Appendix A

Biological Resources Constraints Analysis

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

510 834 4455 OFFICE

info@rinconconsultants.com
www.rinconconsultants.com

November 4, 2021
Project No: 21-11882

Emily Foley, AICP
Associate Planner, Planning & Development Services
City of Palo Alto
250 Hamilton Ave. 5th Floor
Palo Alto, California 94301
Via email: Emily.Foley@CityofPaloAlto.org

Subject: Biological Resources Constraints Analysis for the 575 Los Trancos Road Project, Palo Alto, California

Dear Ms. Foley:

Rincon Consultants, Inc. (Rincon) has prepared this Biological Resources Constraints Analysis (BRCA) for the City of Palo Alto (City) of potential biological resources constraints to development at the approximately 5-acre property located at 575 Los Trancos Road in Palo Alto. (APN 182-46-012; Figure 1; Attachment 1). This report documents the existing conditions of the proposed development area within this parcel (hereafter known as the "project site") and identifies sensitive biological resources that do or could occur on the site. Based on the evaluation of sensitive biological resources, the report presents an assessment of the potential significant impacts to biological resources under the California Environmental Quality Act (CEQA) and identifies potential impacts that may require permitting under the California Endangered Species Act (CESA) and/or federal Endangered Species Act (FESA) and/or the Clean Water Act (CWA) and state regulations regarding waters of the State. The report also provides recommendations to address any potential constraints associated with such resources.

Project Location and Description

The project site is an approximately five-acre property located at 575 Los Trancos Road in the City of Palo Alto, Santa Clara County, California. The site is approximately 2.5 miles southwest of U.S. Highway 280. The parcel lies within the *Mindego Hill, California* U.S. Geological Survey (USGS) quadrangle and within the San Francisquito Creek Watershed (Hydrologic Unit Code Number 180500030404). Los Trancos Creek, classified as a riverine habitat, runs west to east along the western border of the project site.

The proposed project would involve construction of a new 7,266 square foot (sf) single-family residence with a new 1,000 sf accessory dwelling unit and associated improvements including a swimming pool and landscaped trees and shrubs. The project site is within the Open Space zoning district. Land use surrounding the project site consists of low-density residential and undeveloped areas. The project site is bordered on the eastern side by Los Trancos Road. The project site consists of an undeveloped and vacant lot, dominated by oak woodland, riparian woodland, and non-native grasses (Figure 2; Attachment 1). The non-native annual grasses are regularly mowed. The project site is surrounded by a residence to the north, Los Trancos Creek to the west, and undeveloped lands to the south and east. See Attachment 2 for representative photographs of the project site.

Methodology

This BRCA includes a review of relevant literature followed by a reconnaissance-level field survey and aquatic resources delineation. The purpose of this BRCA is to document the biological conditions of the project site and to provide information on the potential constrains to development related to sensitive biological resources.

Literature Review

Information on biological resources was compiled from a variety of publicly available sources including:

- Aerial photographs of the project site and vicinity;
- California Department of Fish and Wildlife (CDFW) *California Natural Diversity Database* (CNDDB; CDFW 2021a);
- California Native Plant Society (CNPS) *Inventory of Rare and Endangered Plants* (CNPS 2021);
- CDFW *Biogeographic Information and Observation System* (BIOS; CDFW 2021b);
- CDFW *Special Animals List* (CDFW 2021c);
- CDFW *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2021d);
- U.S. Fish and Wildlife Service (USFWS) *Information for Planning and Consultation System* (IPaC; USFWS 2021a);
- USFWS *Critical Habitat Portal* (USFWS 2021b);
- USFWS *National Wetlands Inventory* (NWI; USFWS 2021c);
- USGS *National Hydrography Dataset* (NHD; USGS 2021);
- NOAA Fisheries California Species Tool (National Oceanic and Atmospheric Administration [NOAA] 2021)
- Essential California Habitat Connectivity Project data (available as GIS layers in BIOS [CDFW 2021b]).

In addition, the *Technical Memorandum Biotic Study* (2014) prepared by Wildlife Research Associates (WRA) for an adjacent site was reviewed. The sources outlined above provide general information and coarse-grained data on biological resources to support a preliminary desktop assessment of the biological conditions of the project site. This level of evaluation allows for an assessment of potential constraints to development from sensitive biological resources and is sufficient to support CEQA environmental review. The potential presence of special-status species is based on the literature review which is intended to assess general habitat suitability within the project site only.

Field Reconnaissance Survey

Rincon Biologist Christian Knowlton conducted a field reconnaissance survey on October 5, 2021. Mr. Knowlton surveyed the entire project site on foot and recorded all biological resources encountered on site. Weather conditions at the time of the survey were clear (0% cloud cover) with winds at approximately zero to three miles per hour (mph) and an air temperature of 61 degrees Fahrenheit (F). The survey was conducted to document the existing site conditions, map vegetation communities, and to evaluate the potential for presence of sensitive biological resources, including sensitive plant and animal species, sensitive plant communities, and habitat for nesting birds protected by federal and state laws. During the survey, an inventory of all plant and animal species observed was compiled.

All plant species encountered were noted and identified to the lowest taxonomic level possible given the condition of the materials during the site visit. Plant species nomenclature and taxonomy followed Baldwin et al. (2012) as updated by The Jepson Online Interchange (University of California, Berkeley 2020). (Jepson Flora Project 2021). The vegetation classification system used for this analysis is based on *A Manual of California Vegetation, Second Edition* (MCV2; Sawyer et al. 2009), but has been modified as needed to accurately describe the existing habitats observed on site. Vegetation communities were mapped onto aerial imagery depicting the project site and then later digitized using ArcGIS® (ESRI 2021).

Wildlife identification and nomenclature followed standard reference texts, including Sibley Birds West: Field Guide to Birds of Western North America (Sibley 2016). The habitat requirements for each regionally occurring special-status species were assessed and compared to the type and quality of the habitats observed within the project site during the field survey. Several sensitive species were eliminated from consideration as having potential to occur on site due to lack of suitable habitat, lack of suitable soils/substrate, and/or knowledge of regional distribution.

Existing Conditions

Topography and Soils

Topography of the site is relatively flat, with elevation approximately 535 feet (163 meters) above mean sea level. A review of the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service's online Web Soil Survey (2019) revealed one soil type mapped within the site: Flaskan sandy clay loam, 5 to 9 percent slopes. The Flaskan series consists of very deep, well drained soils that formed in alluvium from mixed rock sources. (USDA 2021b)

Vegetation Communities and General Land Cover Types

Three terrestrial vegetation communities or other land cover types were observed within the project site. A map approximating the types and acreages of the various vegetation communities and land-cover types that occur within the study area is shown in Attachment 1 (Figure 2). Habitat characterizations were based on the classification systems presented in MCV2 (Sawyer et al. 2009); but have been modified slightly to reflect the existing site conditions most accurately. See Attachment 3 for a complete list of plant species observed within the project site.

Coast Live Oak Woodland

Coast live oak woodland (*Quercus agrifolia* Forest and Woodland Alliance) is typically found on canyon bottoms, slopes, and flats with deep sandy or loamy soils throughout the inner and outer Coast Ranges, Transverse Ranges, and southern coast, usually below 1,200 meters. Coast live oak woodlands are widely distributed throughout the state from northern Mendocino County to San Diego County. This community is dominated by coast live oak (*Q. agrifolia*), often including California bay (*Umbellularia californica*) and Pacific madrone (*Arbutus menziesii*). Stands vary from open or continuous to savanna-like. Dense conditions support sparse understory vegetation including California blackberry (*Rubus ursinus*), poison oak, and snowberry (*Symphoricarpos spp.*), while more open stands have a grassy understory (Sawyer et al. 2009; Holland 1986).

Coast live oak woodland is found throughout the project site. Canopy cover is continuous to scattered, with a moderately dense understory of herbs and shrubs. Other observed tree species commonly

associated with coast live oak woodland include California bay and California buckeye (*Aesculus californica*). The shrub layer of the coast live oak woodland is typically poorly developed and the herbaceous layer is mostly continuous with adjacent grasslands. Shrubs in the project site include poison oak, coyote brush, and California blackberry.

Non-native annual grassland

Non-native annual grassland is typically comprised of annual grasses and forbs introduced during and since the Spanish colonial period. This vegetation community most closely resembles the *Avena* spp. – *Bromus* spp. Herbaceous Semi-Natural Alliance described by Sawyer et al. (2009). Non-native annual grassland is generally found in open areas in valleys and foothills throughout coastal and interior California. It typically occurs on soils consisting of fine-textured loams or clays that are somewhat poorly drained. Non-native annual grasses and weedy annual and perennial forbs, primarily of Mediterranean origin, dominate this vegetation type, probably as a result of human disturbance. Scattered native grass and wildflower species, representing remnants of the original vegetation may also be common (Sawyer et al. 2009).

On the project site, this vegetation community primarily occurs in the interior of the site and is surrounded by coast live oak woodland. The majority of the non-native annual grassland within the project site had been previously mowed. Characteristic non-native annual grasses observed include wild oat (*Avena fatua*), Italian rye (*Festuca perennis*), and foxtail barley (*Hordeum murinum*). Many ruderal herbs were also present, including plantain (*Plantago* spp.).

Riparian

Riparian habitat is found along Los Trancos Creek within the project site. This habitat type is similar to coast live oak woodland described above, with the distinction that it occurs along the banks of the creek and is thus riparian habitat. The MCV has moved similar riparian woodlands into the California sycamore – coast live oak riparian woodlands (*Platanus racemosa – Quercus agrifolia* Woodland) alliance, but this vegetation community does not include California sycamore, and the vegetation community present best corresponds to the Central Coast live oak riparian forest as described in Holland (1986). This plant community would be classified as upland where trees are rooted outside of the top of banks at the drainages and as palustrine forested wetland where trees are rooted along the drainage banks, following Cowardin et al. (1979).

General Wildlife

Wildlife activity was low during the reconnaissance survey. Eastern gray squirrel (*Sciurus carolinensis*), Nuttall's woodpecker (*Dryobates nuttallii*), and Steller's jay (*Cyanocitta stelleri*) were observed at the project site during the site survey. See Attachment 4 for a complete list of wildlife species observed within the project site.

Biological Constraints

Special-Status Species

For the purpose of this report, special status species are defined as those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS or NMFS under

the FESA; those listed or candidates for listing as rare, threatened, or endangered by the CDFW under CESA; animals designated as "Species of Special Concern" (SSC) by the CDFW or "Fully Protected" under the CFGC; and plants with a California Rare Plant Rank (CRPR) of 1B, 2, 3, or 4.

The project site may contain suitable habitat for special-status species. Based on the agency databases and literature review, as well as the results of the reconnaissance survey of the project site, Rincon evaluated 85 special-status species (40 special-status plant species and 45 special-status animal species) documented within the *Mindego Hill*, *California* USGS 7.5-minute topographic quadrangle and the surrounding eight quadrangles (*Woodside*, *Palo Alto*, *Mountain View*, *La Honda*, *Cupertino*, *Franklin Point*, *Big Basin*, and *Castle Rock Ridge*). Each of these 85 species was evaluated for its potential to occur in the project site (see Attachment 5). The majority of special-status species are not expected to occur based on the absence of suitable habitat and/or the project site being outside of the geographic range of the species.

Special-Status Plants

As noted above, based on the database and literature review of records, 40 special-status plant species are known to or have the potential to occur within the regional vicinity of the project site (Attachment 4). Potential to occur within the project site was based primarily on the presence of suitable habitat, determined during the site reconnaissance survey, and the proximity to CNDDB/CNPS documented occurrences. No special-status plant species were detected within the project site during the reconnaissance survey; however, this survey was conducted outside of the seasonal bloom period for many special-status plant species and the project site had been recently mowed. As such, it is possible that these special-status plant species occur at the project site but were simply undetected due to the timing of the reconnaissance survey and problematic vegetation conditions due to regular vegetation maintenance.

Of the 40 special-status plant species, one has a moderate potential to occur on the project site. Woodland woollythreads (*Monolopia gracilens*), CRPR 1B.2, can be found in a variety of habitat types, including some that occur on the project site, such as woodlands and grassy sites in openings. Blooming period for this species is March through July. Multiple occurrences of woodland woollythreads have been recorded within five miles of the project area, including the most recent occurrence from 2018 approximately one mile southwest of the project site. Protections are afforded for this and other special-status plants through CEQA, regardless of their listing status under the FESA, CESA, or the Native Plant Protection Act (NPPA).

Special-Status Animals

Forty-five special-status animal species were reported to occur within the regional vicinity, based on the database and literature review. Habitats within the project site have moderate to high potential to support nine special-status wildlife species: steelhead - central California coast (CCC) distinct population segment (steelhead) (*Oncorhynchus mykiss irideus*), Santa Cruz black salamander (*Aneides niger*), California giant salamander (*Dicamptodon ensatus*), California red-legged frog (*Rana draytonii*), western pond turtle (*Emys marmorata),* San Francisco gartersnake (*Thamnophis sirtalis tetrataenia*) pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*). Each of these species is discussed in more detail below.

Steelhead

The project site is located within the known range of the federally listed as threatened steelhead. Steelhead that occur in this geographic area are considered part of the CCC DPS. This DPS was listed by NMFS in 2006 and includes steelhead populations in streams from the upper Russian River in Mendocino County to Aptos Creek in southern Santa Cruz County (NMFS 2016).

Steelhead are capable of surviving in a wide range of temperature conditions within freshwater and estuarine environments but prefer temperatures less than 57 degrees Fahrenheit. Eggs tend to experience mortality at temperatures greater than 55 degrees Fahrenheit, and steelhead appear to have difficulty obtaining sufficient oxygen from water temperatures greater than 70 degrees Fahrenheit. Elevated summer water temperatures have been identified as a problem (CDFW 1996). Steelhead do best where dissolved oxygen concentrations are at least seven parts per million. In streams, deep low-velocity pools are important wintering habitats. Spawning habitat consists of gravel substrates that are free of excessive silt.

Los Trancos Creek runs along the property boundary on the western side. It is immediately adjacent to the project site and is critical habitat for steelhead. A 20-foot creek setback is marked on the proposed project plan, indicating that the creek is outside the limits of disturbance. Implementation of the proposed project may result in direct or indirect impacts to steelhead at all life stages. The results and conclusions presented herein represent our best professional judgement but do not represent determinations of the NMFS and CDFW as these agencies have ultimate jurisdiction over the steelhead through administration and enforcement of the FESA and CESA, respectively.

Santa Cruz black salamander

Santa Cruz black salamander (*Aneides flavipunctatus niger*) is a state species of special concern. This species is typically found in mixed deciduous woodlands, coniferous forests, and coastal grasslands in Santa Cruz, Santa Clara, and San Mateo counties. They primarily reside in moist habitats with wet soils, rotten logs, and surface debris for cover adjacent to ravines and water courses below 3,500 feet in elevation (Zeiner 1990, CDFW 2021a, Nafis 2020).

Los Trancos Creek and the riparian corridor within the project site provides suitable breeding and foraging habitat for Santa Cruz black salamander. The grassland and oak woodland within the project site may also be utilized by dispersing salamanders. Implementation of the proposed project may result in direct or indirect impacts to individuals within the project site.

California giant salamander

California giant salamander (*Dicamptodon ensatus*) is a state species of special concern that occurs in damp coastal forests and riparian woodland habitats up to 6,500 feet in elevation. Terrestrial adults are commonly found in damp litter, in burrows, or under fallen logs, and aquatic adults typically occur near cold, clear, permanent or semi-permanent water sources with rocky substrates. Breeding occurs from March to May and eggs are laid in slow moving waters and springs and under streambanks (Zeiner 1990, CDFW 2021a, Nafis 2020).

Los Trancos Creek and the riparian corridor within the project site provides suitable breeding and foraging habitat for California giant salamander. The grassland and oak woodland within the project site may also provide habitat for burrowing animals which may provide refugia for California giant

salamander. Implementation of the proposed project may result in direct or indirect impacts to individuals within the project site.

California red-legged frog

The California red-legged frog is federally listed as threatened and a state species of special concern throughout its range. The historic range of California red-legged frog extended along the coast from the vicinity of Point Reyes National Seashore, Marin County, and inland from the vicinity of Redding, Shasta County, southward to northwestern Baja California, Mexico. California red-legged frog inhabits quiet pools of streams, marshes, and ponds. All life history stages are most likely to be encountered in and around breeding sites, which include coastal lagoons, marshes, springs, permanent and semi-permanent natural ponds, and ponded and backwater portions of streams, as well as artificial impoundments such as stock ponds, irrigation ponds, and siltation ponds. Eggs are typically deposited in permanent pools, attached to emergent vegetation (USFWS 2011).

Los Trancos Creek and the riparian corridor within the project site may provide suitable breeding habitat, in slow moving pools, and foraging habitat for California red-legged frog. The closest documented breeding habitat is approximately 2.6 miles north of the project site within San Francisquito Creek. The grassland and oak woodland within the project site may also provide habitat for burrowing animals which may provide refugia for California red-legged frog. Implementation of the proposed project may result in direct or indirect impacts to individuals within the project site.

Western pond turtle

Western pond turtle (*Actinemys marmorata* [=*Emys marmorata*]) is a state species of special concern. This species is a semi-aquatic turtle that occurs in ponds, marshes, rivers, streams and irrigation ditches that typically support aquatic vegetation. It requires downed logs, rocks, mats of vegetation, or exposed banks for basking. Western pond turtle lay their eggs in nests dug along the banks of streams or other uplands in sandy, friable soils. Western pond turtles, especially those that reside near creeks, are known to overwinter in upland habitats. Upland movements can be quite extensive, and individuals have been recorded nesting or overwintering hundreds of meters from aquatic habitats. The typical nesting season is usually from April through August; however, variation exists depending upon geographic location.

Los Trancos creek may provide suitable foraging habitat for the western pond turtle. The oak woodland and annual grassland may also provide suitable breeding and foraging habitat. Western pond turtles have been documented approximately 2.9 miles north of the project site within San Francisquito Creek. Implementation of the proposed project may result in direct or indirect impacts to individuals within the project site.

San Francisco garter snake

San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) is federally and state listed as endangered. The historical distribution of the San Francisco garter snake included wetland areas on the San Francisco peninsula from the San Francisco County line south along the eastern and western foothills of the Santa Cruz Mountains to at least Upper Crystal Springs Reservoir and Año Nuevo Point in San Mateo County, and Waddell Creek in Santa Cruz County. The San Francisco garter snake occurs in a number of aquatic and terrestrial habitats throughout their range.

San Francisco garter snake has been documented within the San Francisquito Creek watershed, which Los Trancos Creek is a part of. Suitable aquatic and terrestrial habitats are found along Los Trancos

creek. Implementation of the proposed project may result in direct or indirect impacts to individuals within the project site.

Special-Status Bat Species

Pallid bat, and Townsend's big-eared bat are CDFW SSC. Pallid bats are found in grasslands, shrublands, woodlands, and forests, and may roost in trees or buildings. Townsend's big-eared bat are found in a wide variety of habitats and may roost in abandoned buildings or large trees. Bats prefer open areas or open areas under a tree canopy for foraging, and often roost near water. Several large and mature oak trees contain dense canopy cover within the project site may provide suitable roosting habitat for these special-status bat species. Implementation of the proposed project may result in direct or indirect effects to roosting special-status bat species, should they be present within the project site and/or immediate surrounding vicinity.

San Francisco dusky-footed woodrat

The San Francisco woodrat is one of eleven described subspecies of the dusky-footed woodrat (Hooper 1938) and is recognized by the CDFW as a species of special concern. Dusky-footed woodrats are well known for their large terrestrial stick houses/nests, some of which can last for twenty or more years (Linsdale and Tevis 1951). Middens/nests can be placed on the ground against or straddling a log or exposed roots of a standing tree and are often located in dense brush. Middens/nests are also placed in the crotches and cavities of trees and in hollow logs. Sometimes arboreal nests are constructed, this behavior seems to be more common in habitat with evergreen trees such as live oak. The body coloring is brown/grey with white/grey underside and white/dusky coloring on feet. The woodrats have a hairy brown tail, usually with a lighter underside, and large ears (Burt and Gossenheider 1980). The San Francisco dusky-footed woodrat can be found throughout the San Francisco Bay area in grasslands, scrub and wooded areas (Hall 1981).

Several San Francisco dusky-footed woodrat nests were observed during the reconnaissance survey. The oak woodland provides suitable breeding and foraging habitat throughout the project site. Implementation of the proposed project may result in direct or indirect impacts to individuals within the project site.

Nesting Birds

The California Fish and Game Code (CFGC) Section 3503 and the federal Migratory Bird Treaty Act (MBTA) protect native bird species and their nests. The blue oak woodland habitat within and adjacent to the project site provides suitable nesting habitat for a variety of bird species. No active or inactive bird nests were observed within the project site during the reconnaissance-level field surveys. However, species of birds that typically occur in the region, such as red-shoulder hawk (*Buteo lineatus*), Steller's jay, and Anna's hummingbird (*Calypte anna*), may nest in the project site or surrounding area. Implementation of the proposed project may result in direct or indirect effects to nesting bird species, should they be present within the project site and/or immediate surrounding vicinity.

Special-Status Vegetation Communities and Critical Habitat

Sensitive Natural Communities

Plant communities are also considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. The CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in CNDDB. CNDDB vegetation alliances are ranked 1 through 5 based on NatureServe's (2010) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Some alliances with the rank of 4 and 5 have also been included in the 2020 sensitive natural communities list under CDFW's revised ranking methodology (CDFW 2020). Three sensitive natural communities are known to occur within the nine-quadrangle search radius, none of which are present within the project site:

- Northern Coastal Salt Marsh
- Serpentine Bunch Grass
- Valley Oak Woodland

Critical Habitat

Critical habitat for steelhead is present in Los Trancos Creek, shown in Appendix A (Figure 2), both within and immediately adjacent to the project site. (NOAA 2021). Designated critical habitat is also located in several of the rivers surrounding the project site within five miles for coho Salmon (Central California Coast ESU; *Oncorhynchus kisutch* pop. 4). However, the project site does not overlap with these rivers and no drainages onsite are connected to the rivers where critical habitat is designated. Designated critical habitat for California red-legged frog and Bay checkerspot butterfly (*Euphydryas editha bayensis*) is located within five miles of the project area (USFWS 2021b); however, the project does not overlap with either of these designated critical habitats.

Oak Trees

Coast live oak trees and valley oak trees with a diameter at breast height of greater than 11.5 inches occur within project site. Pursuant to Section 8.10, *Tree Preservation and Management Regulations*, of the Palo Alto Municipal Code, these on-site oak trees would qualify as protected trees. Under Section 8.10.020, all protected trees that are planned for removal must be approved by the director of planning and development services, on the basis of a tree report prepared by a certified arborist. The proposed project may result in trimming and or disturbance close in proximity to several of the trees and may include work within oak tree driplines. As such, implementation of the proposed project may result in direct or indirect impacts to protected oak trees within the project site.

Jurisdictional Waters and Wetlands

Los Trancos Creek is an intermittent stream within and immediately adjacent to the project site and is potentially under the jurisdiction of the U.S. Army Corps of Engineers (USACE), CDFW, and/or Regional Water Quality Control Board (RWQCB). Riparian habitat (coast live oak woodland) occurs adjacent to the creek. Coast live oak woodland is not a CDFW sensitive natural community, but riparian habitat is considered to be a jurisdictional wetland by CDFW. Project plans appear to avoid impacts to Los Trancos

Creek, however the proposed project may result in indirect impacts to the creek and direct or indirect impacts to riparian habitat if project activities occur within the dripline of the riparian canopy.

Discussion and Recommendations

The project site contains: potentially suitable habitat for one special-status plant species, nine special-status wildlife species and nesting bird species; native oak trees; and potentially jurisdictional areas. If the project will be subject to environmental review under CEQA and there will be impacts to special-status species that are not listed as threatened or endangered under CESA and/or FESA, it may be considered significant and compensatory mitigation and/or specific avoidance and minimization measures may be required before and during construction of the project.

Special-Status Plant Species

The project site contains suitable habitat for one special-status plant species, as described above. It was not observed within the project site during the reconnaissance survey; however, the reconnaissance survey was conducted outside the bloom period for the species. Following are recommendations to address constraints due to the potential presence of special-status plants within the project site:

- A qualified biologist should conduct a protocol level botanical survey, including a site visit during the blooming period in March through July, and to ensure impacts to special-status plant species are avoided, minimized, and/or mitigated.
- If the CRPR 1 rank plant is found, a qualified biologist shall determine if the project will result in a significant impact and if so, prepare compensatory mitigation measures.

Special-Status Wildlife Species

The project site contains suitable habitat for nine special-status wildlife species. Los Trancos Creek is designated critical habitat for steelhead, and the non-native annual grassland in the woodland openings may provide suitable habitat for several other species. The large and mature oak trees on the project site provide potentially suitable habitat for nesting birds as well as special-status bat species. None of these species were observed onsite during the reconnaissance-level field surveys and no focused or protocol-level species surveys were conducted. Following are recommendations to address constraints due to the potential for occurrence of special-status wildlife and the presence of their habitats within the project site:

Steelhead:

Best management practices (BMPs) should be implemented during all construction activities that take place in or adjacent to Los Trancos Creek to prevent erosion and sedimentation into the creek and to prevent the spill of contaminants in or around the creek. Construction should occur between June and December, outside of steelhead migration season in the region.

The following BMPs should be implemented on-site during construction to prevent any indirect impacts to waters and wetlands:

- Vehicles and equipment should be checked at least daily for leaks and maintained in good working order. Spill kits should be available on-site at all times and a spill response plan should be developed and implemented.

- Sediment and erosion control measures (e.g., sand or gravel bags, hay bales, check dams) should be implemented and maintained throughout the project site to prevent the entry of sediment and/or pollutants into any waterways or jurisdictional areas. No monofilament plastic will be used for erosion control.

California Giant Salamander and Santa Cruz Black Salamander

Immediately prior to initial ground disturbance and vegetation removal, a qualified biologist shall conduct a preconstruction clearance survey of the site for special status amphibians. If California giant salamander and/or Santa Cruz black salamander are observed on site, they shall be relocated to suitable habitat in the immediate vicinity by the qualified biologist. The following additional measures shall be implemented to reduce potential impacts:

- Vegetation disturbance shall be the minimum necessary to achieve the goals of the project.
- All trash shall be removed from the site daily and disposed of properly to avoid attracting potential predators to the site.
- No pets shall be permitted on site during project activities.
- All vehicles shall be in good working condition and free of leaks. All leaks shall be contained and cleaned up immediately to reduce the potential of soil/vegetation contamination.
- All hole and trenches shall be covered at the end of the day or ramped to avoid entrapment.

California red-legged frog:

A qualified biologist shall conduct a pre-construction survey within 14 days prior to initiation of construction activities. The USFWS will be notified should California red-legged frog be observed within the project site. The following avoidance and mitigation measures should be implemented to avoid impacts to California red-legged frog:

- Construction crew shall be taught during the WEAP training to check beneath the staging equipment each morning prior to commencement of daily construction activities. Should California red-legged frog occur within the staging areas, construction activities shall be halted until the California red-legged frog vacates the project site on its own or until a biologist with a USFWS Recovery Permit for California red-legged frog relocates the California red-legged frog.

- Prior to ground disturbance a temporary wildlife exclusion barrier shall be installed along the limits of disturbance. A qualified biologist will inspect the area prior to barrier installation. The barrier will be designed to prevent California red-legged frog from entering the project area, and will remain in place until all development activities have been completed. This barrier will be inspected daily by a qualified biologist and maintained and repaired as necessary to ensure that it is functional and is not a hazard to California red-legged frogs or San Francisco garter snakes on the outer side of the barrier.

- A qualified biologist shall be present during all grading and initial ground disturbing activities. Should California red-legged frog be observed within the project site, the USFWS shall be notified and construction shall be halted until either the California red-legged frog exits the site on its own or until a biologist with a USFWS Recovery Permit for California red-legged frog relocates the California red-legged frog.

- No work should occur during a rain event (over 0.25”). If a rain event occurs, a qualified biologist should inspect the site again prior to resuming work.

Western pond turtle

A qualified biologist shall conduct pre-construction clearance surveys for western pond turtle within 48 hours prior to the start of construction (including staging and mobilization) in areas of suitable habitat. The biologist shall flag limits of disturbance for each construction phase. Areas of special biological concern within or adjacent to the limits of disturbance should have highly visible orange construction fencing installed by a contractor between said area and the limits of disturbance. If western pond turtles are observed they shall be allowed to leave the site on their own.

San Francisco garter snake

A qualified biologist shall conduct a focused pre-construction survey within 24 hours of the initiation of project activities. If San Francisco garter snake is found, the USFWS shall be notified immediately to determine the correct course of action and the proposed project shall not begin until approved by the USFWS.

- Construction personnel will participate in a worker environmental awareness program training. The training will cover the need to check beneath and around equipment each morning prior to commencement of daily construction activities. Should San Francisco garter snake occur within the project areas, construction activities shall be halted until the San Francisco garter snake vacates the project site on its own or until a biologist with a USFWS Recovery Permit for San Francisco garter snake relocates the snake.
- Vegetation will be cut to 6 inches in height or when the ground is visible, using hand tools (including string trimmers or chainsaw for brush). Once the ground is visible, a visual survey for San Francisco garter snake will be conducted by the biologist prior to additional ground disturbance. If San Francisco garter snake is found, USFWS will be notified immediate to determine the correct course of action.
- Prior to ground disturbance a temporary wildlife exclusion barrier shall be installed along the limits of disturbance. A qualified biologist will inspect the area prior to barrier installation. The barrier will be designed to prevent San Francisco garter snake from entering the project area and will remain in place until all development activities have been completed. This barrier will be inspected daily and maintained and repaired as necessary to ensure that it is functional and is not a hazard to California red-legged frogs or San Francisco garter snakes on the outer side of the barrier.
- Prior to conducting non-native plant removal or treatments (e.g., spraying with herbicide, cutting, pulling, digging out), the permittee shall make every reasonable attempt to ensure that SFGS are not hidden within the plant or residual plant matter to be treated.

Special-Status Bat Species:

There is suitable roosting habitat for special-status bats present in the large oak trees throughout the project site. Disturbance of maternity roosts from construction activities, resulting in roost destruction or abandonment, would be a potentially significant impact to special-status bat species and would be violations of CFGC. The following are recommendations and possible constraints due to special-status bat species within the project site:

- Prior to tree removal, a qualified biologist should conduct a focused survey of all trees to be removed or impacted by construction activities to determine whether active roosts of special-status bats are present on site. If tree removal is planned for the fall, the survey should be conducted in September to ensure tree removal would have adequate time to occur during seasonal periods of bat activity, as described below. If tree removal is planned for the spring, then the survey should be conducted during the earliest possible time in March, to allow for suitable conditions for both the detection of bats and subsequent tree removal. Trees containing suitable potential bat roost habitat features should be clearly marked or identified.
- If day roosts are found to be potentially present, the biologist should prepare a site-specific roosting bat protection plan to be implemented by the contractor following the City of Palo Alto's approval. The plan should incorporate the following guidance as appropriate:
  - When possible, removal of trees identified as suitable roosting habitat should be conducted during seasonal periods of bat activity, including the following:
    1. Between September 1 and about October 15, or before evening temperatures fall below 45 degrees Fahrenheit and/or more than 0.5 inch of rainfall within 24 hours occurs.
    2. Between March 1 and April 15, or after evening temperatures rise above 45 degrees Fahrenheit and/or no more than 0.5 inch of rainfall within 24 hours occurs.
  - If a tree must be removed during the breeding season and is identified as potentially containing a colonial maternity roost, then a qualified biologist should conduct acoustic emergence surveys or implement other appropriate methods to further evaluate if the roost is an active maternity roost. Under the biologist's guidance, the contractor should implement measures similar to or better than the following:
    1. If it is determined that the roost is not an active maternity roost, then the roost may be removed in accordance with the other requirements of this recommendation.
    2. If it is found that an active maternity roost of a colonial roosting species is present, the roost should not be disturbed during the breeding season (April 15 to August 31).
  - Potential colonial hibernation roosts should only be removed during seasonal periods of bat activity. Potential non-colonial roosts that cannot be avoided should be removed on warm days in late morning to afternoon when any bats present are likely to be warm and able to fly. Appropriate methods should be used to minimize the potential harm to bats during tree removal. Such methods may include using a two-step tree removal process. This method is conducted over two consecutive days and works by creating noise and vibration by cutting non-habitat branches and limbs from habitat trees using chainsaws only (no excavators or other heavy machinery) on day one. The noise and vibration disturbance, together with the visible alteration of the tree, is very effective in causing bats that emerge nightly to feed to not return to the roost that night. The remainder of the tree is removed on day two.

San Francisco dusky-footed woodrat

A qualified biologist should conduct a pre-construction survey for woodrats no more than 14 days prior to construction. Nests within 50 feet of project activity that would not be directly impacted by project activity should be demarcated with a 10-foot avoidance buffer and left intact. If a nest(s) that cannot be avoided are found during the pre-construction survey, an approved biologist should dismantle the nest and relocate it to suitable habitat outside the work area no more than 50 feet away with the goal of ensuring the individuals are allowed to leave the work area(s) unharmed before on site activities begin. Nest relocation should occur within 48 hours of construction activities to ensure that nests are not

reestablished. With the implementation of mitigation (worker training program and relocation of active nests), impacts to San Francisco dusky-footed woodrat would be reduced to less than significant.

Nesting Birds:

There is suitable nesting habitat for nesting birds throughout the project site. If construction activities are scheduled to occur during the avian nesting season (typically February 1 to September 15), then typical avoidance and minimization measures to prevent take of bird nests, eggs or nestlings under CFGC and the MBTA could pose constraints on the project. The following are recommendations and possible constraints due to special-status birds and nesting birds within the project site:

- A general pre-construction nesting bird survey should be conducted by a qualified biologist, within 14 days prior to the initiation of construction activities. If construction is stopped for more than 14 days during the nesting season, a pre-construction survey should be conducted prior to the re-start of construction activities. Surveys should include the disturbance area plus a 200-foot buffer for passerine species, and a 500-foot buffer for raptors.
- If active nests are located, an appropriate avoidance buffer should be established within which no work activity would be allowed which would impact these nests. The avoidance buffer would be established by the qualified biologist on a case-by-case basis based on the species and site conditions. Larger buffers may be required depending upon the status of the nest and the construction activities occurring in the vicinity of the nest. The buffer area(s) should be closed to all construction personnel and equipment until juveniles have fledged and/or the nest is inactive. A qualified biologist should confirm that breeding/nesting is complete, and the nest is no longer active prior to removal of the buffer. If work within a buffer area cannot be avoided, then a qualified biologist should be present to monitor all project activities that occur within the buffer. The biological monitor should evaluate the nesting avian species for signs of disturbance and should have the ability to stop work.

Protected Trees

Pursuant to Chapter 8.10 of the Palo Alto Municipal Code the on-site coast live oak and valley oak trees would qualify as protected trees. Depending on the extent of disturbance, the proposed project may result in trimming and or disturbance close in proximity to several of the trees within the project site. Therefore, Section 8.10.050, *Tree Preservation and Management Regulations* would require an arborist report, conducted by a qualified arborist, tree mitigation may be required in accordance with the City of Palo Alto Tree Technical Manual. Additionally, should one or more protected trees be planned for removal, a tree protection and replacement plan may be required. This plan would include but is not limited to the following protective measures for trees:

- Prior to initiating any construction activity on a construction project, including demolition or grading, temporary protective fencing should be installed at each site tree.
    1. Fencing should be located at the Tree Protection Zone (TPZ) illustrated on the Improvement Plans.
    2. Fencing should serve as a barrier to prevent encroachment of any type by construction activities, equipment, materials storage, or personnel.
- The Tree Protection Zone (TPZ) is illustrated on the Improvement Plans and represents the area around each tree, or group of trees, which must be protected at all times with tree protection fencing.

1. No encroachment into the TPZ is allowed at any time without approval from the project arborist.
2. Any unauthorized entry into the TPZ is a violation of the Tree Protection Ordinance and shall be subject to enforcement through civil, criminal or administrative remedies, including applicable penalties.

- Contractors and subcontractors should direct all equipment and personnel to remain outside the fenced area at all times until project is complete and should instruct personnel and sub-contractors as to the purpose and importance of fencing and preservation.
- No grade changes should be made within the protective barriers without prior approval by the Planning Director.
- No attachments or wires other than those of a protective or non-damaging nature should be attached to a protected tree.
- Excavation or landscape preparation within the protective barriers should be limited to the use of hand tools and small handheld power tools and should not be of a depth that could cause root damage.
- When the existing grade around a protected tree is to be raised the project and/or City arborist should provide written directions on which method(s) may be used to drain liquids away from the trunk.
- When the existing grade around a protected tree is to be lowered the project and/or City arborist should provide written directions on which method(s) may be used (terracing, retaining wall, etc.) to allow the dripline to be left at the original grade.
- No equipment, solvents, paint, asphalt, or debris of any kind should be placed, stored, or allowed within the protective barrier.

Potentially Jurisdictional Areas

Los Trancos Creek is within and adjacent to the project area. It is a tributary to San Francisquito Creek, which flows into San Francisco Bay, a Traditional Navigable Water, thus it is potentially under the jurisdiction of USACE, CDFW, and the Regional Water Quality Control Board (RWQCB). In addition, riparian habitat on the project site would be considered jurisdictional by CDFW and RWQCB. Therefore, the following avoidance and minimization measures are recommended:

- If the project will avoid impacts to the riparian area (shown on Figure 2), we recommend installing high visibility orange construction fence between the jurisdictional areas and the construction activities, including a 20-foot buffer setback, to avoid all potential impacts to jurisdictional areas.
- If the project will impact the riparian areas, a formal delineation report and map should be prepared. If wetland areas cannot be avoided, regulatory permits from USACE, CDFW, and RWQCB would be required prior to construction.
- Vehicles and equipment should be checked at least daily for leaks and maintained in good working order. Spill kits should be available on-site at all times and a spill response plan should be developed and implemented.
- Sediment and erosion control measures (e.g., straw wattles, silt fence, check dams) should be implemented and maintained throughout the project site to prevent the entry of sediment and/or pollutants into any waterways or jurisdictional areas. No monofilament plastic will be used for erosion control.

Conclusion

As noted above, this report is intended to identify sensitive biological resources and potential occurrence of special-status species that represent potential constraints to development of the 575 Los Trancos Road project. This report provides analysis sufficient to support CEQA, though further analysis may be required for compliance with FESA, or CESA, and/or the CFGC. Thank you for the opportunity to support your environmental analysis needs for this important project. Please contact us if you have any questions.

Sincerely,
Rincon Consultants, Inc.

Christian Knowlton
Biologist

Sherri Miller
Principal

Attachments

Attachment 1 Figures
Attachment 2 Representative Site Photographs
Attachment 3 Plant Species List Observed
Attachment 4 Wildlife Species List Observed
Attachment 5 Special-Status Species Evaluation Tables

References

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. The Jepson Manual: Vascular Plants of California, second edition. University of California Press, Berkeley.

Burt, W.H., and R.P. Grossenheider. 1980. A Field Guide to the Mammals of North America North of Mexico. The Peterson Field Guide Series.

California Department of Fish and Wildlife (CDFW). 2020. California Sensitive Natural Communities Arranged Alphabetically by Life Form (PDF). Available from https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities (accessed October 2021).

____. 2021a. California Natural Diversity Database (CNDDB), Rarefind 5 (online). Commercial Version. (accessed October 2021).

____. 2021b. Biogeographic Information and Observation System (BIOS). http://bios.dfg.ca.gov (accessed October 2021).

____. 2021c. Special Animals List. July. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline (accessed October 2021).

____. 2021d. Special Vascular Plants, Bryophytes, and Lichens List. July. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline (accessed October 2021).

____. 1996. Steelhead Restoration and Management Plan. Department of Fish and Game, Sacramento, California. February. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=3490&inline.

California Native Plant Society (CNPS). 2021. Inventory of Rare and Endangered Plants of California (online edition, v9-01 0.0). https://www.rareplants.cnps.org (accessed October 2021).

Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. Washington, DC: U.S. Department of the Interior, Fish and Wildlife Service. https://www.fws.gov/wetlands/documents/classwet/index.html#contents (accessed October 2021).

Hall, E. R. 1981. *The Mammals of North America*, Vol I, 2nd edition. John Wiley & Sons, New York. 690+92 pp.

Holland, Robert F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Wildlife, Nongame Heritage Program. 156 pgs.

Hooper, E. T. 1938. Geographical variation in woodrats of the species *Neotoma fuscipes*. University of California Publications in Zoology 42:213-245.

Jepson Flora Project (eds.). 2021. Jepson eFlora, https://ucjeps.berkeley.edu/eflora/

Leidy, R.A., G.S. Becker, B.N. Harvey (2005). "Historical distribution and current status of steelhead/rainbow trout (*Oncorhynchus mykiss*) in streams of the San Francisco Estuary, California." Center for Ecosystem Management and Restoration, Oakland, California. Retrieved October 2021.

Linsdale, J.M and L. P. Tevis. 1951. *The Dusky-footed Wood Rat: A Record of Observations Made on the Hastings Natural History Reservation*. University of California Press. Berkeley and Los Angeles. 664 pp.

Nafis, G. 2000-2020 California Herps - A Guide to the Amphibians and Reptiles of California. Available at: http://www.californiaherps.com/ (accessed October 2021).

National Oceanic and Atmospheric Administration (NOAA). 2021. California Species List Tools. https://www.westcoast.fisheries.noaa.gov/maps_data/california_species_list_tools.html

National Marine Fisheries Service (NMFS). 2016. Final Coastal Multispecies Recovery Plan for California Coastal Chinook Salmon, Northern California Steelhead and Central California Coast Steelhead. NMFS, Southwest Region, Santa Rosa, California.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento, CA. 1300 pp.

Sibley. 2016. Sibley Birds West: Field Guide to Birds of Western North America. Knopf; second edition.

United States Department of Agricultural (USDA), Natural Resources Conservation Service (NRCS). 2019. *Web Soil Survey*. July 31, 2019. Available at: http://websoilsurvey.nrcs.usda.gov/app/ (accessed October 2021).

U.S. Fish and Wildlife Service (USFWS). 2021a. Information, Planning, and Conservation Online Tool [online]. http://ecos.fws.gov/ipac/ (accessed October 2021).

____. 2021b. Designated Critical Habitat Portal [online]. http://criticalhabitat.fws.gov/crithab/ (accessed October 2021).

____. 2021c. National Wetlands Inventory Online Application. http://www.fws.gov/wetlands/Data/Mapper.html (accessed October 2021).

____. 2011. California Red-legged Frog (Rana draytonii) species account. Arcata Fish and Wildlife Office, Arcata, California. https://www.fws.gov/arcata/es/amphibians/crlf/crlf.html (accessed October 2021).

United States Geological Service (USGS). 2021. National Hydrography Dataset. https://nhd.usgs.gov/index.html (accessed October 2021).

University of California, Berkeley. 2020. University and Jepson Herberia. https://ucjeps.berkeley.edu/interchange/ [Accessed October 2021].

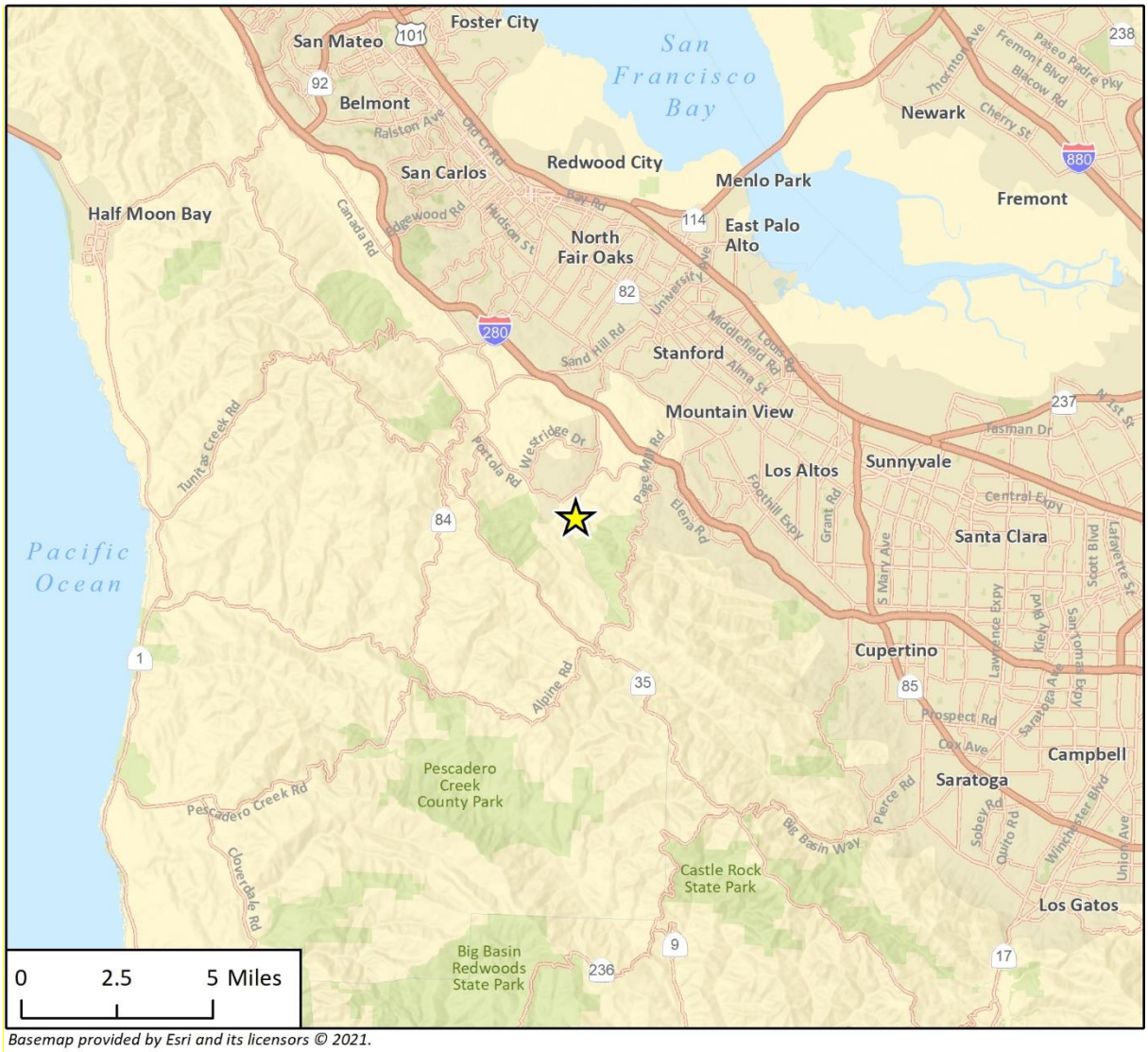
WRA (Wildlife Research Associates). 2014. Technical Memorandum Biotic Study: 805 Los Trancos Road, Palo Alto, California. May 27, 2008. Updated October 16, 2014.

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

Attachment 1

Figures

Figure 1 Regional Location



Basemap provided by Esri and its licensors © 2021.

Project Location

N

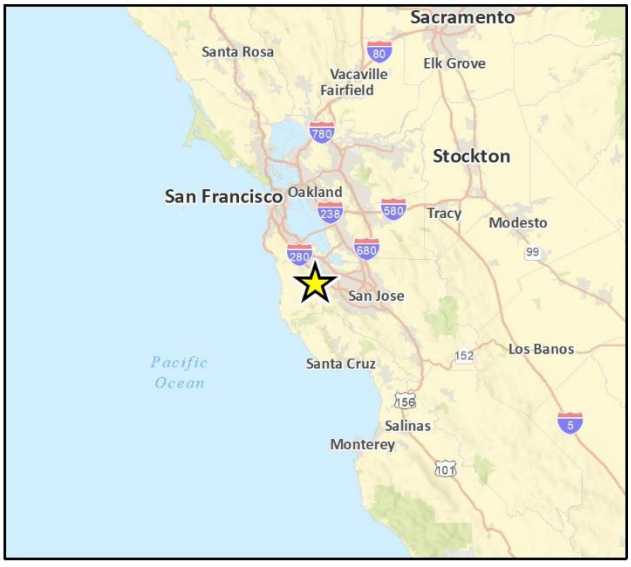
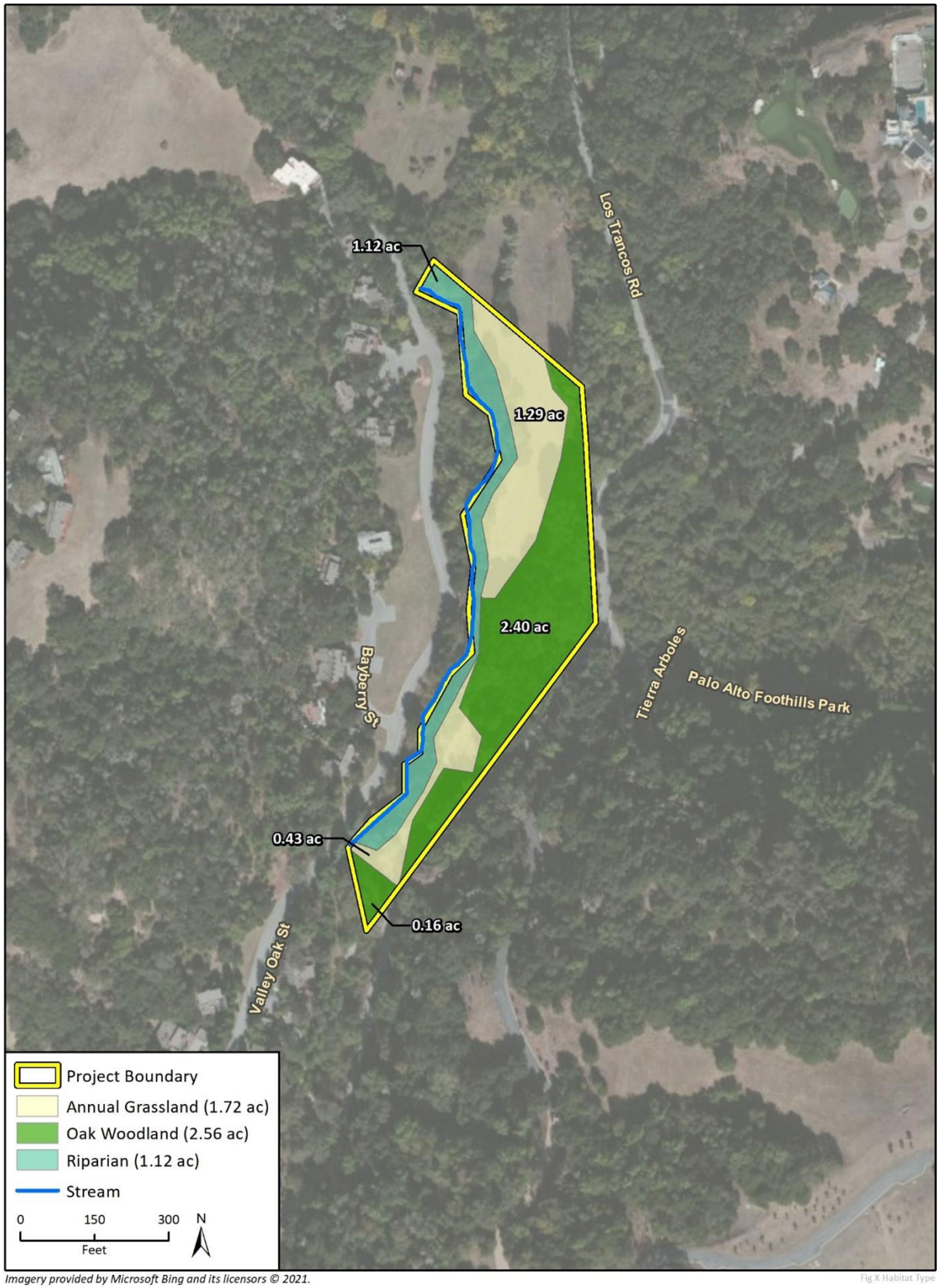


Figure 2 Land Cover Types



Attachment 2

Representative Site Photographs

Photograph 1. Overview of the coast live oak woodland within the project site. Photograph taken from the northern end of the project site, facing south.

Photograph 2. View of mowed non-native annual grassland surrounded by the oak woodland within the project area facing the northern boundary of the project area.

Photograph 3. Photograph of Los Trancos creek immediately adjacent to the west of the project area.

Photograph 4. San Francisco dusky footed woodrat nest within the project area.

Photograph 5. View of the oak woodland at the southern extent of the project area.

Photograph 6. View of the riparian woodland along the southern extent of the project area.

Photograph 7. Representative photo of the oak woodland within the project area.

Attachment 3

Plant Species List Observed

Scientific Name	Common Name	Origin & Cal-IPC Status[1]
Aesculus californica	California buckeye	Native
Artemesia douglasiana	mugwort	Native
Avena spp.	wild oats	Introduced; Cal-IPC Moderate
Bromus diandrus	ripgut grass	Introduced; Cal-IPC Moderate
Cynodon dactylon	Bermuda grass	Introduced; Cal-IPC Moderate
Genista monspessulana	French broom	Introduced; Cal-IPC High
Plantago lanceolata	English plantain	Introduced; Cal-IPC Limited
Quercus agrifolia	Coast live oak	Native
Quercus lobata	valley oak	Native
Rubus armeniacus	Himalayan blackberry	Introduced; Cal-IPC High
Salix lasiolepis	arroyo willow	Native
Toxicodendron diversilobum	poison oak	Native
Umbellularia californica	California bay	Native

[1] Cal-IPC: California Invasive Plant Council ratings

Attachment 4

Wildlife Species List Observed

Scientific Name	Common Name
Neotoma fuscipes annectens	San Francisco dusky-footed woodrat
Dryobates nuttallii	Nuttall's woodpecker
Melanerpes formicivorus	Acorn woodpecker
Sciurus niger	Fox squirrel
Cyanocitta stelleri	Steller's jay
Certhia americana	Brown creeper
Sciurus carolinensis	Eastern gray squirrel
Melozone crissalis	California towhee
Junco hyemalis	Dark eyed junco

Attachment 5

Special-Status Species Evaluation Tables

Special-Status Plant Species in the Regional Vicinity (Nine Quad) of the Project Site

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Acanthomintha duttonii San Mateo thorn-mint	FE/SE G1/S1 1B.1	Chaparral, Valley and foothill grassland. Uncommon serpentinite vertisol clays; in relatively open areas. 50-300m. Blooms Apr-Jun.	Not Expected	Suitable serpentine soils not present. One historic occurrence from 1977 has been recorded within 5 miles, approximately 5 miles to the north of the site, and is considered extirpated (CDFW 2021a).
Allium peninsulare var. franciscanum Franciscan onion	None/None G5T2/S2 1B.2	Cismontane woodland, Valley and foothill grassland. Clay soils; often on serpentine; sometimes on volcanics. Dry hillsides. 52-305m. Blooms (Apr)May-Jun.	Not Expected	Suitable woodland habitat and grasslands are present. No native grassland communities are present within the site. Clay soils are present; however, no serpentine formations occur within the project site. One recent occurrence from 2013 is recorded within 5 miles of the project site, approximately 3.25 miles to the northeast (CDFW 2021a).
Amsinckia lunaris bent-flowered fiddleneck	None/None G3/S3 1B.2	Cismontane woodland, Coastal bluff scrub, Valley and foothill grassland. 3-500m. Blooms Mar-Jun.	Not Expected	Grasslands and coast live oak woodland are present. The non-native grasslands present are not a natural vegetation community and are frequently disturbed by mowing. No occurrences have been reported within 5 miles (CDFW 2021a).
Arctostaphylos andersonii Anderson's manzanita	None/None G2/S2 1B.2	Broadleafed upland forest, Chaparral, North Coast coniferous forest. Open sites, redwood forest. 60-760m. Blooms Nov-May.	Not Expected	Suitable vegetation communities absent. This species would have been observed if present.
Arctostaphylos regismontana Kings Mountain manzanita	None/None G2/S2 1B.2	Broadleafed upland forest, Chaparral, North Coast coniferous forest. Granitic or sandstone outcrops. 305-730m. Blooms Dec-Apr.	Not Expected	Suitable vegetation communities, elevations, and rock outcrops absent. Would have been observed if present.
Astragalus pycnostachyus var. *pycnostachyus* coastal marsh milk-vetch	None/None G2T2/S2 1B.2	Coastal dunes, Coastal scrub, Marshes and swamps. Mesic sites in dunes or along streams or coastal salt marshes. 0-30m. Blooms (Apr)Jun-Oct.	Not Expected	No suitable habitat or elevations occurs in the project site.

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Astragalus tener var. *tener* alkali milk-vetch	None/None G2T1/S1 1B.2	Playas, Valley and foothill grassland, Vernal pools. Low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal pools. 1-60m. Blooms Mar-Jun.	Not Expected	No suitable habitat occurs in the project site. Outside of suitable elevation.
Centromadia parryi ssp. *congdonii* Congdon's tarplant	None/None G3T1T2/S1S2 1B.1	Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. 0-230m. Blooms May-Oct(Nov).	Not Expected	Suitable soils absent.
Chloropyron maritimum ssp. *palustre* Point Reyes salty bird's-beak	None/None G4?T2/S2 1B.2	Marshes and swamps. Usually in coastal salt marsh with Salicornia, Distichlis, Jaumea, Spartina, etc. 0-10m. Blooms Jun-Oct.	Not Expected	No suitable habitat occurs in the project site.
Chorizanthe pungens var. hartwegiana Ben Lomond spineflower	FE/None G2T1/S1 1B.1	Lower montane coniferous forest. Zayante coarse sands in maritime ponderosa pine sandhills. 90-610m. Blooms Apr-Jul.	Not Expected	No suitable habitat occurs in the project and it does not contain maritime ponderosa forests.
Cirsium fontinale var. fontinale fountain thistle	FE/SE G2T1/S1 1B.1	Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland. Serpentine seeps and grassland. 45-175m. Blooms (Apr)May-Oct.	Not Expected	No suitable habitat occurs in the project site and serpentine soils are not present.
Collinsia corymbosa round-headed Chinese-houses	None/None G1/S1 1B.2	Coastal dunes. 0-20m. Blooms Apr-Jun.	Not Expected	No suitable habitat or elevations occur in the project site.
Collinsia multicolor San Francisco collinsia	None/None G2/S2 1B.2	Annual herb. Blooms March-May. Closed-cone coniferous forest, coastal scrub. On decomposed shale (mudstone) mixed with humus. 30-250m (100-820ft).	Not Expected	Closed cone coniferous forests and suitable soils are absent.
Dirca occidentalis western leatherwood	None/None G2/S2 1B.2	Broadleafed upland forest, Chaparral, Cismontane woodland, Closed-cone coniferous forest, North Coast coniferous forest, Riparian forest, Riparian woodland. On brushy slopes, mesic sites; mostly in mixed evergreen & foothill woodland communities. 25-425m. Blooms Jan-Mar(Apr).	Not Expected	Suitable habitat, including riparian woodland is present on the project site; however, this species would have been observed if present.

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Eriophyllum latilobum San Mateo woolly sunflower	FE/SE G1/S1 1B.1	Cismontane woodland, Coastal scrub, Lower montane coniferous forest. Often on roadcuts; found on and off of serpentine. 45-330m. Blooms May-Jun.	Low Potential	Coast live oak woodland is present. One historic occurrence from 1962 is recorded within 5 miles of the project site, approximately 1.8 miles to the southwest (CDFW 2021a).
Eryngium aristulatum var. *hooveri* Hoover's button-celery	None/None G5T1/S1 1B.1	Vernal pools. Alkaline depressions, vernal pools, roadside ditches and other wet places near the coast. 3-45m. Blooms (Jun)Jul(Aug).	Not Expected	No suitable habitat occurs in the project site, which outside of known elevation for this species.
Eryngium jepsonii Jepson's coyote-thistle	None/None G2/S2 1B.2	Valley and foothill grassland, Vernal pools. Clay. 3-300m. Blooms Apr-Aug.	Not Expected	No vernal pools within the project site. Suitable soils not present
Fissidens pauperculus minute pocket moss	None/None G3?/S2 1B.2	North Coast coniferous forest. Moss growing on damp soil along the coast. In dry streambeds and on stream banks. 10-1024m.	Not Expected	No suitable habitat occurs in the project site, and no occurrences have been recorded within 5 miles (CDFW 2021a).
Fritillaria liliacea fragrant fritillary	None/None G2/S2 1B.2	Cismontane woodland, Coastal prairie, Coastal scrub, Valley and foothill grassland. Often on serpentine; various soils reported though usually on clay, in grassland. 3-410m. Blooms Feb-Apr.	Low Potential	Suitable habitat present although no serpentine soils were observed on the project site. One historical occurrence from 1932 has been recorded within 5 miles of the project site, approximately 2.5 miles to the north (CDFW 2021a).
Hesperocyparis abramsiana var. *abramsiana* Santa Cruz cypress	FT/SE G1T1/S1 1B.2	Chaparral, Closed-cone coniferous forest, Lower montane coniferous forest. Restricted to the Santa Cruz Mountains, on sandstone & granitic-derived soils; often w/*Pinus attenuata*, redwoods. 280-800m. Blooms .	Not Expected	No suitable habitat or elevation occurs in the project site. Would have been observed if present.
Hesperocyparis abramsiana var. *butanoensis* Butano Ridge cypress	FT/SE G1T1/S1 1B.2	Chaparral, Closed-cone coniferous forest, Lower montane coniferous forest. Sandstone. 400-490m. Blooms Oct.	Not Expected	No suitable habitat or elevation occurs in the project site. Would have been observed if present.
Hesperolinon congestum Marin western flax	FT/ST G1/S1 1B.1	Chaparral, Valley and foothill grassland. In serpentine barrens and in serpentine grassland and chaparral. 5-370m. Blooms Apr-Jul.	Not Expected	Suitable soils are absent.

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Hoita strobilina Loma Prieta hoita	None/None G2?/S2? 1B.1	Chaparral, Cismontane woodland, Riparian woodland. Serpentine; mesic sites. 30-860m. Blooms May-Jul (Aug-Oct).	Not Expected	Although suitable woodlands, including riparian woodlands occur on the project site, suitable serpentine soils are absent and no occurrences have been recorded within 5 miles.
Legenere limosa legenere	None/None G2/S2 1B.1	Vernal pools. In beds of vernal pools. 1-880m. Blooms Apr-Jun.	Not Expected	No suitable vernal pool habitat occurs in the project site.
Limnanthes douglasii ssp. *sulphurea* Point Reyes meadowfoam	None/SE G4T1/S1 1B.2	Coastal prairie, Marshes and swamps, Meadows and seeps, Vernal pools. Vernally wet depressions in open rolling, coastal prairies and meadows; typically in dark clay soil. 0-140m. Blooms Mar-May.	Not Expected	No suitable habitat occurs in the project site.
Malacothamnus arcuatus arcuate bush-mallow	None/None G2Q/S2 1B.2	Chaparral, Cismontane woodland. Gravelly alluvium. 15-355m. Blooms Apr-Sep.	Low Potential	Suitable woodland habitat is present; however, regular vegetation maintenance decreases the likelihood of their occurrence. No individuals were observed during the site visit.Two recent occurrences (2013 and 2015) have been recorded within 5 miles of the project site (CDFW 2021a).
Monolopia gracilens woodland woollythreads	None/None G3/S3 1B.2	Broadleafed upland forest, Chaparral, Cismontane woodland, North Coast coniferous forest, Valley and foothill grassland. Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns, but may have only weak affinity to serpentine. 100-1200m. Blooms (Feb)Mar-Jul.	Moderate Potential	Suitable habitat is present within the project site and three recent occurrences (2015-2018) have been recorded within 5 miles of the project site (CDFW 2021a).
Pedicularis dudleyi Dudley's lousewort	None/SR G2/S2 1B.2	Chaparral, Cismontane woodland, North Coast coniferous forest, Valley and foothill grassland. Deep shady woods of older coast redwood forests; also in maritime chaparral. 60-900m. Blooms Apr-Jun.	Low Potential	Woodland habitat occurs on the project site however, deep shady forests and maritime chapparal are absent. No occurrences have been recorded within 5 miles (CDFW 2021a).

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Pentachaeta bellidiflora white-rayed pentachaeta	FE/SE G1/S1 1B.1	Cismontane woodland, Valley and foothill grassland. Open dry rocky slopes and grassy areas, often on soils derived from serpentine bedrock. 35-620m. Blooms Mar-May.	Not Expected	The annual grassland present on the project site is not a natural grassland community and is regularly maintained, thus would not provide suitable habitat. No occurrences have been recorded within 5 miles (CDFW 2021a).
Piperia candida white-flowered rein orchid	None/None G3/S3 1B.2	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest. Sometimes on serpentine. Forest duff, mossy banks, rock outcrops, and muskeg. 30-1310m. Blooms (Mar)May-Sep.	Not Expected	No suitable habitat occurs in the project site. Only one occurrence from 1992 has been recorded within 5 miles of the project site (CDFW 2021a).
Plagiobothrys chorisianus var. chorisianus Choris' popcornflower	None/None G3T1Q/S1 1B.2	Chaparral, Coastal prairie, Coastal scrub. Mesic sites. 3-160m. Blooms Mar-Jun.	Not Expected	No suitable habitat occurs in the project site.
Plagiobothrys diffusus San Francisco popcornflower	None/SE G1Q/S1 1B.1	Coastal prairie, Valley and foothill grassland. Historically from grassy slopes with marine influence. 60-360m. Blooms Mar-Jun.	Not Expected	Grasslands present in the project site are not natural grassland communities and no occurrences have been recorded within 5 miles (CDFW 2021a).
Senecio aphanactis chaparral ragwort	None/None G3/S2 2B.2	Chaparral, Cismontane woodland, Coastal scrub. Drying alkaline flats. 15-800m. Blooms Jan-Apr(May).	Not Expected	No suitable soils occur in the project site.
Stuckenia filiformis ssp. *alpina* slender-leaved pondweed	None/None G5T5/S2S3 2B.2	Marshes and swamps. Shallow, clear water of lakes and drainage channels. 300-2150m. Blooms May-Jul.	Not Expected	No suitable habitat nor elevation occurs in the project site
Suaeda californica California seablite	FE/None G1/S1 1B.1	Marshes and swamps. Margins of coastal salt marshes. 0-15m. Blooms Jul-Oct.	Not Expected	No suitable habitat occurs in the project site.
Trifolium amoenum two-fork clover	FE/None G1/S1 1B.1	Coastal bluff scrub, Valley and foothill grassland. Sometimes on serpentine soil, open sunny sites, swales. Most recently cited on roadside and eroding cliff face. 5-415m. Blooms Apr-Jun.	Low Potential	Grassland habitat is present; however, it is non-native, and not a natural community. One historical occurrence has been recorded in 1950, approximately 3 miles north of the project site (CDFW 2021a).

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Trifolium buckwestiorum Santa Cruz clover	None/None G2/S2 1B.1	Broadleafed upland forest, Cismontane woodland, Coastal prairie. Moist grassland. Gravelly margins. 105-610m. Blooms Apr-Oct.	Low Potential	Suitable woodland habitat is present; however, no occurrences have been recorded within five miles of the project site (CDFW 2021a).
Trifolium hydrophilum saline clover	None/None G2/S2 1B.2	Marshes and swamps, Valley and foothill grassland, Vernal pools. Mesic, alkaline sites. 0-300m. Blooms Apr-Jun.	Not Expected	No alkaline soils or suitable natural vegetation communities occur within the project site. No occurrences have been recorded within five (CDFW 2021a).

Regional Vicinity refers to within a 9-quad search radius of site.

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

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

CRPR (CNPS California Rare Plant Rank):

1A=Presumed Extinct in California

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

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

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

CRPR Threat Code Extension:

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

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

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

Special-Status Animal Species in the Regional Vicinity (Nine Quad) of the Project Site

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Invertebrates				
Euphydryas editha bayensis Bay checkerspot butterfly	FT/None G5T1/S1	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. *Plantago erecta* is the primary host plant; *Orthocarpus densiflorus* & *O. purpurscens* are the secondary host plants.	Not Expected	No suitable habitat present within the project site
Speyeria zerene myrtleae Myrtle's silverspot butterfly	FE/None G5T1/S1	Restricted to the foggy, coastal dunes/hills of the Point Reyes peninsula; extirpated from coastal San Mateo County. Larval foodplant thought to be *Viola adunca*.	Not Expected	No suitable habitat present within the project site, species has been extirpated from its range in the vicinity of the project site.
Fish				
Oncorhynchus mykiss irideus pop. 8 steelhead - central California coast DPS	FT/None G5T2T3Q/S2S3	DPS includes all naturally spawned populations of steelhead (and their progeny) in streams from the Russian River to Aptos Creek, Santa Cruz County, California (inclusive). Also includes the drainages of San Francisco and San Pablo Bays.	High Potential	Steelhead are known in the San Francisquito Creek watershed and have been observed in Los Trancos Creek (Leidy et al. 2005).
Spirinchus thaleichthys longfin smelt	FC/ST G5/S1	Euryhaline, nektonic & anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.	Not Expected	No suitable habitat present within the project site
Amphibians				
Aneides niger Santa Cruz black salamander	None/None G3/S3 SSC	Mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz, and Santa Clara counties. Adults found under rocks, talus, and damp woody debris.	Moderate Potential	Suitable habitat is present, there are five records within five miles of the project site
Dicamptodon ensatus California giant salamander	None/None G3/S2S3 SSC	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County, and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	Moderate Potential	Suitable habitat is present, there are five records within five miles of the project site
Rana boylii foothill yellow-legged frog	None/SE G3/S3 SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	Not Expected	Suitable habitat is present however, the species is presumed to be extirpated from the region.

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Rana draytonii California red-legged frog	FT/None G2G3/S2S3 SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Moderate Potential	Suitable foraging habitat is present with in the project site. There are 10 recorded occurrences within five miles of the project site (CDFW 2021a). The nearest breeding habitat is approximately 2.6 miles north in San Francisquito Creek.
Reptiles				
Emys marmorata western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Moderate Potential	Suitable habitat for breeding and foraging is present within the project site. There are three records within five miles of the project site, closest record is approximately 2.9 miles north in San Francisquito Creek.
Thamnophis sirtalis tetrataenia San Francisco gartersnake	FE/SE G5T2Q/S2 FP	Vicinity of freshwater marshes, ponds and slow-moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot. Upland areas near water are also very important.	Moderate Potential	Suitable habitat is present and there are 13 recorded occurrences within five miles of the project site (CDFW 2021a).
Birds				
Asio flammeus short-eared owl	None/None G5/S3 SSC	Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	Not Expected	Suitable habitat is not present and there are no recorded occurrences within five miles of the project site (CDFW 2021a).
Asio otus long-eared owl	None/None G5/S3? SSC	Riparian bottomlands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses. Require adjacent open land, productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.	Low Potential	Suitable habitat is present. One historic occurrence from 1987 has been recorded within 5 miles of the project site, approximately 4 miles to the southeast (CDFW 2021a).

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Athene cunicularia burrowing owl	None/None G4/S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Not Expected	No suitable habitat is present within the project site. Grassland present on the site is routinely mowed and disturbed. The only recorded occurrence within 5 miles is from 2017, approximately 2.8 miles south of the project site (CDFW 2021a).
Brachyramphus marmoratus marbled murrelet	FT/SE G3/S2	Feeds near-shore; nests inland along coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz. Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas-fir.	Not Expected	No suitable habitat present and the project site is 11 miles inland, outside of the known species range.
Charadrius nivosus nivosus western snowy plover	FT/None G3T3/S2 SSC	Sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Not Expected	No suitable habitat present within the project site.
Circus hudsonius northern harrier	None/None G5/S3 SSC	Coastal salt & freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Not Expected	Although suitable foraging habitat is present within the project site, no nearby marshes are known and no occurrences have been recorded within five miles of the project site (CDFW 2021a).
Coturnicops noveboracensis yellow rail	None/None G4/S1S2 SSC	Summer resident in eastern Sierra Nevada in Mono County. Small numbers winter regularly in the San Francisco Bay estuary.	Not Expected	Outside of usual species range and no suitable habitat present within the project site.
Elanus leucurus white-tailed kite	None/None G5/S3S4 FP	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Not Expected	No suitable habitat present within the project site.
Falco peregrinus anatum American peregrine falcon	FD/SD G4T4/S3S4 FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Not Expected	No suitable nesting habitat present within the project site.
Geothlypis trichas sinuosa saltmarsh common yellowthroat	None/None G5T3/S3 SSC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	Not Expected	No suitable habitat present within the project site.

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Haliaeetus leucocephalus bald eagle	FD/SE G5/S3 FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Not Expected	No suitable nesting or foraging habitat present within the project site.
Laterallus jamaicensis coturniculus California black rail	None/ST G3G4T1/S1 FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Not Expected	No suitable habitat present within the project site
Melospiza melodia pusillula Alameda song sparrow	None/None G5T2?/S2S3 SSC	Resident of salt marshes bordering south arm of San Francisco Bay. Inhabits Salicornia marshes; nests low in Grindelia bushes (high enough to escape high tides) and in Salicornia.	Not Expected	No suitable habitat present within the project site.
Rallus obsoletus obsoletus California Ridgway's rail	FE/SE G3T1/S1 FP	Salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.	Not Expected	No suitable habitat present within the project site.
Rynchops niger black skimmer	None/None G5/S2 SSC	Nests on gravel bars, low islets, and sandy beaches, in unvegetated sites. Nesting colonies usually less than 200 pairs. .	Not Expected	No suitable nesting or foraging habitat present within the project site.
Sternula antillarum browni California least tern	FE/SE G4T2T3Q/S2 FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, land fills, or paved areas.	Not Expected	No suitable habitat present within the project site.
Mammals				
Antrozous pallidus pallid bat	None/None G4/S3 SSC	Found in a variety of habitats including deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in crevices of rock outcrops, caves, mine tunnels, buildings, bridges, and hollows of live and dead trees which must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Moderate Potential	Suitable habitat is present and there are three recorded occurrences within five miles of the project site (CDFW 2021a).
Corynorhinus townsendii Townsend's big-eared bat	None/None G4/S2 SSC	Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open, hanging from walls & ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance.	Moderate Potential	Suitable habitat is present and there are 13 recorded occurrences within five miles of the project site (CDFW 2021a).
Neotoma fuscipes annectens San Francisco dusky-footed woodrat	None/None G5T2T3/S2S3 SSC	Typically found in forest habitats with moderate to dense understory. Can occur in chaparral, riparian woodlands, and coniferous forests, particularly redwood. Builds middens out of grasses, leaves, and woody debris. This subspecies is found only in the San Francisco Bay region.	Present	Nests were observed during reconnaissance surveys.

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Reithrodontomys raviventris salt-marsh harvest mouse	FE/SE G1G2/S1S2 FP	Only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat but may occur in other marsh vegetation types and in adjacent upland areas. Does not burrow; builds loosely organized nests. Requires higher areas for flood escape.	Not Expected	No suitable habitat present within the project site.
Sorex vagrans halicoetes salt-marsh wandering shrew	None/None G5T1/S1 SSC	Salt marshes of the south arm of San Francisco Bay. Medium high marsh 6-8 ft above sea level where abundant driftwood is scattered among Salicornia.	Not Expected	No suitable habitat present within the project site.
Taxidea taxus American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Not Expected	No suitable habitat present within the project site.

Regional Vicinity refers to within a 5-mile search radius of site.

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

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

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