonal work window.

Mitigation Measure 4(b). Since a federal nexus does not exist, the applicant shall secure the services of a qualified biologist that has a minimum of five (5) years of academic training and professional experience in biological sciences and related resource management activities with a minimum of two (2) years’ experience with Alameda whipsnakes including surveys, habitat assessments, CDFW/USFWS permit applications, and/or mitigation and management planning.

Mitigation Measure 4(c). Prior to the start of construction, a biologist experienced in biology and ecology of Alameda whipsnakes shall conduct an educational training program for all construction personnel including subcontractors. The training shall include, at a minimum, a description of the Alameda whipsnake and its habitat; sensitive habitats within the study area; an explanation of the status and protection under state and federal laws; the avoidance and minimization measures to be implemented to reduce the potential of take; communication and work stoppage protocols in case a listed species is observed within the study area; and an explanation of the environmentally sensitive areas and wildlife exclusion fencing and the importance of maintaining these structures. A fact sheet conveying this information shall be prepared and distributed to all construction personnel. Upon completion of the program, personnel shall sign a form stating that they attended the program and understand all the avoidance and minimization measures and implications of the governing environmental regulations.

Mitigation Measure 4(d). Prior to the start of construction, environmentally sensitive areas (ESAs)—defined as areas containing sensitive habitats adjacent to or within construction work areas where physical disturbance is not allowed— shall be clearly delineated using high-visibility orange safety fencing; on a case-by-case basis, one fence can serve as both wildlife exclusion fencing and ESA fencing (see below). Construction work areas include the active construction site and all vehicle parking and staging areas. The qualified biologist shall work with the applicant and contractor to determine where ESA fencing will be installed. The ESA

fencing shall remain in place throughout the duration of the Project, while construction activities are ongoing, and be regularly inspected and fully maintained at all times.

Mitigation Measure 4(e). Prior to the start of construction, WEF shall be installed along the Project footprint in all areas where Alameda whipsnakes could enter the construction work area. A WEF Plan shall be prepared detailing the location, fencing and installation specifications, monitoring, and repair criteria. Vegetation shall be cleared at least 3 feet from the non-Project side of the WEF and kept clear for the duration of the Project. Jump-outs or one-way exists shall be incorporated in the WEF design to allow Alameda whipsnakes to exit if present within the active construction site. On a case-by-case basis, one fence can serve as both wildlife exclusion fencing and ESA fencing. The WEF shall remain in place throughout the duration of the Project and be regularly inspected and fully maintained. Repairs to the WEF shall be made the same day of discovery to the extent feasible. Upon Project completion the WEF shall be completely removed, the area cleaned of debris and trash, and returned to natural conditions.

Mitigation Measure 4(f). To prevent Alameda whipsnakes from becoming entangled or trapped in erosion control materials, plastic mono-filament netting (i.e., erosion control matting) or similar material shall not be used within the Project footprint. This includes products that use photodegradable or biodegradable synthetic netting, which can take several months to decompose. Acceptable materials include tackified hydroseeding compounds and natural fibers such as burlap, jute, or twine with a wide aperture mesh.

Mitigation Measure 4(g). Immediately prior to the initiation of any vegetation clearing, grubbing, grading, cut and fill, or other ground-disturbing activities, the qualified biologist shall conduct a clearance survey for Alameda whipsnakes. The qualified biologist shall conduct clearance surveys at the beginning of each day and regularly throughout the workday when the aforementioned activities are occurring that may result in take of Alameda whipsnakes.

Mitigation Measure 4(h). The qualified biologist shall be present on site to monitor for Alameda whipsnakes and on-site compliance with mitigation measures outlined herein. The designated monitor and qualified biologist shall have the authority to halt construction if an Alameda whipsnake is observed within or near the work area. Once all ground-disturbing activities are complete, biological monitoring shall cease and a monthly compliance visit shall be conducted to ensure the project is compliant with all mitigation measures.

Mitigation Measure 4(i). If an Alameda whipsnake is observed onsite, all work within 50 feet of the individual shall cease immediately. If the qualified biologist is not on site, the applicant or on-site supervisor shall immediately notify the qualified biologist. Alameda whipsnakes shall not be handled without authorization from the USFWS/CDFW and shall be allowed to exit the work area on their own. Based on the professional judgment of the qualified biologist, if Project activities can be conducted without injuring or harassing the animal, it may be left at the location of discovery and monitored by the biologist while work continues. If construction activities pose a risk to the animal, work shall not proceed until the animal has left the area on its own. All Project personnel shall be notified, and at no time shall work occur within 50 feet of the Alameda whipsnake(s) without a qualified biologist present. The qualified biologist shall be present during all construction activities where Alameda whipsnakes could occur.

Mitigation Measure 4(j). To prevent inadvertent entrapment of animals during construction, all excavated, steep-walled holes or trenches more than 1-foot deep shall be covered with plywood or similar materials at the close of each working day or provided with one or more escape ramps constructed of earth fill or wooden planks. The qualified biologist shall inspect all holes and trenches at the beginning of each workday and before such holes or trenches are filled. All staged materials, equipment, and vehicles shall be inspected by the biologist prior to moving.

Mitigation Measure 4(k). The following construction site management practices shall be implemented to avoid or minimize effects on Alameda whipsnakes and their habitat:

1. A speed limit of 15 miles per hour (mph) in the Project footprint in unpaved areas shall be enforced to reduce dust and excessive soil disturbance.
2. Construction access, staging, storage, and parking areas, shall be located outside of any designated ESA or in areas environmentally cleared by the contractor. Access routes and the number and size of staging and work areas shall be limited to the minimum necessary to construct the proposed Project. Routes and boundaries of roadwork shall be clearly marked prior to initiating construction or grading.
3. All food and food-related trash items shall be enclosed in sealed trash containers daily and properly disposed of off-site.
4. No pets from Project personnel shall be allowed anywhere in the Project area during construction.
5. No firearms shall be allowed on the Project site except for those carried by authorized security personnel, or local, State or Federal law enforcement officials.
6. A Spill Response Plan shall be prepared. Hazardous materials such as fuels, oils, solvents, etc. shall be stored in sealable containers in a designated location that is at least 50 feet from hydrologic features.
7. All equipment will be properly maintained and free of leaks. Servicing of vehicles and construction equipment including fueling, cleaning, and maintenance shall occur at least 50 feet from any hydrologic features unless it is an existing gas station.

With implementation of Mitigation Measures 4(a-k), the impact of the Proposed Project on Alameda whipsnakes will be reduced to less than significant.

Impact 5. Construction-related Impacts to California red-legged frogs

Construction-related activities and vegetation removal described in Impact 1 may result in direct impacts to individual California red-legged frogs (e.g., mortality, injury or harassment, flushing from refugia, avoidance of on-site habitat, disruption to foraging, migration, dispersal or daily movement within its home range, and/or alterations to normal behaviors) and/or indirect impacts (e.g., seasonal habitat avoidance, altered travel pathways, truncation or home ranges, noise or light pollution, etc.). This would be considered significant, but implementation of the mitigation measures described below would reduce or compensate for this impact to be less than significant.

Mitigation Measure 5(a). Implement Mitigation Measures 4(a-h,j-k) with the intended purpose of protecting California red-legged frogs.

Mitigation Measure 5(b). No ground-disturbing activities (clearing and grubbing, grading, trenching, cut and fill, etc.) shall occur during or within 24 hours following a rain event exceeding 0.2-inch as measured by the NOAA National Weather Service for the Livermore Municipal Airport, CA (KLVK) base station.

Mitigation Measure 5(c). If a California red-legged frog(s) is encountered in the active construction site, work activities within 50 feet of the individual(s) shall cease immediately and the applicant and qualified biologist shall be notified. Based on the professional judgment of the qualified biologist, if project activities can be conducted without harming or injuring the California red-legged frog(s), it may be left at the location of discovery and monitored by the Service-approved biologist. All project personnel shall be notified of the finding and at no time shall work occur within 50 feet of the frog(s) without a qualified biologist present. If it is determined by the qualified biologist that relocating the California red-legged frog(s) is necessary, the following steps shall be followed:

1. Prior to handling and relocation the qualified biologist with an applicable USFWS 10(A)(1)(a) recovery permit for California red-legged frogs shall take precautions to prevent introduction of amphibian diseases in accordance with the *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog* (Service 2005). Disinfecting equipment and clothing is especially important when biologists are coming to the action area to handle amphibians after working in other aquatic habitats.
2. California red-legged frogs shall be captured by hand, dipnet or other USFWS-approved methodology, transported by hand, dipnet or temporary holding container, and released as soon as practicable the same day of capture. Handling of California red-legged frogs shall be minimized to the maximum extent practicable. Holding/transporting containers and dipnets shall be thoroughly cleaned, disinfected and rinsed with freshwater prior to use within the study area.
3. California red-legged frogs shall be relocated to nearby suitable habitat outside of the work area and released in a safe area at a minimal distance from where it was discovered based on the qualified biologist's professional judgement. If California red-legged frogs are relocated, the USFWS/CDFW shall be notified within 24 hours of relocation.

With implementation of Mitigation Measures 5(a-c), the impact of the Proposed Project on California red-legged frogs will be reduced to less than significant.

Impact 6. Construction-related Impacts to Crotch bumble bees, western bumble bees, and obscure bumble bees

Construction-related activities and vegetation removal described in Impact 1 may result in direct impacts to individual Crotch bumble bees, western bumble bees, and obscure bumble bees (e.g., mortality, injury or loss of food plants – buckwheat (*Eriogonum nudum* var. *auriculatum*), California poppy (*Eschscholzia californica*), chaparral clarkia (*Clarkia affinis*), coyote brush (*Baccharis pilularis* subsp. *consanguinea*), miniature lupine (*Lupinus bicolor*), narrow leaf clover (*Trifolium angustifolium*), rose clover (*Trifolium hirtum*), silver lupine (*Lupinus albifrons* var. *albifrons*), and subterranean clover (*Trifolium subterraneum*)) and/or indirect impacts (e.g., seasonal loss of habitat, noise or light pollution, etc.). The aforementioned food plants easily repopulate areas and removal of these host plants combined with the abundance of similar host

plants on neighboring parcels will not appreciably diminish the overall habitat value of the property. However, temporary impacts to these species would be considered significant. Implementation of the mitigation measures described below would reduce or compensate for this impact to be less than significant.

Mitigation Measure 6(a). Implement Mitigation Measures 1(a-b) and 4(c-d,k) with the intended purpose of protecting special-status bumble bees.

Mitigation Measure 6(b). Minimize the loss of suitable habitat and food plants by limiting the area earthwork to be consistent with the areas shown in Appendix A.

With implementation of Mitigation Measures 6(a-b), the impact of the Proposed Project on Crotch bumble bees, western bumble bees, and obscure bumble bees will be reduced to less than significant.

Impact 7. Construction-related Impacts to Bridges' coast range shoulderband snail

Construction-related activities and vegetation removal described in Impact 1 may result in direct impacts to individual Bridges' coast range shoulderband snails (e.g., mortality, injury or loss of host plants – thistles (*Cirsium* spp.) and star thistle (*Centaurea* spp.)) and/or indirect impacts (e.g., temporary loss of habitat, noise or light pollution, etc.). The aforementioned host plants easily repopulate areas and removal of these host plants combined with the abundance of similar host plants on neighboring parcels will not appreciably diminish the overall habitat value of the property. However, temporary impacts to these species would be considered significant. Implementation of the mitigation measures described below would reduce or compensate for this impact to be less than significant.

Mitigation Measure 7(a). Implement Mitigation Measures 1(a-b) and 4(c-d,k) with the intended purpose of protecting Bridges' coast range shoulderband snails.

Mitigation Measure 7(b). Minimize the loss of suitable habitat and food plants by limiting the area earthwork to be consistent with the areas shown in Appendix A.

Mitigation Measure 7(c). Prior to the start of surface-disturbing activities, a qualified biologist should conduct a survey to locate individual snails. If any snails are found in the Project footprint, they should be collected and relocated to suitable areas outside the Project footprint and if possible, placed on similar vegetation from which they were collected.

With implementation of Mitigation Measures 7(a-c), the impact of the Proposed Project on Bridges' coast range shoulderband snail will be reduced to less than significant.

Impact 8. Construction-related Impacts to white-tailed kite, Cooper's hawk, sharp-shinned hawk, ferruginous hawk, California horned lark, and nesting migratory birds

The project would not result in the loss of known nests or nest trees. Construction-related activities and vegetation removal described in Impact 1 may result in direct impacts to individual white-tailed kites, Cooper's hawks, sharp-shinned hawks, ferruginous hawks, California horned larks, and nesting migratory birds (e.g., nest disturbance or abandonment during incubation,

nestling or fledging stages, roost abandonment, harassment, or temporary avoidance of nesting, roosting or foraging habitat) and/or indirect impacts (e.g., modified foraging patterns or territories, noise or light pollution, winter roost abandonment, etc.). This would be considered significant, but implementation of the mitigation measures described below would reduce or compensate for this impact to be less than significant.

Mitigation Measure 8(a). Implement Mitigation Measures 1(b,c) and 4(d,k) with the intended purpose of protecting white-tailed kites, Cooper’s hawks, sharp-shinned hawks, ferruginous hawks, and California horned larks.

Mitigation Measure 8(b). Tree removal, pruning, or grubbing activities should be conducted in the fall during the non-breeding season (i.e., between September 1 and January 31), if possible, to avoid impacts to nesting migratory birds.

Mitigation Measure 8(c). If Project construction begins during the breeding season (February 1 to August 31), preconstruction nesting bird surveys should be conducted within the Project footprint and a 50-foot buffer for migratory birds and a 300-foot buffer for raptors, by a qualified biologist no more than 2 weeks prior to equipment or material staging, pruning/grubbing, or surface-disturbing activities. If no active nests are found, no further mitigation is necessary.

Mitigation Measure 8(d). If active nests (i.e., nests with eggs or young birds present) are found, non-disturbance buffers should be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the nesting pair’s tolerance to disturbance, and the type/duration of potential disturbance. The non-disturbance zone may be further reduced if a qualified biologist is present to educate workers about the sensitivity of working in proximity to active nests and be on site to monitor the nest during work adjacent to the buffer to determine if Project activities are causing nest disturbance. The qualified biologist should conduct regular monitoring visits to document nest phenology and potential for disturbance during the different nest stages. If buffers are established and it is determined that Project activities are resulting in nest disturbance, work should cease immediately and the CDFW and the USFWS Migratory Bird Regional Permit Office should be contacted for further guidance.

With implementation of Mitigation Measures 8(a-d), the impact of the Proposed Project on white-tailed kites, Cooper’s hawks, sharp-shinned hawks, ferruginous hawks, California horned larks, and nesting migratory birds will be reduced to less than significant.

Impact 9. Construction-related Impacts to hoary bat, pallid bat, and Townsend’s western big-eared bat

Construction-related activities and vegetation removal described in Impact 1 may result in direct impacts to individual hoary bats, pallid bats, and Townsend’s western big-eared bats (e.g., mortality, injury or loss of roosting habitat including rock outcrops and mature trees with hollows, bole cavities and exfoliating bark in the coast live oak woodland and forest vegetation community) and/or indirect impacts (e.g., temporary loss of habitat, roost site avoidance, shift in foraging behaviors, noise or light pollution, etc.). This would be considered significant, but implementation of the mitigation measures described below would reduce or compensate for this impact to be less than significant.

Mitigation Measure 9(a). Implement Mitigation Measures 1(a-b) and 4(c-d,k) with the intended purpose of protecting hoary bats, pallid bats, and Townsend's western big-eared bats.

Mitigation Measure 9(b). Preconstruction surveys shall be conducted by a qualified biologist for all areas that provide suitable bat roosting habitat including snags, rotten stumps, decadent trees with broken limbs, exfoliating bark, bole cavities or hollows, dense foliage, rock outcrops, etc. Sensitive habitat areas and roost sites shall be avoided to the maximum extent practicable. If no suitable roost sites are identified, no further minimization measures are necessary.

Mitigation Measure 9(c). If potential roost sites (trees, snags, rock outcrops, etc.) are to be removed or trimmed, limbs smaller than 3 inches in diameter shall be cut and the tree left overnight to allow any bats that may be using the tree/snag time locate another roost. A qualified biologist shall be present during the trimming or removal of trees, snags, stumps, or rock outcrops.

Mitigation Measure 9(d). Prior to tree trimming, a qualified biologist shall conduct a preconstruction clearance survey to identify if any bats are roosting within the structures. If bats are roosting within the structure bat exclusion measures shall be implemented that allow bats to freely leave the structure, but prevents them from returning.

Mitigation Measure 9(e). If roosting bats are detected in the work area, work should not proceed if the qualified biologist determines if they will be directly impacted by Project activities. A non-disturbance buffer zone of 50 feet should be established until guidance from CDFW is obtained.

With implementation of Mitigation Measures 9(a-e), the impact of the Proposed Project on hoary bats, pallid bats, and Townsend's western big-eared bats will be reduced to less than significant.

7.6 Interference with Movement of Native Fish, Wildlife, Established Wildlife Corridors

The Project would not interfere or impede in the movement of other native wildlife. The study area is located in a matrix of undeveloped contiguous habitat comprising oak woodland, riparian, grassland, and scrub habitat with scattered rural residents. The scope and footprint of the Project are small compared to the surrounding available habitat. The Project does not appreciably increase the footprint of developed habitat or modify existing wildlife movement corridors. Species can freely move between habitat types and avoid the study area during the construction phase. Temporarily disturbed habitat as part of the Project is expected to recover within one calendar year to pre-Project conditions.

The Project would not result in significant impacts to the movement of native fish, wildlife or established wildlife corridors. No mitigation is required.

7.7 Conflict with Local Policies or Ordinances

The Proposed Project was designed to be consistent with the City of Hayward General Plan Natural Resource Policies described in Section 4.9. The Project minimizes impacts to sensitive natural communities and would implement mitigation measures to ensure that impacts to special-status species would be avoided during construction. Through careful design, construction of the Proposed Project would protect habitat for rare and endangered wildlife species and would not impede the mobility of terrestrial wildlife.

Based on consideration of the relevant local goals and policies from the Natural Resources Element of the City of Hayward General Plan (City of Hayward, 2014), the Proposed Project does not conflict with local policies or ordinances related to biological resources. No mitigation is required.

7.8 Conflict with Local, Regional or Statewide Habitat Conservation Plans

No local, regional or statewide habitat conservation plans have been adopted for the area in which the Proposed Project is located; therefore, there is no conflict. No mitigation is required.

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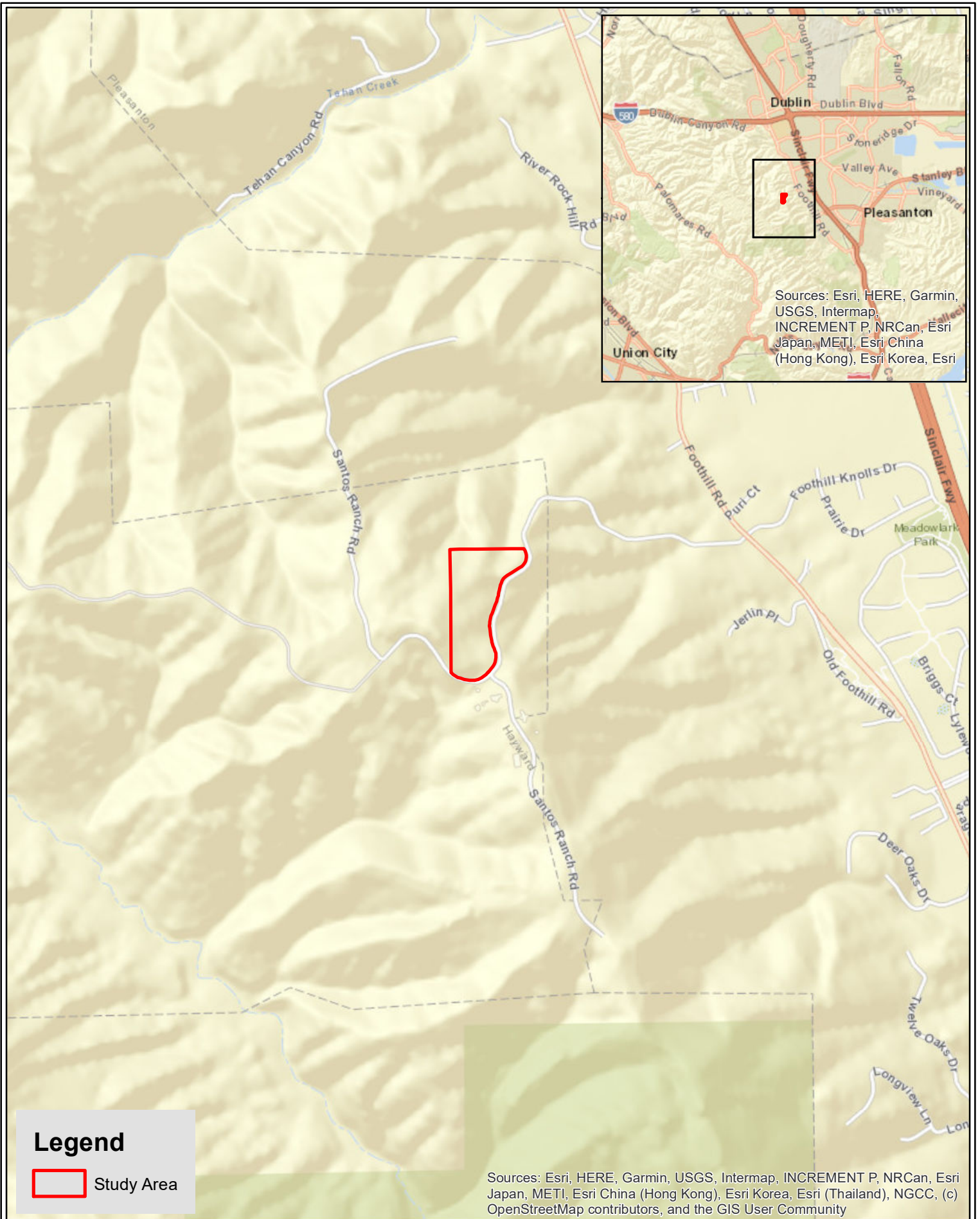


Figure 1. Study area locality map.

Mapscale: 1:16,000

0 500 1,000 2,000
 Feet



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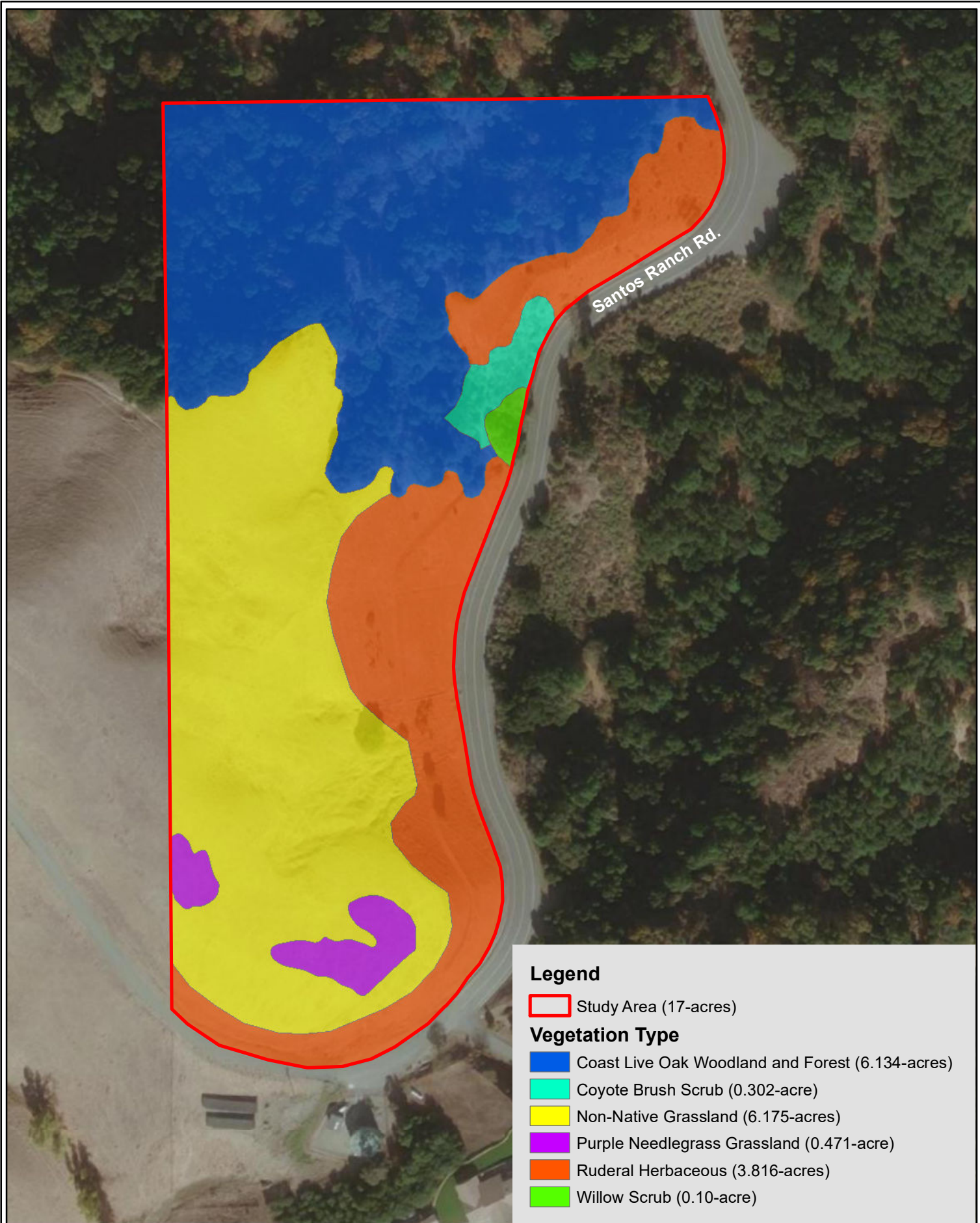
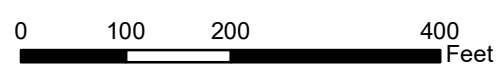


Figure 2. Vegetation on the Santos Ranch Road study area, Hayward.

Image Date: 11/4/19; Map Date: 6/3/22

Mapscale: 1:2,200



37.660563, -121.928148



Legend

- Study Area (17-acres)
- Delineation Sample Points
- Culvert

Potential Jurisdictional Wetlands

- Willow Scrub (0.062-acre)

Potential Jurisdictional Other Waters

- Ephemeral Drainage (1,128 linear feet)

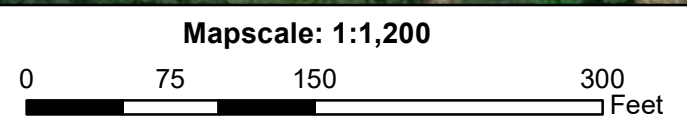
Roadside Ditches

- Earthen (465 linear feet)
- Concrete (Located Outside Study Area)

37.664965, -121.924743

Source: E

Figure 3. Drainages & Delineated Features on the Study Area, Hayward, Alameda Co.



T. Mahony, Coast Range Biological, LLC
 PO Box 1238, Santa Cruz, CA 95061
 (831) 426-6226; coastrange@sbcglobal.net
 Image Date: 5/26/21; Map Date: 9/22/22

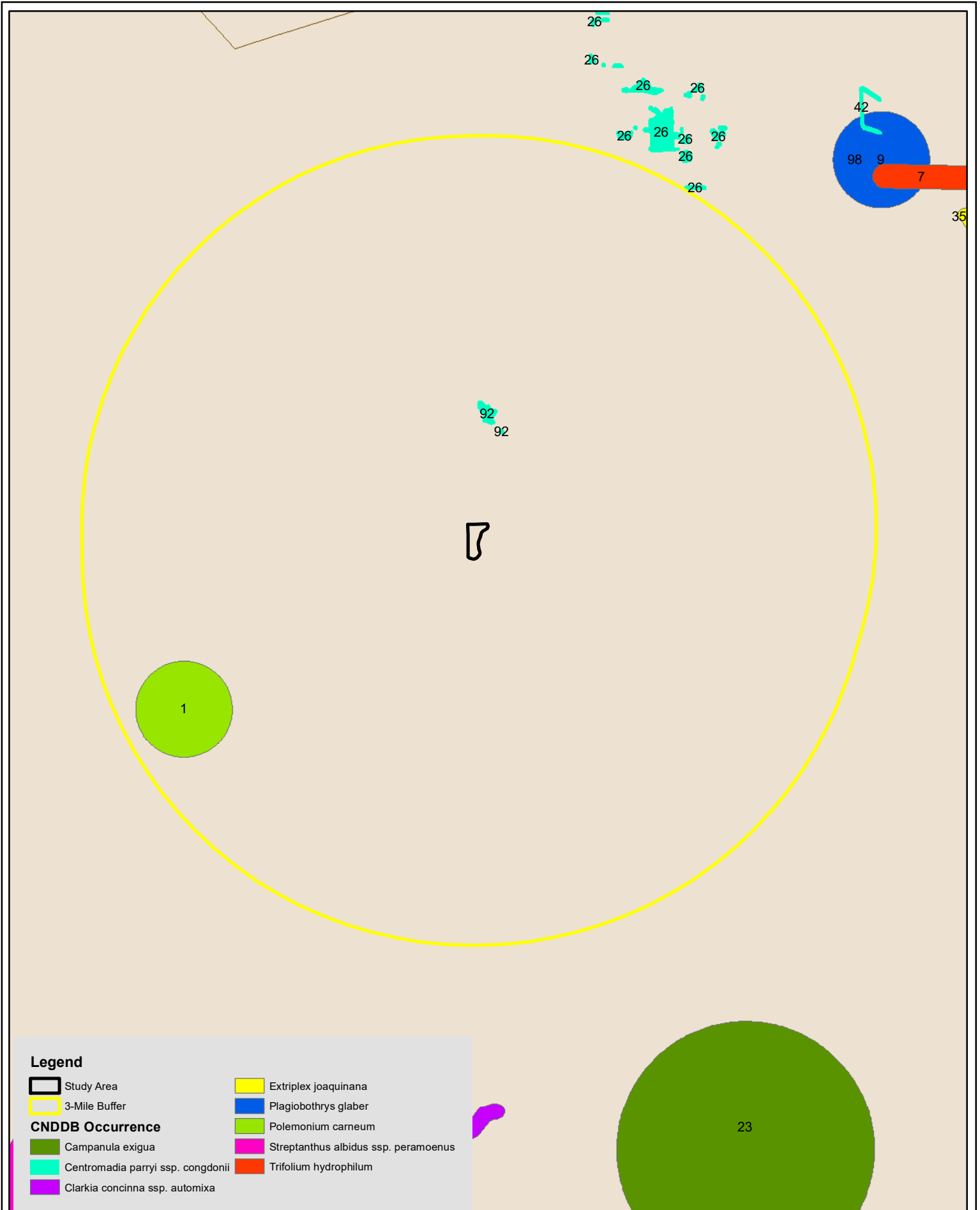
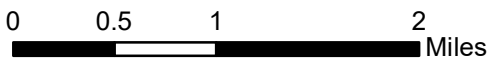


Figure 4 CNDDB map of special-status plant occurrences in the study area region.

Data Source: CNDDB (CDFW 2022).

Mapscale: 1:60,000



Mosaic Associates
 3817 Painted Pony Road
 Richmond, CA 94803
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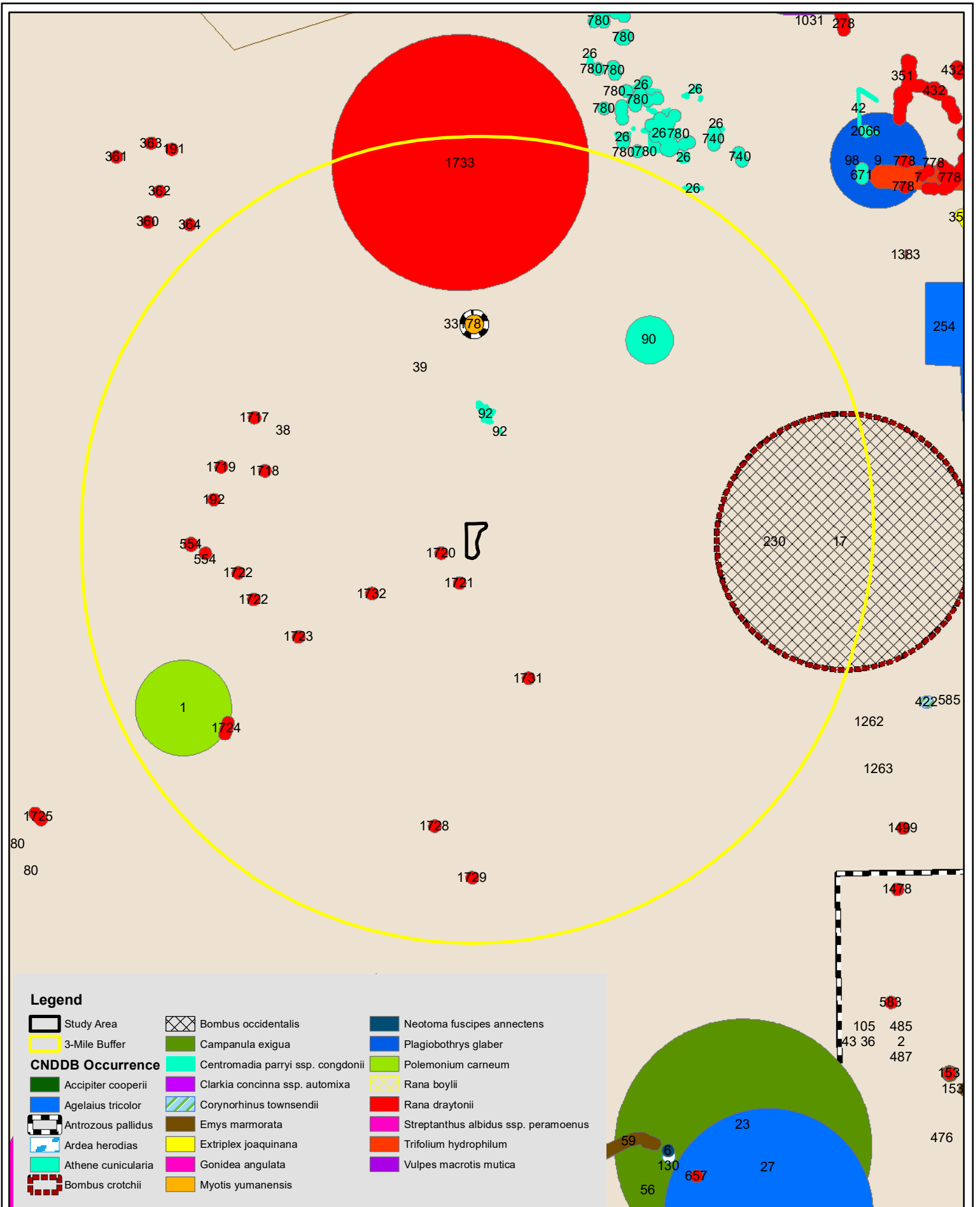


Figure 5 CNDDDB map of special-status animal occurrences in the study area region.

Mapscale: 1:60,000
 0 0.5 1 2 Miles



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 Richmond, CA 94803
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Data Source: CNDDDB (CDFW 2022).