



August 23, 2023

Manny and Marilyn Bagnas
10692 Carver Drive
Cupertino, CA 95014

RE: 2023 update to a 2011 Biotic Assessment Report for the Project site located near Sanborn Road and Ambrose Road Los Gatos, California (PN 422-07)

Dear Manny and Marilyn Bagnas:

Live Oak Associates, Inc. (LOA) ecologist Cristal Romero conducted a site visit to the project located near Sanborn Rd and Ambrose Rd (see Figure 1, Vicinity Map) to assess for any changes in site conditions or biological resources that are detailed in LOA's April 2011 Biotic Assessment Report. In addition to the site visit, Ms. Romero also conducted a review of existing sources for up-to-date information on special status species that may exist onsite. Details on those changes—including an updated special status species list, maps, and pictures—are compiled below.

Habitats/Landcover

Habitats

The biotic habitats, of which there are five, are the same as the biotic habitats described in the 2011 report. These habitats are 1) Chaparral 2) California Bay woodland 3) mixed woodland 4) non-native grassland and 5) ruderal. The plant species that make up these habitats as well as the wildlife species that would utilize each habitat remain as noted in the 2011 report (attached as Appendix B), the aquatic features that exist onsite are also as described in the 2011 report.

Differences from previously noted conditions

As we understand it, vegetation removal and grading activities has occurred since our previous report in 2011, including the construction of a retaining wall (see Photo 1) along the portion of the site that is shaped like a peninsula near the northwest corner (see project boundaries in Figure 2). Live Oak is not aware of the exact timing of these activities but would judge them to have occurred several years ago, based on review from aerial imagery as well as regrowth of vegetation. In assessing the landscape forensically, it appears that the area graded is mostly in the northern half of the site, along west and south facing slopes. The affected and adjacent

OAKHURST

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SAN JOSE

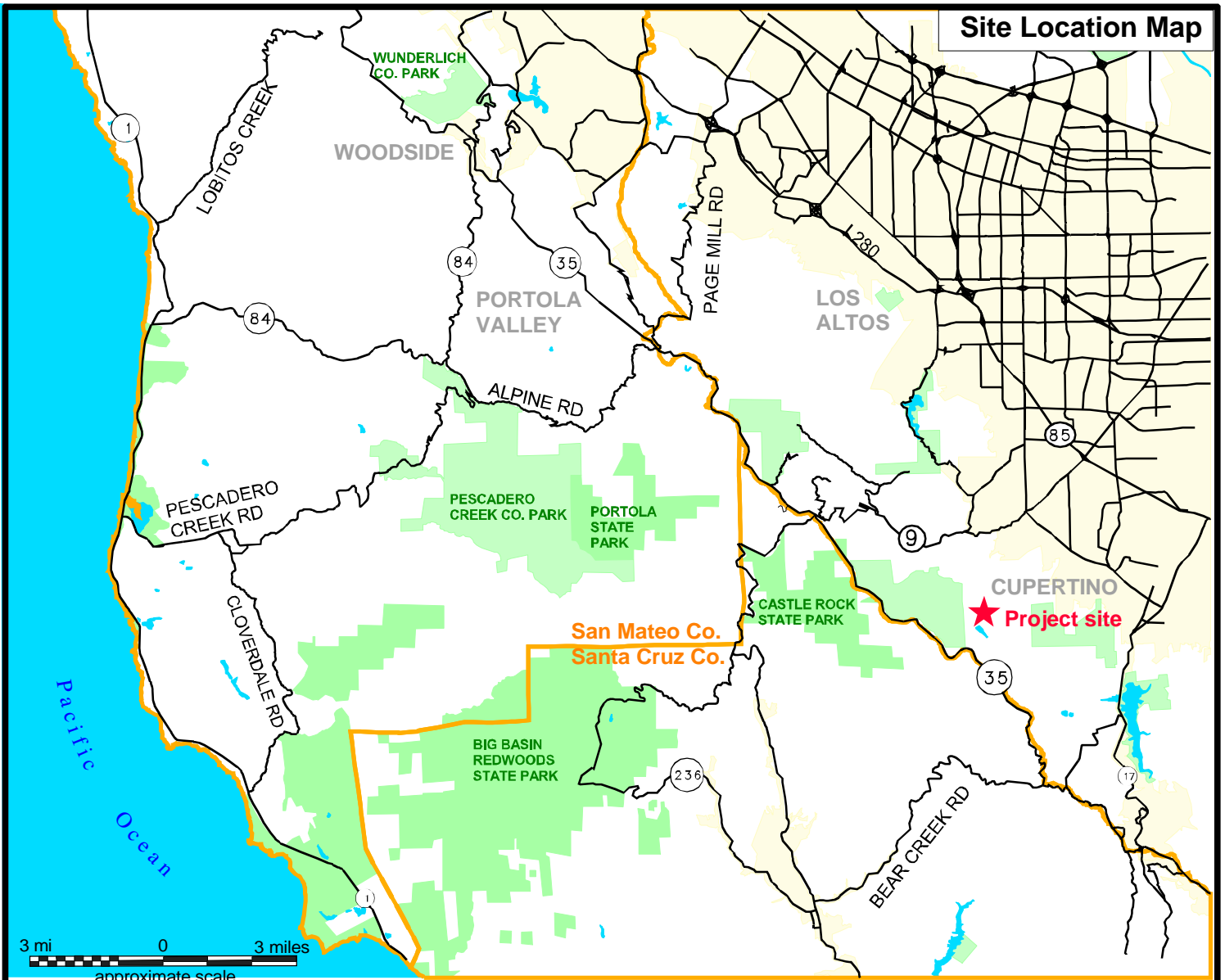
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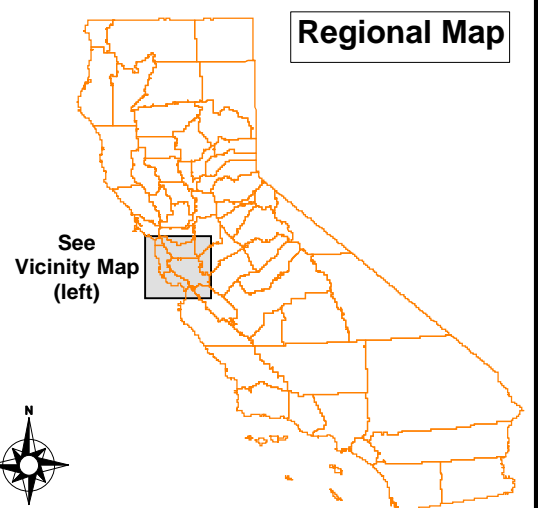
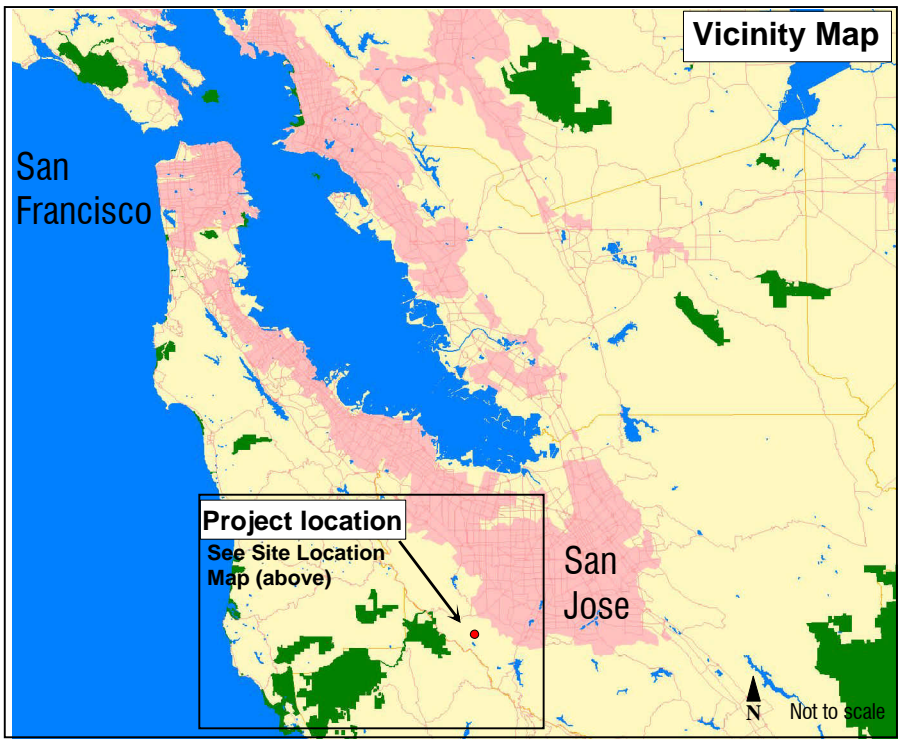
SOUTH LAKE TAHOE


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3 mi 0 3 miles
approximate scale





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Bagnas Property

Vicinity Map

Date 8/22/2023	Project # 422-07	Figure # 1
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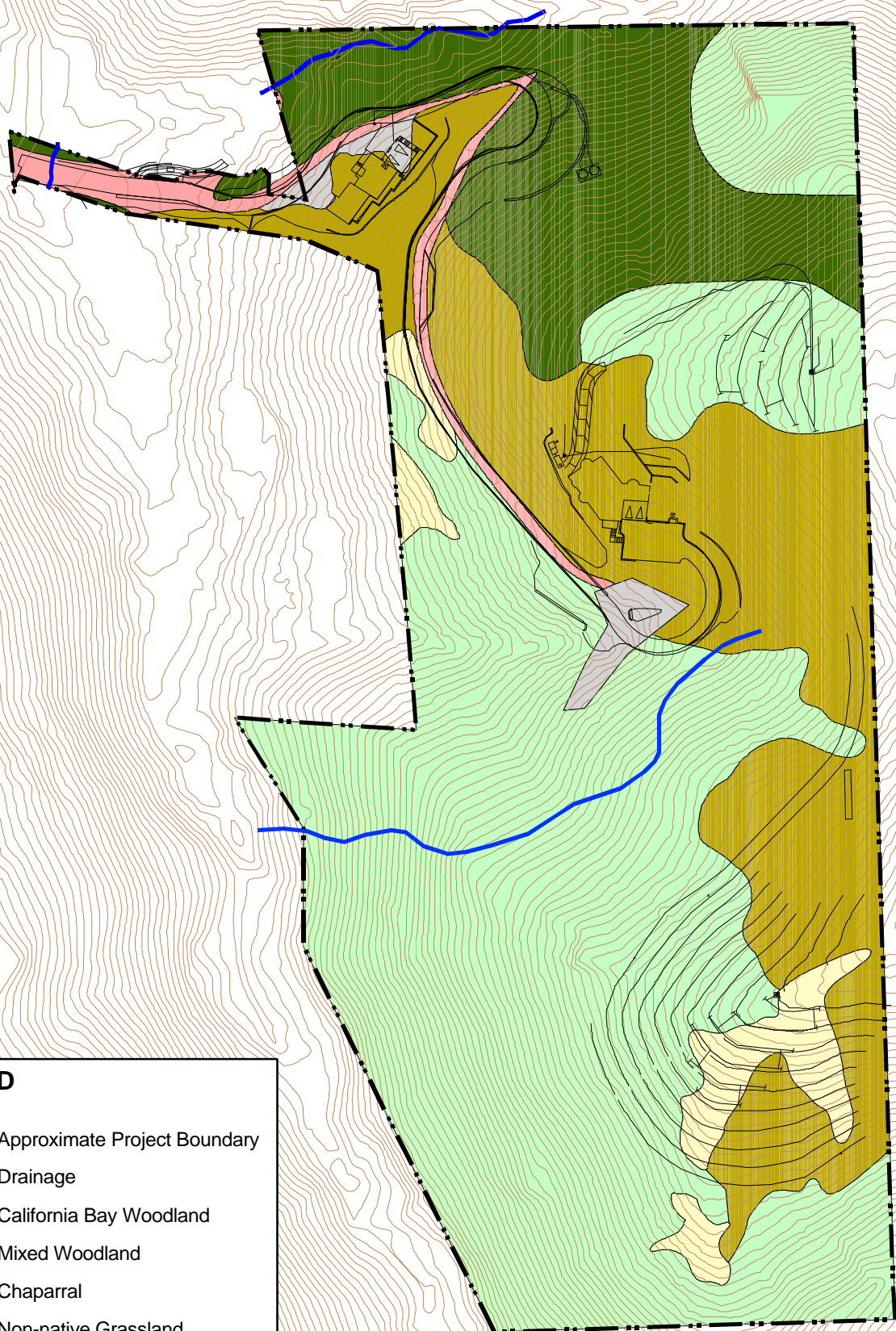
habitats appear to be chaparral, ruderal, and woodland; however, the exact boundaries of the area graded are ambiguous due to the re-growth of vegetation as well as some areas being covered with plastic sheeting (see Photo 2). The boundaries of the habitats found onsite have changed moderately, most notably in the northern half of the project site (see Figure 2, Habitat/Landcover Map). Specifically, there are areas previously noted as either California bay woodland or mixed woodland that are now more appropriately classified as chaparral. This is mostly in the area that appears to have undergone some grading and it is likely that the grading activities affected this change in habitat. There is also significant areas of erosion/bare ground within these areas (see Photo2) , where the lack of vegetation probably left the soil vulnerable to heavy rains.

Less notably, there is an area where there is a narrow access road/trail—which may have also been subject to the grading activities—that is best described as ruderal. There are also a few small areas previously classified as chaparral that are more appropriately described as a mixed woodland. The change in habitat boundaries does not change the conclusions made in the 2011 report regarding potential impacts and the mitigation measures.








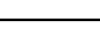
Special Status Plant and Animal Species.

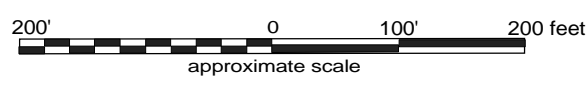
Potential impacts to special status plants and animals largely remains the same since the 2011 report. While there are many plant and animal species that have received protective designations since the original report, most would be considered absent from the site. Specifically, all additional special status plant species are considered absent due to the site 1) being outside the species' range or 2) because the soils of the site do not support the species, such as serpentine, alkaline, or mesic soils or 3) because the habitats required by the species are not present on the site such as broadleaf forest, coniferous forest, etc. Similarly, there are several wildlife species that are considered absent since these species require specific habitat—such as saltmarsh, serpentine vegetation, or certain types of aquatic features—that do not exist onsite. These include the salt-marsh harvest mouse (*Reithrodontomys raviventris*), callippe silverspot butterfly (*Speyeria callippe callippe*), Bay checkerspot butterfly (*Euphydryas editha bayensis*), Zayante band-winged grasshopper (*Trimerotropis infantilis*), California black rail (*Laterallus jamaicensis coturniculus*), yellow rail (*Coturnicops noveboracensis*), California Ridgway's rail (*Rallus obsoletus obsoletus*), saltmarsh common yellow throat (*Geothlypis trichas sinuosa*), long-billed curlew (*Numenius americanus*), black skimmer (*Rynchops niger*), western snowy plover (*Charadrius nivosus nivosus*), California least tern (*Sternula antillarum browni*), and elegant tern (*Thalasseus elegans*). All fish species would also be considered absent from the site, including but not limited to species of perch, roach, hitch, salmon, and steelhead due to the size and seasonality of the unnamed tributaries that exist onsite.


The 12 animal species which have some potential to occur in the area of the project site are assessed for their potential to occur on the project site in the table below.



LEGEND

-  Approximate Project Boundary
-  Drainage
-  California Bay Woodland
-  Mixed Woodland
-  Chaparral
-  Non-native Grassland
-  Ruderal / Developed
-  Erosion



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Bagnas Property
Habitats / Land Cover

Date 8/22/2023 Project # 422-07 Figure # 2



Table 1. Additional Special Status Animals and Their Potential to Occur on the Project Site.

Species	Status	Habitat	*Occurrence in the Study Area
Western bumblebee <i>Bombus occidentalis</i>	CCE	In California, mainly occurring within the coastal and Sierra Nevada ranges within meadows and grasslands and some natural areas within urban environments. Indication of recent population potentially being restricted to high elevation and coastal areas. Historically occurred from the Channel Islands to the northern California border. Flight period is February to late November, peaking in late June and late September. Tends to construct nest underground in animal burrows on west and south-west facing slopes. Overwintering sites are likely in friable soils or in debris or leaf litter.	Absent. Suitable nectar sources are absent from the project site.
Crotch bumble bee <i>Bombus crotchii</i>	CCE	In California, inhabits open grassland and scrub habitats of the southern 2/3 of California. Historically in, but largely extirpated from the Central Valley. Flight period for queens is late February to late October peaking in April and July; flight period for males and workers is March through September peaking in early July. Constructs nests underground in animal burrows. Overwintering sites are likely in soft soils or in debris or leaf litter.	Absent. Suitable nectar sources are absent from the project site.
Santa Cruz black salamander <i>Aneides niger</i>	CSC	Occurs in deciduous woodland, coniferous forests, and coastal grasslands around the Santa Cruz Mountains and foothills. This species is also known to occur on the developed flats in pockets within older developments. They can be found under rocks near streams, in talus, under damp logs, rotting wood, and other objects.	Possible The unnamed tributaries found onsite may provide habitat for this species. The nearest recorded observations, approximately 1 mile away, are over 50 years old. There are more recent observations, such as two that occurred in 2016, but these are approximately 5 miles away.
California Giant Salamander <i>Dicamptodon ensatus</i>	CSC	Occurs in or adjacent to cold clear permanent to semi-permanent streams and seeps.	Possible. The unnamed tributaries found onsite may provide habitat for this species. The nearest recorded observation of this species occurred 9 years ago and was approximately 1 mile away.
Red-bellied newt <i>Taricha rivularis</i>	CSC	Inhabits primarily redwood forest, but also found within mixed conifer, valley-foothill	Unlikely. The preferred woodland type for this species is not abundant onsite. The



Species	Status	Habitat	*Occurrence in the Study Area
		woodland, montane hardwood and hardwood-conifer habitats. Migrates to streams during fall and winter rains. I	closest recorded CNDDDB observation for this species is over 7 miles away.
Northern California legless lizard <i>Anniella pulchra</i>	CSC	The NCLL (previously called silvery legless lizard) occurs mostly underground in warm moist areas with loose soil and substrate. The NCLL occurs in habitats including sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks.	Absent. Potentially suitable habitat for this species is absent from the site. Additionally, the nearest recorded observation of this species is more than three miles from the site (CDFW 2023).
Coast horned lizard <i>Phrynosoma blainvillii</i>	CSC	Occur in grasslands, scrublands, oak woodlands, etc. of central California. Common in sandy washes with scattered shrubs and along dirt roads	Unlikely. The site provides marginal habitat for this species. There are no recorded observations within the 5km of the site.
Swainson's hawk <i>Buteo swainsoni</i>	CT	Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah. Requires adjacent suitable foraging areas such as grasslands or alfalfa fields supporting rodent populations.	Unlikely. Swainson's hawks are beginning to return to Santa Clara County, however, nesting areas have been consistently occurring south of San Jose along the Highway 101 corridor. The nearest recorded observation of this species is more than three miles from the site (CDFW 2023).
Bald Eagle <i>Haliaeetus leucocephalus</i>	CP	Inhabits areas that are within a couple miles of a large body of water, in which they will do a significant portion of their hunting. Typically nest in large, mature, accessible trees, as well as cliffs and man-made structures.	Unlikely. The site provides limited breeding habitat (in the taller trees) and no foraging habitat due to the dense structure of the tree canopy. No open areas for hunting.
Least Bells vireo <i>Vireo bellii pusillus</i>	FE	A riparian species, depend on dense, low-growing thickets of willows, mulefat, mugwort, and California wild rose; especially if there is an overstory of taller willows, cottonwoods, and sycamores also present.	Unlikely. The riparian habitat found onsite is marginal for this species. There are no recorded observations within the 5km of the site.
Purple martin <i>Progne subis</i>	CSC	Inhabits woodlands, low elevation coniferous forest of Douglas fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities, also in human-made structures and nests widely in human-made birdhouses. Nests often located in tall, isolated trees or snags.	Unlikely. The trees of the site may provide potential nesting habitat; however, these birds are known to nest near open water, which is not present onsite or in the vicinity of the site. The purple martin may be expected to fly over or forage on the site from time to time.
American badger <i>Taxidea taxus</i>	CSC	Found in drier open stages of most shrub, forest and herbaceous habitats with friable soils.	Possible. This species is known to occur in the region and suitable habitat for it is found onsite.



Movement Corridors

Potential impacts to movement corridors have not changed since the 2011 report.

Wetlands and Other Jurisdictional Waters.

Potential impacts to wetlands and other Jurisdictional waters remains as described in the 2011 report.

Degradation of Water Quality in Seasonal Drainages, Stock Ponds and Downstream Waters

Potential impacts to Seasonal Drainages, Stock Ponds and Downstream Waters remains as described in the 2011 report.

Conflicts with Provisions of an Adopted Conservation Plan

The project site remains outside of the area for which the Santa Clara Valley Habitat Plan applies.

Conclusions.

There have been moderate changes to site conditions since our 2011 report in the form of different habitat boundaries, changes in grade, removal of vegetation, and erosion. However, these changes are not significant enough to have created additional potential impacts to the biological resources referenced in this letter.

If you have any questions or concerns regarding this letter report, please contact me at (408) 605-6077 or Rick Hopkins at (408) 281-5885, at your convenience.

Sincerely,

Cristal Romero, B.S.
Project Manager
Wildlife Ecologist



Appendix A - Photos.



Photo 1. Area bordered in purple has been built up, creating a significant slope. Area in blue is where a retaining wall has been built.



Photo 2 and 3. Representative photos of some of the areas where there appears to have been vegetation removal and grading activities. These areas have been affected by erosion and much of this area is covered with plastic sheeting.



LIVE OAK ASSOCIATES, INC.

an Ecological Consulting Firm

LANDS OF BAGNAS SANTA CLARA COUNTY, CALIFORNIA

BIOTIC ASSESSMENT

By:

LIVE OAK ASSOCIATES, INC.

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Melissa Denena, M.S., Director of Ecological Services
Katrina Huck, Assistant Project Manager
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For:

Mr. Manny Bagnas
10692 Carver Drive
Cupertino, CA 95014

April 7, 2011

Project Number: 422-05

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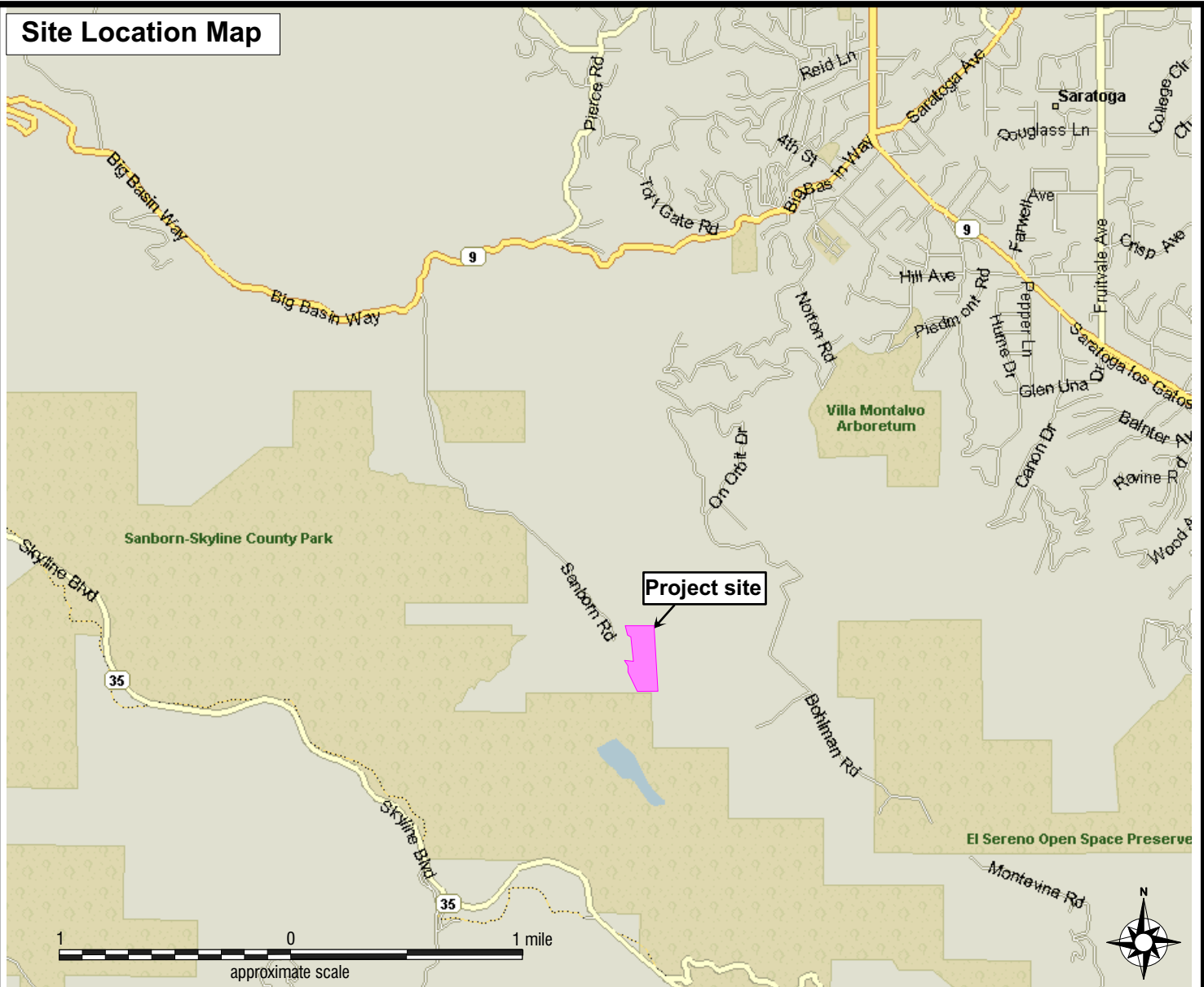
1.0 INTRODUCTION

The technical report that follows describes the biotic resources of a site in western Santa Clara County, California, and evaluates possible affects the proposed project may have on the biotic resources of the site and region. The site is located near the intersection of Sanborn Road and Ambrose Road to the east of Sanborn-Skyline County Park (Figure 1). The location of the site can be found on the Castle Rock Ridge U.S.G.S. 7.5' quadrangle. Chaparral, California bay woodland, mixed woodland, non-native grassland, and ruderal habitats occur on the site.

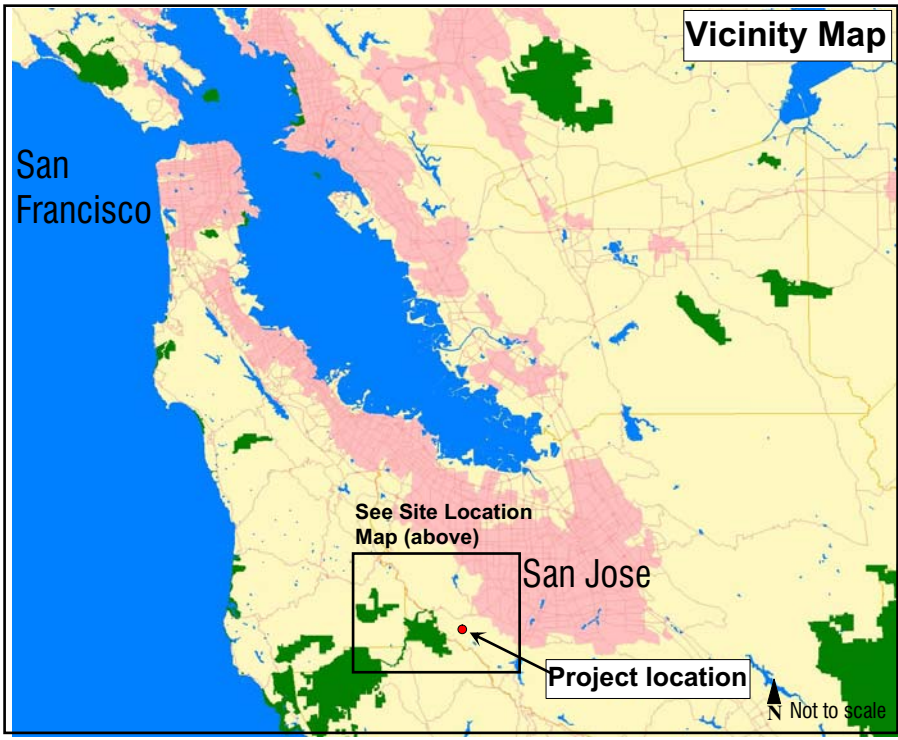
In this report, Live Oak Associates, Inc. (LOA) identifies sensitive biotic resources, significant biotic habitats, regional fish and wildlife movement corridors, and existing local, state and federal natural resource protection policies, ordinances, and laws regulating land use. Provisions of the California Environmental Quality Act (CEQA), the federal Clean Water Act (CWA), the state and federal endangered species acts (FESA and CESA respectively), California Fish and Game Code, and California Water Code could greatly affect project costs, depending on the natural resources present on the parcel. The primary objectives of this report are as follows:

- To summarize all site-specific information related to existing biological resources;
- To make reasonable inferences about the biological resources that could occur onsite based on habitat suitability and the proximity of the site to a species' known range;
- Summarize all state and federal natural resource protection laws that may be relevant to possible future site development;
- Identify and discuss natural resource issues specific to the site that could affect future development;
- Identify avoidance and mitigation measures that could significantly reduce the magnitude of likely biological resource issues associated with site development.

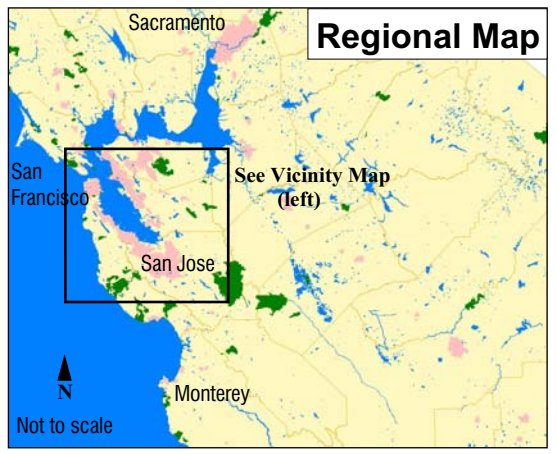
Site Location Map



Vicinity Map



Regional Map



	Live Oak Associates, Inc.		
	Lands of Bagnas Site / Vicinity Map		
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Natural resource issues related to these state and federal laws have been identified in past planning studies conducted in the general project area, and it is reasonable to presume that such issues could be relevant to the subject parcels examined in this report. A number of state and federally listed animals, as well as other special status animal species (i.e., candidate species for listing and California species of special concern), have been documented within 20 miles of the project site. These species include state and/or federally listed species such as the California red-legged frog (*Rana aurora draytonii*), western pond turtle (*Actinemys marmorata*), and foothill yellow-legged frog (*Rana boylei*). This report evaluates the site's suitability for these and other species.

CEQA is also concerned with project impact on riparian habitat, wildlife movement corridors, fish and wildlife habitat, and jurisdictional wetlands, as well as project compliance with special ordinances and state laws protecting regionally sensitive biotic resources, and approved habitat conservation plans. Therefore, this report addresses the relevance of each of these issues to eventual site development.

Sources of information used in the preparation of this analysis included: (1) the California Natural Diversity Data Base (CDFG 2011); (2) the Inventory of Rare and Endangered Vascular Plants of California (CNPS 2011); (3) State and Federally Listed Endangered and Threatened Animals of California (CDFG 2011); (4) numerous planning documents and biological studies for projects in the area, many of which have been prepared by LOA; and (5) manuals and references related to plants and animals of the San Francisco Bay Area. Additional information was gathered during field surveys conducted by LOA ecologists on April 8, 2003 (Dr. Rick Hopkins and Melissa Denena), April 25, 2003 (Ms. Denena), May 6, 2003 (Ms. Denena), June 7, 2003 (Dr. Mark Jennings), August 16, 2006 (Dr. Emma Jack), August 21, 2006 (Dr. Jack), January 28, 2010 (Ms. Denena), March 14, 2011 (Ms. Denena and Katrina Huck), March 21, 2011 (Ms. Huck), and March 28, 2011 (Ms. Huck). During these various surveys, project design changes were evaluated and species specific surveys for amphibians and San Francisco dusky footed woodrats (*Neotoma fuscipes annectens*) were conducted.

The proposed project is the development of two residential lots (4-acre lot and 11-acre lot). The development of the two homes would require the placement of a 12-foot by 40-foot pre-fab steel clear span bridge across the tributary near Ambrose Road. This bridge would be placed immediately south of the existing 10-foot wide wood bridge. The existing bridge will not be removed as part of this project. From the bridge, a primary driveway to the two lots would be improved almost entirely within the footprint of an existing driveway, the trailblazed equipment access road, and an old dirt road on the hillside. A smaller driveway would also be improved to access a neighbor's shed and the tributary along the northern boundary. An 8-inch PVC pipe from the proposed driveway would be connected to a 36-inch existing culvert within the tributary along the northern boundary using a saddle connection. With the exception of minimal encroachment near the clear span bridge and disturbance during the saddle connection to the existing culvert, all proposed disturbance would occur greater than 25 feet from the local tributaries. The 25-foot setback abides by the *Guidelines & Standards for Land Use Near Streams* recommendations, which provides guidance for land use near tributaries and protect water quality and quantity (Santa Clara Valley Water Resources Protection Collaborative, July 2006).

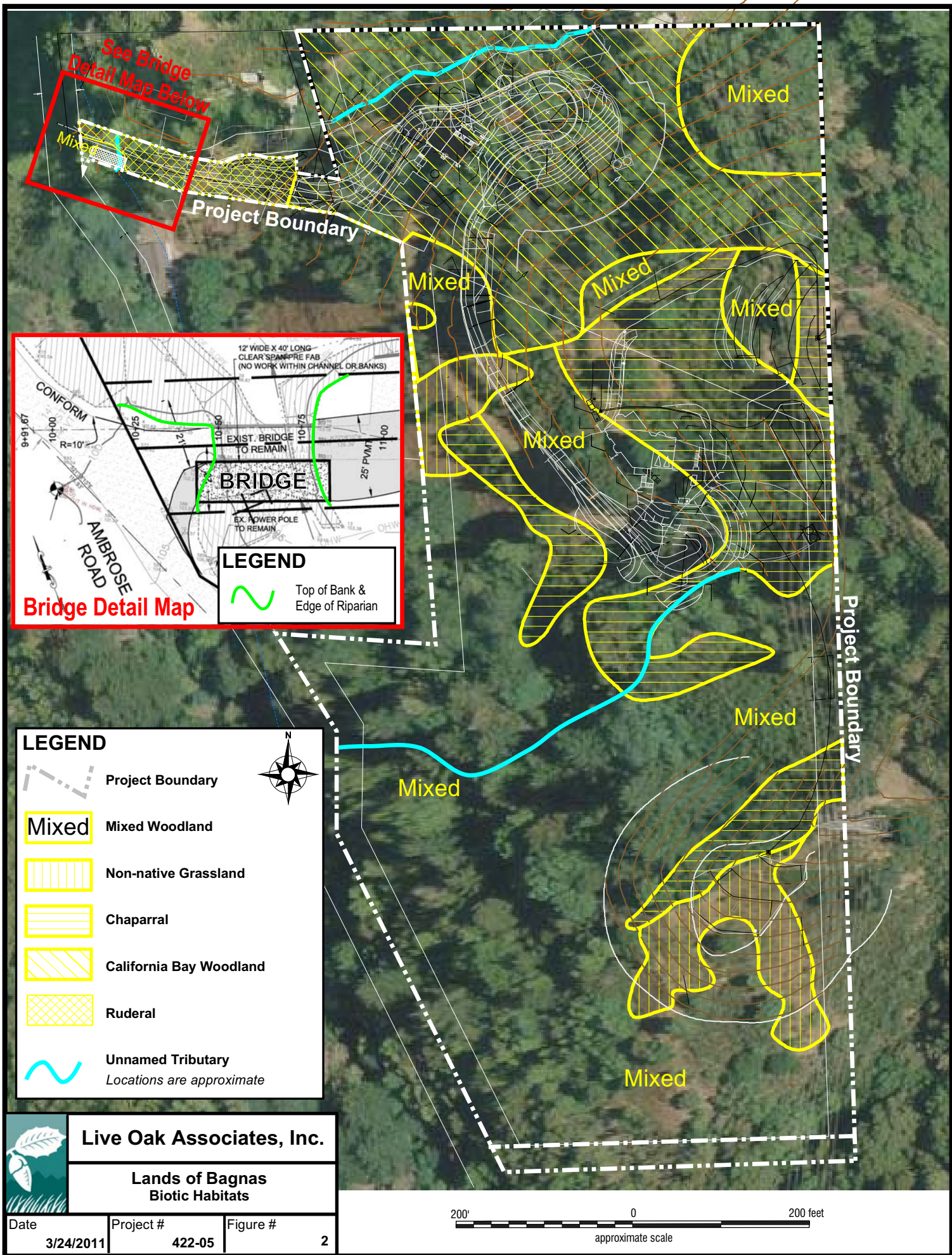
2.0 EXISTING CONDITIONS

The study area is located in western Santa Clara County, California. The western boundary of the study area is Sanborn-Skyline County Park. The remaining boundaries consist of low-density single family homes and open space. Elevations range from approximately 1,400 feet National Geodetic Vertical Datum (NGVD) to 1,900 feet NGVD. Three soil-mapping units, Felton-Ben Lomond complex, 50 to 75 percent slopes, Los Gatos and Maymen soils, 50 to 75 percent slopes, severely eroded, and Maymen rocky fine sandy loam, 50 to 75 percent slopes, eroded have been identified on the site (NRCS 1958). The Felton Series consists of well drained soils having moderately fine textured subsoils and is found near the tributary on the western boundary of the site. The Los Gatos Series consists of well drained soils, having moderately fine textured subsoil. The Maymen Series consists of somewhat excessively drained, medium textured soils. The Los Gatos and Maymen Series make up the soil types on the two parcels. These three soil types are not considered to be hydric, but may have hydric inclusions where drainage is poor.

Annual precipitation in the general vicinity of the study area is about 14 to 25 inches, almost 85% of which falls between the months of October and March. Virtually all precipitation falls in the form of rain. Stormwater runoff readily infiltrates into the soils of the site, but when field capacity has been reached, gravitational water collects in the tributaries of the site that eventual discharge into Saratoga Creek.

2.1 BIOTIC HABITATS

Five biotic habitats were identified on the study area. For purposes of this report, these biotic habitats have been defined as chaparral, California bay woodland, mixed woodland, non-native grassland, and ruderal (Figure 2).



See Bridge Detail Map Below

Project Boundary

Mixed

Mixed

Mixed

Mixed

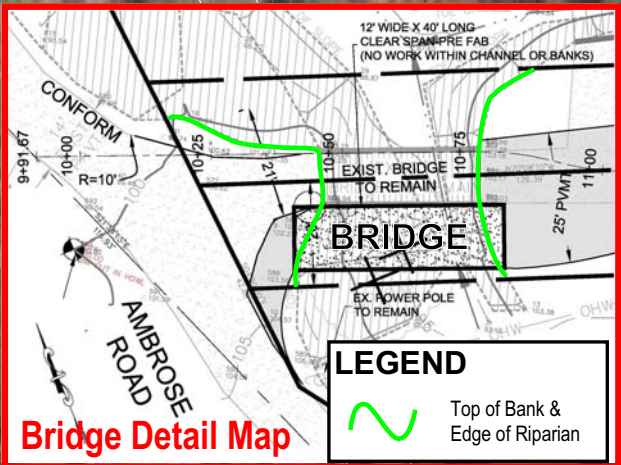
Mixed

Project Boundary

Mixed

Mixed

Mixed



Bridge Detail Map

LEGEND

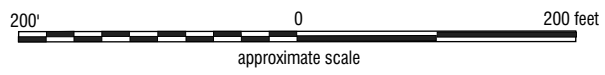
- Project Boundary
- Mixed** Mixed Woodland
- Non-native Grassland
- Chaparral
- California Bay Woodland
- Ruderal
- Unnamed Tributary
Locations are approximate



Live Oak Associates, Inc.

**Lands of Bagnas
Biotic Habitats**

Date	Project #	Figure #
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2.1.1 Chaparral

Chaparral dominated by coyote brush (*Baccharis pilularis*) occurs throughout the central portion of the study site. Other shrub species observed within this habitat included California rose (*Rosa californica*), ceanothus (*Ceanothus* sp.), poison oak (*Toxicodendron diversiloba*), California blackberry (*Rubus ursinus*), yerba santa (*Eriodictyon californicum*), acacia (*Acacia* sp.), mugwort (*Artemisia douglasiana*), manzanita (*Arctostaphylos tomentosa*), sage (*Salvia* sp.), toyon (*Heteromeles arbutifolia*), scrub oak (*Quercus berberidifolia*), honeysuckle (*Lonicera* sp.), chamise (*Adenostoma fasciculatum*). The herbaceous layer included species such as soft chess (*Bromus hordaceus*), ripgut (*Bromus diandrus*), California buttercup (*Ranunculus californicus*), milk thistle (*Silybum marianum*), scarlet pimpernel (*Anagallis arvensis*), miniature lupine (*Lupinus bicolor*), iris (*Iris* sp.), western houndstongue (*Cynoglossum grande*), deer weed (*Lotus* sp.), and California man-root (*Marah fabaceus*). A few California bays (*Umbellularia californica*), bigleaf maples (*Acer macrophyllum*), coast live oaks (*Quercus agrifolia*), madrone (*Arbutus menziesii*), and California buckeyes (*Aesculus californica*) were scattered throughout the chaparral.

Avian species expected to occur in this habitat include western scrub jay (*Aphelocoma californica*), California quail (*Callipepla californica*), golden-crowned sparrow (*Zonotrichia atricapilla*), white-crowned sparrow (*Zonotrichia leucophrys*), bushtit (*Psaltriparus minimus*), and Anna's hummingbird (*Calypte anna*). Mammals expected to utilize this habitat include the brush rabbit (*Sylvilagus bachmani*), striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), gray fox (*Urocyon cinereoargenteus*), bobcat (*Lynx rufus*), black-tailed deer (*Odocoileus hemionus columbianus*), and coyote (*Canis latrans*).

2.1.2 California Bay Woodland

California bay woodland was found in the northeastern portion of the study area. This habitat was dominated by California bays, along with madrones, tanoaks (*Lithocarpus densiflora*), Douglas firs (*Pseudotsuga menziesii*), bigleaf maples, and coast live oaks. The understory was primarily bare ground or leaf litter, but a few species were observed.

These included California rose, California blackberry, poison oak, California hazelnut (*Corylus cornuta* var. *californica*), polypody (*Polypodium* sp.), California wood fern (*Dryopteris arguta*), and bedstraw (*Galium aparine*).

Thick leaf litter and decaying logs provide a moist microclimate suitable for amphibians such as the California newt (*Taricha torosa*), ensatina (*Ensatina eschscholtzi*), arboreal salamander (*Aneides lugubris*), California slender salamander (*Batrachoseps attenuatus*), western fence lizard (*Sceloporus occidentalis*), southern alligator lizard (*Gerrhonotus multicarinatus*), and western toad (*Bufo boreas*).

Birds such as black phoebes (*Sayornis nigricans*), ash-throated flycatchers (*Myiarchus cinerascens*), and various species of swallows frequent these areas, especially when insects are abundant. Resident species include the northern flicker (*Colaptes auratus*), oak-titmouse (*Baeolophus inornatus*), American robin (*Turdus migratorius*), Stellar's jay (*Cyanocitta stellari*), northern flicker (*Colaptes auratus*), chestnut-backed chickadee (*Parus rufescens*), and spotted towhee (*Pipilo maculatus*). Winter migrants would include Townsend's and yellow-rumped warblers (*Dendroica townsendi* and *D. coronata* respectively) and ruby-crowned kinglets (*Regulus calendula*). Summer migrants breeding here could include orange-crowned warblers (*Vermivora celata*), black-headed grosbeaks (*Pheucticus melanocephalus*) and warbling vireos (*Vireo gilvus*).

Mammals expected to frequent the area would be species from adjacent habitats as transients. The open understory of the dominantly California bay woodland does not provide a great deal of cover for mammals, limiting their utilization. One commonly found species may be the California mouse (*Peromyscus californicus*) which will frequently feed on seeds of the California bay laurel. Raccoons, bobcats, black-tailed deer, and coyotes may also use this habitat.

2.1.3 Mixed Woodland

Mixed woodland habitat was associated with the banks of the creek running along the northern boundary and by the bridge crossing of the creek in the northwest corner. This

habitat also made up a portion of the southern boundary along the drainage and associated slopes. Typical tree species found in this biotic habitat included California buckeye, bigleaf maple, madrone, coast live oak, Douglas fir, tanoak, California bay, and white alder (*Alnus rhombifolia*). Shrubs included ceanothus, coyote brush, poison oak, California blackberry, hazelnut, mugwort, common snowberry (*Symphoricarpos albus*), and elderberry (*Sambucus* sp.). Other species observed included bedstraw, polypody, California wood fern, apple mint (*Mentha suaveolens*), blood currant (*Ribes sanguineum* var. *glutinsum*), western white clematis (*Clematis ligusticifolia*), periwinkle (*Vinca major*), and miner's lettuce (*Montia perfoliata*).

The structural diversity of the riparian habitat and the proximity to a number of other habitat types are the primary reasons why the species richness and diversity of wildlife is relatively high in this area of the study site. Similar amphibian, reptile, and bird species would be found in this habitat as those found in the California bay woodland.

Availability of understory cover and the abundance of food sources due to the diversity of vegetation enable a number of mammalian species to utilize this habitat. All species found in the mixed woodland and chaparral are expected to frequent this woodland. Other constituent mammals of the mixed riparian woodland include western gray squirrel (*Sciurus griseus*).

2.1.4 Non-Native Grassland

The vegetation in the non-native grassland was dominated by grasses and forbs of European origin. Grasses common to this habitat include ripgut, soft chess, wild oats (*Avena barbata*), and barnyard barley (*Hordeum murinum*). Yerba santa is a woody species that is found in this habitat. Common forbs included red-stemmed filaree (*Erodium cicutarium*), California poppy (*Eschscholzia californica*), geranium (*Geranium dissectum*), common vetch (*Vicia sativa*), bur chervil (*Anthriscus caucalis*), pineappleweed (*Matricaria matricarioides*), common sow thistle (*Sonchus oleraceus*), rose clover (*Trifolium hirtum*), lupine (*Lupinus* sp.), fiddleneck (*Amsinkia* sp.), and bedstraw.

Non-native grasslands provides important habitat to many terrestrial vertebrates. The study area provides suitable habitat for many of these species. Some of these species are grassland residents. A good many more use a variety of other habitats as well. Some are migrants which use the grasslands of the study area for only a portion of each year.

The grasslands of the study area are used by several species of reptiles and amphibians. Western fence lizards (*Sceloporus occidentalis*), western rattlesnakes (*Crotalus viridis*), and gopher snakes (*Pituophis melanoleucus*) are expected to forage in the grasslands on site.

Resident and migratory birds also occur here. Resident birds include the western meadowlark (*Sturnella neglecta*) and the mourning dove (*Zeniada macroura*). Winter migrants include American pipits (*Anthus rubescens*) and savannah sparrows (*Passerculus sandwichensis*). A variety of raptors are attracted to this habitat by an abundance of invertebrates and small reptiles, birds and mammals.

Small mammals appeared to be common to grasslands habitats. Botta's pocket gophers (*Thomomys bottae*), California voles (*Microtus californicus*), western harvest mice (*Reithrodontomys megalotis*), and ornate shrews (*Sorex ornatus*) are likely residents. These small mammals attract a variety of predators, including various snakes and raptors as previously discussed, but also mammals. Bobcats, coyotes, gray fox, red foxes (*Vulpes vulpes*), and badgers (*Taxidea taxus*) are known to occur in the region and some or all of these species may be found in the study area. Black-tailed deer may be found in this habitat as well.

2.1.5 Ruderal

Ruderal habitat consists of disturbed land with very little species diversity and was found along the proposed road from the bridge off of Ambrose Road to the two parcels. The term "ruderal" refers to areas which are periodically disturbed by anthropogenic influences. This habitat was a dirt road that accessed the two properties adjacent to the project site. Vegetation was sparse to absent due to the continued influence from

residential vehicles. A few plants from the adjacent habitats may be present at a given time.

Disturbed land provides very little habitat for terrestrial vertebrates. Occasional visitors may include the rock dove (*Columba livia*), house finch (*Carpodacus mexicanus*), and Brewer's blackbird (*Euphagus cyanocephalus*). Small mammals that may pass through ruderal habitat include deer mouse (*Peromyscus maniculatus*), California vole, and Botta's pocket gopher. These species are somewhat limited by compacted soils and sparse vegetation. Portions of the site with little vegetation are probably visited by feral and household cats (*Felis catus*) and domestic dogs (*Canis familiaris*).

2.2 SPECIAL STATUS PLANTS AND ANIMALS

Several species of plants and animals within the state of California have low populations, limited distributions, or both. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Section 3.2 state and federal laws have provided the California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as threatened or endangered under state and federal endangered species legislation. Others have been designated as "candidates" for such listing. Still others have been designated as "species of special concern" by the CDFG. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened or endangered (CNPS 2011). Collectively, these plants and animals are referred to as "special status species."

A number of special status plants and animals occur in the vicinity of the study area. These species, and their potential to occur in the study area, are listed in Table 2 on the following pages. Sources of information for this table included *California's Wildlife, Volumes I, II, and III* (Zeiner et. al 1988-1990), *California Natural Diversity Data Base*

(CDFG 2011), *Endangered and Threatened Wildlife and Plants* (USFWS 2011), *Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants* (CDFG 2011), and *The California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2011). This information was used to evaluate the potential for special-status plant and animal species that occur on site. Figure 3 shows the location of special status species found by the California Natural Diversity Data Base (CNDDDB). It is important to note that CNDDDB is a volunteer database and therefore, it may not contain all known or gray literature records.

A search of published accounts for all of the relevant special-status plant and animal species was conducted for the Castle Rock Ridge U.S.G.S 7.5 minute quadrangle in which the project site occurs, and for surrounding quadrangles (Mindego Hill, Cupertino, San Jose West, Los Gatos, Laurel, Felton, Davenport, and Big Basin) using the California Natural Diversity Data Base Rarefind 2011. All species listed as occurring in these quadrangles on CNPS Lists 1A, 1B, 2, or 4 were also reviewed.

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (adapted from CDFG 2011 and CNPS 2011)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence in the Study Area
Ben Lomond Spineflower (<i>Chorizanthe pungens</i> ssp. <i>hartwegiana</i>)	FE, CNPS 1B	Occurs in coastal scrub associated with ponderosa pines. Endemic to the sandhill parkland communities in the Santa Cruz Mountains, elevation 90-610 meters.	Absent. Suitable habitat is lacking from the site. This species is known from only one extended population in Scott's Valley.
Robust Spineflower (<i>Chorizanthe robusta</i> var. <i>robusta</i>)	FE, CNPS 1B	Occurs in openings of cismontane woodlands, coastal dunes and coastal scrub, elevation 3-300 meters.	Absent. Suitable habitat is lacking on site. The site is above 300 meters. There are only two known populations from the 1880's on the east side of the Santa Cruz Mountains.
Santa Cruz Cypress (<i>Cupressus abramsiana</i>)	FE, CE	Occurs in closed-cone coniferous forests, chaparral, cismontane woodlands, and pinyon and juniper woodlands, elevation 720-1830 meters.	Absent. Suitable soils do not occur on the study area. The site is below 720 meters and there are no known from the east side of the Santa Cruz mountains.
Santa Clara Valley Dudleya (<i>Dudleya setchellii</i>)	FE, CNPS 1B	Occurs in cismontane woodland and valley and foothill grasslands of serpentine soils in Santa Clara Valley, elevation 60-365 meters.	Absent. Soils of the study area are not serpentine and site is above 365 meters.

Other special status plants listed by CNPS

Species	Status	Habitat	*Occurrence in the Study Area
Dudley's Lousewort (<i>Pedicularis dudleyi</i>)	CR, CNPS 1B	Occurs in cismontane woodlands, North Coast coniferous forest, and valley and foothill grasslands, elevation 60-900 meters.	Unlikely. Suitable habitat occurs on the study site, but there are fewer than ten known occurrences, none of which occurred in Santa Clara County. Blooms April through June.
Santa Cruz Manzanita (<i>Arctostaphylos andersonii</i>)	CNPS 1B	Occurs in broadleaved upland forests, chaparral, and openings and edges of North Coast coniferous forests in the Santa Cruz Mountains, elevation 60-700 meters.	Unlikely. Suitable habitat occurs on the study site, but there are fewer than fifteen known occurrences in the Santa Cruz Mountains. None were observed during the field visits. Blooms November through April.
Schreiber's Manzanita (<i>Arctostaphylos glutinosa</i>)	CNPS 1B	Occurs in mudstone or diatomaceous shale outcrops and closed-cone coniferous forests, elevation 170-685 meters.	Absent. Suitable soils and habitat do not occur on the study area. Known from fewer than ten occurrences. None were observed during the field visits.
Pajaro Manzanita (<i>Arctostaphylos pajaroensis</i>)	CNPS 1B	Occurs in sandy soils in openings of chaparral in the Pajaro Hills area, elevation 30-760 meters.	Absent. Soils of the study area are not sandy. None observed during the field visits.

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY*Other special status plants listed by CNPS (cont.)*

Species	Status	Habitat	*Occurrence in the Study Area
Bonny Doon Manzanita (<i>Arctostaphylos silvicola</i>)	CNPS 1B	Occurs in inland marine sands of lower montane coniferous forests, chaparral, and closed-cone coniferous forests, elevation 120-600 meters.	Absent. Suitable soils and habitat do not occur on the study area. Known from fewer than twenty occurrences. None were observed during the field visits.
Hairless Popcorn Flower (<i>Plagiobothrys glaber</i>)	CNPS 1A	Occurs in alkaline meadows and coastal salt marshes and swamps, elevation 12-180 meters.	Absent. Suitable habitat does not occur on the study area, and the site is located above 180 meters. This species has not been documented in the vicinity since 1954.
Fragrant Fritillary (<i>Fritillaria liliacea</i>)	CNPS 1B	Occurs in cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grasslands and is often associated with serpentine soils, elevation 3-410 meters.	Absent. Serpentine soils do not occur on the study area.
Ben Lomond Buckwheat (<i>Eriogonum nudum</i> ssp. <i>decurrens</i>)	CNPS 1B	Occurs in ponderosa pine sandhills, chaparral, and cismontane woodlands in sandy soil, elevation 50-800 meters.	Absent. Suitable soils and habitat are absent from the study area.
Robust Monardella (<i>Monardella villosa</i> ssp. <i>globosa</i>)	CNPS 1B	Occurs in cismontane woodlands and openings of chaparral, elevation 185-600 meters.	Unlikely. Limited habitat on site, although none of the ten documented occurrences have occurred in Santa Clara County. This species has not been seen recently. Blooms June through July.
Metcalf Canyon Jewelflower (<i>Streptanthus albidus</i> ssp. <i>albidus</i>)	FSC, CNPS 1B	Occurs in valley and foothill grasslands in serpentine soils, elevation 45-800 meters.	Absent. Serpentine soils do not occur on the study area. Known from approximately ten occurrences.
Smooth Lessingia (<i>Lessingia micradenia</i> ssp. <i>glabrata</i>)	FSC, CNPS 1B	Occurs in cismontane woodlands and chaparral of serpentine soils, elevation 120-420 meters.	Absent. Soils of the study area are not serpentine.
Mount Hamilton Thistle (<i>Cirsium fontinale</i> ssp. <i>campylon</i>)	CNPS 1B	Occurs in cismontane woodlands, valley and foothill grasslands, chaparral with serpentine seeps, elevation 100-890 meters.	Absent. Serpentine soils do not occur on the study area.
Western Leatherwood (<i>Dirca occidentalis</i>)	CNPS 1B	Occurs in broadleaved upland forest, closed cone conifer forest, North Coast coniferous forest, cismontane woodlands, chaparral, and riparian woodlands, elevation 50-395 meters.	Absent. Suitable habitat does not occur on site because the project is located above 395 meters. None were observed during the field visits.

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY*Other special status plants listed by CNPS (cont.)*

Species	Status	Habitat	*Occurrence in the Study Area
Most Beautiful Jewelflower (<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>)	FSC, CNPS 1B	Occurs in cismontane woodlands, chaparral, and valley and foothill grasslands in serpentine soils, elevation 120-1000 meters.	Absent. Serpentine soils do not occur on the study area.
Santa Cruz Microseris (<i>Stebbinsoseris decipiens</i>)	CNPS 1B	Occurs in open areas in broadleaved upland and closed-cone coniferous forests, coastal prairie and scrub, chaparral, and grasslands, elevation 10-500 meters.	Absent. The site is not on seaward slopes. There are fewer than twenty documented occurrences all of which occurred in Monterey, Marin, and Santa Cruz Counties.
Hall's Bush Mallow (<i>Malacothamnus hallii</i>)	CNPS 1B	Occurs in coastal scrub and chaparral, elevation 10-760 meters.	Absent. Suitable habitat is lacking from site. None were observed during the field visits.
Caper-fruited Tropicocarpum (<i>Tropicocarpum capparideum</i>)	CNPS 1A	Occurs in alkaline soils in valley and foothill grasslands, elevation 1-455 meters.	Absent. Suitable habitat in the form of alkaline flats does not occur on the study area. Last seen in 1957.
Santa Cruz Mountains Beardtongue (<i>Penstemon rattanii</i> ssp. <i>kleei</i>)	CNPS 1B	Occurs in lower montane and North Coast coniferous forests and chaparral, elevation 400-1100 meters.	Unlikely. Marginal habitat occurs on the site. There are fewer than ten documented occurrences. Blooms May through June.

ANIMALS (adapted from CNFG 2011 and USFWS 2011)*Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act*

Species	Status	Habitat	*Occurrence in the Study Area
Steelhead (<i>Oncorhynchus mykiss</i>)	FT	Migrate up fresh water rivers or streams in the spring and spend the remainder of the time in the ocean.	Absent. The Saratoga Creek tributaries near the site are full of resident trout, but steelhead have not been observed in the streams. There are at least two major drop structures between the ocean and the project site inhibiting access to the site by this species. The streams also dry up early, limiting the likelihood of adults and young being present.
California Red-legged Frog (<i>Rana aurora draytonii</i>)	FT, CSC	Rivers, creeks and stock ponds of the Sierra foothills and coast range, preferring pools with overhanging vegetation.	Possible. Suitable habitat is available for this species in the tributaries of the site. A few small ponds were also found in the tributary on the western boundary. There are two documented occurrences within three miles northeast of the site.

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY*Federal Candidate Species and State Species of Special Concern (cont.)*

Species	Status	Habitat	*Occurrence in the Study Area
Foothill Yellow-legged Frog (<i>Rana boylei</i>)	CSC	Found primarily in swiftly flowing creeks.	Possible. The tributaries of the site are flowing creeks with cobbled substrate providing habitat for this species. There are two documented occurrences within three miles, one of which was in 1953 in Saratoga Creek at the beginning of Sanborn Road.
California Tiger Salamander (<i>Ambystoma californiense</i>)	FC, CSC	Vernal pools and stock ponds of central California.	Absent. No suitable breeding habitat occurs on or adjacent to the site.
Western Pond Turtle (<i>Actinemys marmorata</i>)	CSC	Open slow-moving water of rivers and creeks of central California with rocks and logs for basking.	Possible. Suitable habitat is available for this species in the tributaries of the site. There is one documented occurrence within three miles of the site, within half a mile of the site. There were also two turtles observed within a mile of the site (Kucker, <i>pers. comm.</i>).
White-tailed Kite (<i>Elanus caeruleus</i>)	CP	Open grasslands and agricultural areas throughout central California.	Unlikely. Marginal foraging habitat exists on site, but this species prefers more open habitats. Not expected to nest on the site.
Northern Harrier (<i>Circus cyaneus</i>)	CSC	Frequents meadows, grasslands, open rangelands, freshwater emergent wetlands; uncommon in wooded habitats.	Absent. The site lacks suitable foraging and breeding habitat due to the heavily wooded nature of the site.
Golden Eagle (<i>Aquila chrysaetos</i>)	CP	Typically frequents rolling foothills, mountain areas, sage-juniper flats and desert.	Unlikely. The site provides limited breeding habitat (in the taller trees) and no foraging habitat due to the dense structure of the tree canopy. No open areas for hunting.
Burrowing Owl (<i>Athene cunicularia</i>)	CSC	Found in open, dry grasslands, deserts and ruderal areas. Requires suitable burrows. This species is often associated with California ground squirrels.	Absent. The site is primarily wooded and does not support suitable open habitat for this species. None have been observed within the vicinity of the site.
Loggerhead Shrike (<i>Lanius ludovicianus</i>)	CSC	Nests in tall shrubs and dense trees, forages in grasslands, marshes, and ruderal habitats.	Possible. Suitable breeding habitat occurs on site.
California Yellow Warbler (<i>Dendroica petechia brewsteri</i>)	CSC	Migrants move through many habitats of Sierra and its foothills. This species breeds in riparian thickets of alder, willow and cottonwoods.	Possible. Migrants may pass through the site during the spring and fall.

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

Federal Candidate Species and State Species of Special Concern (cont.)

Species	Status	Habitat	*Occurrence in the Study Area
Tricolored Blackbird (<i>Agelaius tricolor</i>)	CSC	Breeds near fresh water in dense emergent vegetation.	Absent. No suitable occurs on site.
Black Swift (<i>Cypseloides niger</i>)	CSC	Migrants and transients found throughout many habitats of state.	Possible. Migrants and transients may forage on the site during migration. Breeding habitat is absent.
Vaux's Swift (<i>Chaetura vauxi</i>)	CSC	Migrants and transients move through the foothills of the western Sierra in spring and late summer. Some individuals breed in region.	Possible. Migrants and transients may forage on the site during migration. Breeding habitat is absent.
Townsend's Big-eared Bat (<i>Plecotus townsendii townsendii</i>)	CSC	Primarily a cave-dwelling bat that may also roost in buildings. Occurs in a variety of habitats of the state.	Possible. Suitable foraging habitat is present on the study area but limited roosting habitat.
California Mastiff Bat (<i>Eumops perotis californicus</i>)	CSC	Forages over many habitats, requires tall cliffs or buildings for roosting.	Possible. Suitable foraging habitat is present on the study area but limited roosting habitat.
Pallid Bat (<i>Antrozous pallidus</i>)	CSC	Grasslands, chaparral, woodlands, and forests of California; most common in dry rocky open areas providing roosting opportunities.	Possible. The site does not provide suitable roosting habitat, but the species may forage over the undisturbed portions of the site.
San Francisco Dusky-footed Woodrat (<i>Neotoma fuscipes annectens</i>)	CSC	Found in hardwood forests, oak riparian and shrub habitats.	Present. Suitable habitat occurs onsite for this species. A single nest was observed in 2006 near the proposed development. During the 2011 surveys, this nest was not active and a new nest was observed near the southern most leachfield.
Ringtail (<i>Bassariscus astutus</i>)	CP	Occurs in riparian and heavily wooded habitats near water.	Possible. Is expected to occur within the heavily wooded areas on the eastern slopes of the Santa Cruz Range. Suitable forage habitat and roost sites occur on site.

Present: Species observed on the sites at time of field surveys or during recent past.

Possible: Species not observed on the sites, but it could occur there from time to time.

Unlikely: Species not observed on the sites, and would not be expected to occur there except, perhaps, as a transient

Absent: Species not observed on the sites, and precluded from occurring there because habitat requirements not met.

STATUS CODES

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CT	California Threatened
FPE	Federally Endangered (Proposed)	CR	California Rare
FC	Federal Candidate	CP	California Protected
		CSC	California Species of Special Concern

CNPS California Native Plant Society Listing

1A Plants Presumed Extinct in California

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

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

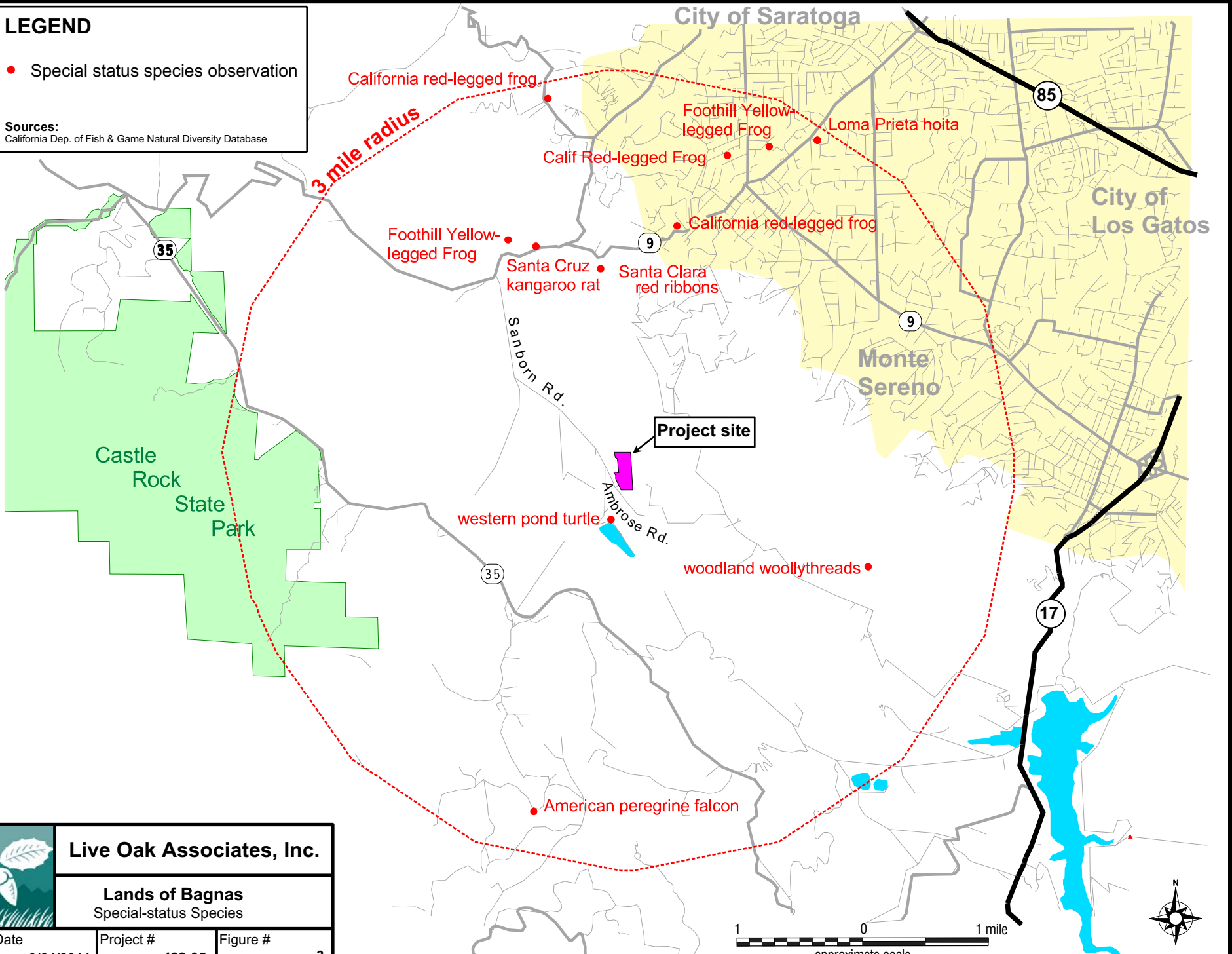
3 Plants about which we need more information – a review list

4 Plants of limited distribution – a watch list

LEGEND

- Special status species observation

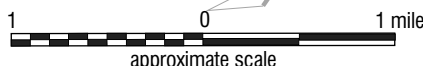
Sources:
California Dep. of Fish & Game Natural Diversity Database



Live Oak Associates, Inc.

Lands of Bagnas
Special-status Species

Date	Project #	Figure #
3/24/2011	422-05	3



2.3 THREATENED, ENDANGERED OR SPECIAL STATUS PLANTS AND ANIMALS THAT DESERVE FURTHER DISCUSSION

Most of the special status plant and animal species listed in Table 2 are either absent or may occur rarely or occasionally on site and sufficient information exists to evaluate the potential impacts the project may or may not have on them. A few of the species that have the potential to occur on site or are considered regionally sensitive required additional survey effort to conduct a more informed impact assessment. These include the California red-legged frog, western pond turtle, and foothill yellow-legged frog. A habitat assessment and a search of historic records were conducted to establish the likely presence or absence on the site for these species. Below are detailed discussions that include an analysis of their legal status, ecology, and the suitability of the site to support them.

2.3.1 California Red-Legged Frog (*Rana aurora draytonii*). Federal listing status: Threatened; State listing status: None.

On May 23, 1996 the California red-legged frog was listed as Threatened by the U.S. Fish and Wildlife Service under the authority of the Federal Endangered Species Act. The frog was listed because it had been extirpated from 70 percent of its historic range and remaining populations are currently threatened by a wide variety of human impacts (66 FR 14626). On March 17, 2010, the USFWS revised the designation of Critical Habitat for the California red-legged frog for a final ruling affective April 16, 2010.

The California red-legged frog is the largest native frog in California with adults attaining a length of 3.4-5.4 inches (85-138 mm) snout-to-vent length (SVL) (Jennings and Hayes 1994). On the dorsal surface, the background color varies from brown to gray to reddish-brown, normally with some dark mottling peppered around spots with light-colored centers (Stebbins 1985). The distribution of reddish pigment is highly variable, but is usually restricted to the groin and undersurfaces of the thighs, legs, and feet (Jennings and Hayes 1994). This red coloration is not diagnostic for species identification. Two distinctive, prominent folds of skin (“dorsolateral folds”), run in a

complete line from the rear of the eyes to the groin. The groin has a distinctly mottled pattern of black on a light-colored background. Juvenile frogs range from 1.5-3.4 inches (40-84 mm) SVL and have the same coloration as adults except that the dorsolateral folds are normally yellow or orange colored (Stebbins 1985). This coloration is distinct even at a distance. Larval frogs range from 0.6-3.1 inches (14-80 mm) SVL.

Life History And Ecology. Adult California red-legged frogs have been observed breeding from late November through early May after the onset of warm rains (Storer 1925, Jennings and Hayes 1994). Male frogs typically attract females by emitting low short calls in small mobile groups of 3-7 individuals (Jennings and Hayes 1994). Females move toward the calling groups and amplex a male. Following amplexus, the females move to chosen oviposition sites where they attach an egg mass of 2,000-6,000 moderate-sized (2.0-2.8 mm diameter) eggs to an emergent vegetation brace such as tule stalks, grasses, or willow roots located just below the water surface (Storer 1925, Livezey and Wright 1947). Once laid, the egg mass will swell with water for about 24 hours, finally reaching the size of a softball. Males usually remain at the breeding sites for several weeks after reproduction before moving to foraging habitats, while females immediately remove to foraging habitats.

California red-legged frog embryos hatch about 6-14 days following fertilization. The resulting larvae (8.8-10.3 mm) require 14-28 weeks to reach metamorphosis, which usually occurs between July and September, although there are scattered observations of overwintering larvae in perennial ponds such as at the arboretum at Golden Gate Park in San Francisco (Jennings, pers. obs.). Tadpoles generally metamorphose at 65-85 mm total length (Storer 1925) and the newly emerged juvenile frogs are generally 25-30 mm SVL. Larvae are thought to graze on algae, but they are rarely observed in the field because they spend most of their time concealed in submergent vegetation, algal mats or detritus (Jennings and Hayes 1994). Post-metamorphic frogs grow rapidly feeding on a wide variety of invertebrates.

Males typically reach sexual maturity at 2 years and females at 3 years; however, frogs of both sexes may reach sexual maturity in a single year if resources are sufficient

(Jennings, pers. obs.). Conversely, frogs may take 3-4 years to reach maturity during extended periods of drought (Jennings and Hayes 1994). Based on limited field data, California red-legged frogs appear to live up to 10 years in the wild (Jennings, pers. obs.). Adult frogs apparently eat a wide variety of animal prey including invertebrates, small fishes, frogs, and small mammals.

California red-legged frogs have been observed in a number of aquatic and terrestrial habitats throughout their historic range. Larvae, juveniles, and adult frogs have been collected from natural lagoons, dune ponds, pools in or next to streams, streams, marshlands, sag ponds, and springs, as well as human-created stockponds, secondary and tertiary sewage treatment ponds, wells, canals, golf course ponds, irrigation ponds, sand and gravel pits (containing water), and large reservoirs (Jennings 1988). The key to the presence of frogs in these habitats is the presence of perennial (or near perennial) water and the general lack of introduced aquatic predators such as largemouth bass (*Micropterus salmoides*), green sunfish (*Lepomis cyanellus*), and bluegill (*L. macrochirus*), crayfish (*Pacifastacus leniusculus* and *Procambarus clarkii*), and bullfrogs (*Rana catesbeiana*). The habitats observed to contain the largest densities of red-legged frogs are associated with deep-water pools (27 inches [>0.7 meters] deep) with stands of overhanging willows (*Salix* spp.) and an intermixed fringe of cattails (*Typha latifolia*), tules (*Scirpus* spp.), or sedges (*Carex* sp.) (Hayes and Jennings 1988). However, California red-legged frogs have also been observed to inhabit stock ponds, sewage treatment ponds, and artificial (=concrete) pools completely devoid of vegetation (Storer 1925; Jennings, pers. obs.). Continued survival of frogs in all aquatic habitats seems to be based on the continued presence of ponds, springs, or pools that are disjunct from perennial streams. Such habitats provide the continued basis for successful reproduction and recruitment year after year into nearby drainages that may lose frog populations due to stochastic events such as extreme flooding or droughts. Juvenile frogs are often observed sunning themselves during the day in the warm, surface-water layer associated with floating and submerged vegetation (Hayes and Tennant 1986). Adult frogs are largely nocturnal and are known to sit on stream banks or on the low hanging limbs of willow trees over pools of water where they can detect small mammal prey (Hayes and

Tennant 1986, Jennings and Hayes 1994). Radio tracking studies conducted in lagoons and the lower portions of streams along the Central Coast of California show that adult red-legged frogs will move within the riparian zone from well-vegetated areas to pools of water to hydrate during periods of time when many of the Central Coast streams are dry except for isolated pools (Rathbun et al. 1993). During wet periods (especially in the winter and early spring months), red-legged frogs can move long distances (e.g., 1 mile) between aquatic habitats, often over areas that are considered to be unsuitable for frogs (e.g., roads, open fields, croplands, etc.). Such activities can result in frogs ending up in isolated aquatic habitats well away from the nearest known frog populations.

Potential To Occur On-Site. California red-legged frogs have been documented by the CNDDDB twice within a three mile radius of the study area (Figure 3). The site is located in the middle of the San Andreas Rift Zone; hence, sag ponds have been present throughout the years. Such natural ponded areas have provided habitat for this species in the past and the present. No individuals were observed during the field surveys, but it is believed that this species is present in the tributaries of the site.

2.3.2 Foothill Yellow-Legged Frog (*Rana boylei*). Federal listing status: None; State listing status: Species of Special Concern.

The foothill yellow-legged frog is considered Endangered in central and southern California south of the Salinas River, Monterey County; Threatened in the west slope drainages of the Sierra Nevada and southern Cascade Mountains east of the Sacramento-San Joaquin River axis; and a “Special of Special Concern” in the Coast Ranges north of the Salinas River by the California Department of Fish and Game.

The foothill yellow-legged frog is a moderate-sized frog, with adults attaining a length of 37.2-82.0 mm SUL (Jennings and Hayes 1994). The dorsum is highly variable, but usually dark to light gray, brown, green, or yellow with a somewhat mottled appearance--often with considerable amounts of brick or reddish pigment, and rough, tubercled skin (Zweifel 1955). A light band is present between the eyelids that often appears as a pale triangle between the eyelids and the nose (Stebbins 1985). Undersurfaces of the legs and

lower belly are yellow or orangish-yellow, the latter color usually present on the largest individuals (Jennings and Hayes 1994). The iris is silvery gray with a horizontal, black countershading stripe (Jennings, pers. obs.). Larvae, range in length from 8-56 mm TL and have up to 6-7 upper and 6 lower tooth rows (Stebbins 1985). Newly hatched tadpoles are generally blackish in color, gradually changing to an olive background color with darker marbling and spots after a week or two of growth (Stebbins 1951, Storer 1925)

Life History And Ecology. Historically, the foothill yellow-legged frog was found from the Santiam River system in Oregon (Mehama, Marion County), to the San Gabriel River system (Los Angeles County) in California (Zweifel 1955). This species has now been observed in a number of stream and terrestrial habitats throughout their historic range (Hayes and Jennings 1988, Jennings 1988). Streams utilized by frogs can be perennial or intermittent (Hayes and Jennings 1988, Kupferberg 1996a), but for the latter condition, a permanent watercourse must be either immediately up- or down-stream, or in the nearby general area (Jennings, pers. obs.). The streams most likely to harbor this species in California are small- to moderate-sized, open, low gradient, watercourse with a least some cobble-sized substrate and a good percentage of the stream area in riffles (Storer 1925, Fitch 1936, Zweifel 1955, Hayes and Jennings 1988, Kupferberg 1996a). This frog is infrequent or absent in habitats where introduced aquatic predators such as green sunfish and bullfrogs are present (Hayes and Jennings 1988, Kupferberg 1993, 1996b), probably because their larval stages are susceptible to such predators.

Available data indicate complex genetic variation within this species, but data are difficult to interpret because of some lumping of nearby populations (Case 1978), and too few samples to identify any geographic patterns to genetic variation (Jennings and Hayes 1994). However, with the extinction of the individual populations, a complete genetic analysis of the group may no longer be possible.

Potential To Occur On-Site. Foothill yellow-legged frogs probably inhabited the tributaries of the site in the past, but now appear to be extinct in this part of Santa Clara County. There are two CNDDDB documented occurrences of this species within three

miles of the site. One was in 1953 for a frog observed in Saratoga Creek near the beginning of Sanborn Road. No foothill yellow-legged frogs have been observed in the waterways in the vicinity of the project within the past 15 years. Although, suitable habitat is present for this species and it can not be ruled out that the frog is absent from the site.

**2.3.3 Western Pond Turtle (*Actinemys marmorata*). Federal listing status: None;
State listing status: Species of Special Concern.**

In 1992, based on concerns about widespread population declines due to the extensive loss of habitat, overexploitation, and introductions of non-native aquatic predators (57 FR 4561, Jennings and Hayes 1994), USFWS was petitioned to list the western pond turtle as an endangered species under the authority of the FESA (Sorensen and Propp 1992). The FWS subsequently ruled that the petition was not warranted. However, the California Department of Fish and Game has subsequently included this organism in its list of “Species of Special Concern” and no longer allows the take of this species without the expressed permission of the Department (California Department of Fish and Game 2002).

The western pond turtle is the only native aquatic (freshwater) turtle in California and it is found in a wide variety of aquatic habitats including streams, lakes and ponds. Adult turtles are moderate-sized [4.7-8.3 inches (120-210 mm) carapace length], and are generally brown or khaki-colored (Stebbins 1985). Carapace coloration is usually a dark brown or dull yellow-olive, with or without darker streaks or vermiculations radiating from the centers of the scutes (Ernst et al. 1994, Jennings and Hayes 1994). Hatchling and first-year juvenile turtles have long tails and carapaces that are usually brown or olive in dorsal coloration, with shell lengths generally between 0.99-4.3 inches (25-110 mm).

Life History And Ecology. Adult western pond turtles typically mate in late April or early May, although mating can occur year-round (Holland 1985). The nesting season is from late April to early August (Storer 1930, Rathbun et al. 1992, Jennings and Hayes 1994). Gravid females emigrate from their aquatic habitats to an unshaded, upland

location that may be a considerable distance [1,312.4 feet (400 m) or more] from the riparian zones (Storer 1930, Rathbun et al. 1992); however, if nesting substrates and exposures are suitable, most nest locations are located close to riparian zones (Jennings, pers. obs.). Shallow nests (Rathbun et al. 1992) are usually placed in well-drained clay or silt soils (Jennings and Hayes 1994) with females depositing from 1-13 (6 average) eggs within the nest. The white eggs are elliptical-oval, approximately 1.2-1.7 inches (30.0-42.6 mm) long by 0.7-0.9 inches (18.5-22.6 mm) wide. The eggs have a hard outer calcium shell [ca. 3.9-4.7 inches (10-12 cm)], although eggs laid in excessively moist substrates have a high probability of failing because of the thin permeable shells (Feldman 1982). Females can lay more than one clutch of eggs a year (Goodman 1997b) and may dig several “false” nests lacking eggs to deter potential predators (Rathbun et al. 1993). Hatchling sex is determined by the incubation temperature (Ewert et al. 1994).

Young turtles hatch with carapace lengths between 0.99-1.1 inches (25-29 mm) (Ernst et al. 1994) after an incubation period of 3-4.5 months (Buskirk 1992, Goodman 1997a). Most hatchling turtles are thought to emerge from the nest and to move to aquatic sites in the spring (Buskirk 1992), where they typically double their length the first year and grow rapidly over the next 4-5 years (Storer 1930, Holland 1985). Sexual maturity probably occurs between 7 and 11 years of age with males maturing at slightly smaller sizes and ages than females (Jennings and Hayes 1994). Western pond turtles are known to live over 42 years in the wild (Jennings and Hayes 1994), although most individuals have a much shorter life span of around 20-25 years (Bury 1972).

Young turtles spend most their time feeding in shallow water that is dominated by relatively dense vegetation of submergents, short emergents, or algal mats (Jennings and Hayes 1994). Juveniles and adults prefer lotic aquatic habitats with basking sites such as rocks and logs (Bury 1972). Juveniles and adults seem to remain in pond environments except when such ponds dry up, or at higher elevations when turtles may disperse into terrestrial environments to hibernate (Jennings and Hayes 1994, Bury and Holland, in press). In stream environments, juveniles and adults show considerable variation with regards to movements and the timing of movements into terrestrial environments (Reese and Welsh 1998). The largest turtle populations have been observed in slack- or slow-

water habitats, which have abundant basking sites and underwater refugia (Bury 1972). The presence of dense stands of submergent or emergent vegetation, and abundant aquatic invertebrates resources, as well as suitable nearby nesting sites and the lack of native and exotic predators, are also important components (Bury 1972, Jennings and Hayes 1994, Bury and Holland, in press). Some turtles will leave the stream during the summer when water conditions are low and water temperatures are elevated [$>95^{\circ}\text{F}$ ($>35^{\circ}\text{C}$)], while others will not. However, almost all turtles seem to leave streams during the winter months when large flood events are common (Reese and Welsh 1998). Additionally, some turtles will move considerable distances [e.g., 1,148 feet (350 m)] to overwinter in terrestrial habitats such as leaf litter or under the root masses of trees (Rathbun et al. 1992, Reese and Welsh 1998). Some individual turtles have displayed site fidelity for hibernation and nesting sites from year to year (Bury and Holland, in press).

Western pond turtles often move about from pool to pool in stream situations, sometimes on a daily basis during seasons of activity (Bury 1972, Reese and Welsh 1998). Distances moved along streams can be up to 3.1 miles (5 kilometers) [Bury and Holland, in press]. These turtles also have the ability to move several miles (kilometers) if their aquatic habitat dries up, and can tolerate at least 7 days without water, or 7 days of being immersed in full strength salt water (Jennings and Hayes 1994, Bury and Holland, in press).

Juvenile and adult western pond turtles feed largely on the same food items although juveniles feed more on smaller aquatic invertebrates (Bury 1986). These turtles are dietary generalists that are highly opportunistic (Ernst et al. 1994), and will consume almost anything that they are able to catch and overpower (Holland 1985). Western pond turtles are eaten by a wide variety of natural predators during their life span. Known predators include: bald eagles, ospreys, great blue herons, gulls, river otters, mink, raccoons, gray foxes, coyotes, black bears, introduced bullfrogs, and introduced largemouth bass (Bury 1972). Humans, especially near urban areas, also illegally collect juvenile and adult turtles.

Potential To Occur On-Site. Western pond turtles inhabit the same habitats as the California red-legged frogs. There is one CNDDDB documented occurrences of this species within three miles of the site, within half a mile to the south. Additionally, two individuals were observed, one in 1998 and the other in 2000, approximately 0.75 miles downstream of the site crossing Sanborn Road south of the Sanborn-Skyline County Park entrance (Patricia Kucker, *pers. comm.*). No western pond turtles were observed during the visits to the site by LOA biologists, but it is believed that this species is likely to be present in the tributary stretches within the project boundaries.

2.4 BIOTIC RESOURCES REGULATED BY LOCAL, STATE, AND/OR FEDERAL JURISDICTIONS

2.4.1 Wetlands and Other “Jurisdictional Waters”

Jurisdictional waters include rivers, creeks, and drainages that have a defined bed and bank and which, at the very least, carry ephemeral flows. Jurisdictional waters also include lakes, ponds, reservoirs, and wetlands. Such waters may be subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Game (CDFG), and the California Regional Water Quality Control Board (RWQCB). Aquatic features are typically only considered to be jurisdictional if they connect to other Waters of the United States per the U.S Supreme Court decision *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (SWANCC Decision) and *Rapanos v. United States* and *Carabell v. Army Corps of Engineers* (referred together as the Rapanos decision). See Section 3.2.4 of this report for additional information.

The ordinary high water mark (OHW) of the unnamed tributaries of the site would likely be considered jurisdictional by the USACE and RWQCB, and the bed and bank of the unnamed tributaries of the site would likely be considered jurisdictional by the CDFG.

3.0 IMPACTS AND MITIGATIONS

3.1 SIGNIFICANCE CRITERIA

Approval of general plans, area plans, and specific projects is subject to the provisions of the California Environmental Quality Act (CEQA). The purpose of CEQA is to assess the impacts of proposed projects on the environment before they are constructed. For example, changing land use designation may allow an increase in the amount of existing vegetation that is removed for any future development. Animals associated with this vegetation could be destroyed or displaced. Animals adapted to humans, roads, buildings, pets, etc. may replace those species formerly occurring on a site. Plants and animals that are state and/or federally listed as threatened or endangered may be destroyed or displaced. Sensitive habitats such as wetlands and riparian woodlands may be altered or destroyed. These impacts may be considered significant or not. According to the California Environmental Quality Act, “Significant effect on the environment” means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest. Specific project impacts to biological resources may be considered “significant” if they will:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool,

coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

- 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;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Furthermore, CEQA Guidelines Section 15065 states that a project may trigger the requirement to make a “mandatory findings of significance” if “the project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory.”

3.2 RELEVANT GOALS, POLICIES, AND LAWS

3.2.1 Threatened and Endangered Species

State and federal “endangered species” legislation has provided the California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal endangered species acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as “species of special status”. Permits may be required from both the CDFG and USFWS if activities associated with a proposed project will result in the “take” of a listed species. “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” (California Fish and Game Code, Section 86). “Take” is more broadly defined by the federal Endangered Species Act to include “harm” (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, the CDFG and the USFWS are responding agencies under the California Environmental Quality Act (CEQA). Both agencies 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.

3.2.2 Migratory Birds

State and federal law also protect most bird species. The Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., sec. 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, and bird nests and eggs.

3.2.3 Birds of Prey

Birds of prey are also 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 CDFG.

3.2.4 Wetlands and Other “Jurisdictional Waters”

Natural drainage channels and adjacent wetlands may be considered “Waters of the United States” (hereafter referred to as “jurisdictional waters”) subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE). The extent of jurisdiction has been

defined in the Code of Federal Regulations but has also been subject to interpretation of the federal courts. Jurisdictional waters generally include:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce;
- All impoundments of waters otherwise defined as waters of the United States under the definition;
- Tributaries of waters identified in paragraphs (a)(1)-(4) (i.e. the bulleted items above).

As recently determined by the United States Supreme Court in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (the SWANCC decision), channels and wetlands isolated from other jurisdictional waters cannot be considered jurisdictional on the basis of their use, hypothetical or observed, by migratory birds. However, the U.S. Supreme Court decisions *Rapanos v. United States* and *Carabell v. U.S. Army Corps of Engineers* impose a "significant nexus" test for federal jurisdiction over wetlands. In June 2007, the USACE and Environmental Protection Agency (EPA) established guidelines for applying the significant nexus standard. This standard includes 1) a case-by-case analysis of the flow characteristics and functions of the tributary or wetland to determine if they significantly affect the chemical, physical, and biological integrity of downstream navigable waters and 2) consideration of hydrologic and ecologic factors (EPA and USACE 2007).

The USACE regulates the filling or grading of such waters under the authority of Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is

defined by “ordinary high water marks” on opposing channel banks. Wetlands are habitats with soils that are intermittently or permanently saturated, or inundated. The resulting anaerobic conditions select for plant species known as hydrophytes that show a high degree of fidelity to such soils. Wetlands are identified by the presence of hydrophytic vegetation, hydric soils (soils saturated intermittently or permanently saturated by water), and wetland hydrology according to methodologies outlined in the 1987 Corps of Engineers Wetlands Delineation Manual (USACE 1987).

All activities that involve the discharge of fill into jurisdictional waters are subject to the permit requirements of the USACE (Wetland Training Institute, Inc. 1991). Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values. No permit can be issued until the Regional Water Quality Control Board (RWQCB) issues a certification (or waiver of such certification) that the proposed activity will meet state water quality standards. The filling of isolated wetlands, over which the USACE has disclaimed jurisdiction under the SWANCC decision, is regulated by the RWQCB. It is unlawful to fill isolated wetlands without filing a Notice of Intent with the RWQCB. The RWQCB is also responsible for enforcing National Pollution Discharge Elimination System (NPDES) permits, including the General Construction Activity Storm Water Permit. All projects requiring federal money must also comply with Executive Order 11990 (Protection of Wetlands).

The California Department of Fish and Game has jurisdiction over the bed and bank of natural drainages according to provisions of Section 1601 and 1602 of the California Fish and Game Code (2003). Activities that would disturb these drainages are regulated by the CDFG via a Streambed Alteration Agreement. Such an agreement typically stipulates that certain measures will be implemented which protect the habitat values of the drainage in question.

3.3 POTENTIAL IMPACTS AND MITIGATIONS

This section of the document evaluates the proposed project as it relates to development or changes to the current land use. The proposed project is the build-out of two single-family residences and leachfields along with associated driveway, roads, and a bridge crossing (Figure 2). Chaparral, California bay woodland, mixed woodland, non-native grassland, and ruderal, and the special status plants and animals occurring in them, may be disturbed or destroyed within the footprint of development. Secondary impacts to areas outside of construction zones could occur as well. These impacts could include nest failure of breeding raptors, erosion of cut-and-fill grading, and sedimentation into tributary waters.

It is assumed for the purpose of this report, that completion of the development will necessitate the permanent or temporary removal of some of the natural vegetation. As discussed above, activities resulting in impacts to some biotic resources may also be regulated by local, state and federal laws. The natural resource issues specific to this project are discussed in detail below.

3.3.1 Loss of Habitat for Special Status Plants

Potential Impact. Of the 22 special status plant species occurring within the project vicinity, none are expected to occur on the site (see Table 2). Eighteen of the species are considered to be absent from the area, and four are considered unlikely; Dudley's lousewort (*Pedicularis dudleyi*), Santa Cruz manzanita (*Arctostaphylos andersonii*), robust monardella (*Monardella villosa* ssp. *globosa*), and Santa Cruz Mountains beardtongue (*Penstemon rattanii* ssp. *kleei*). Dudley's lousewort has not ever been observed in the vicinity of the project site, but marginal habitat does occur for the species. The Santa Cruz manzanita could occur in the area, but this species of manzanita was not observed during the site visit. Habitat does occur on site for the robust monardella, although none have been observed in the project's county, and the sightings that have been documented were not in recent years. The densely wooded areas of the

site provide marginal habitat for the Santa Cruz Mountains beardtongue, but it is normally found at higher elevations.

It can be assumed that there would be no loss of special-status plant populations, resulting in a less-than-significant impact.

Mitigation. None would be required.

3.3.2 Loss of Habitat for Special Status Animals

Potential Impact. Nineteen special-status animal species occur, or once occurred, regionally (see Table 2). Of these, five species are absent and two are unlikely to occur on the study area. Seven other species, including three songbirds, three bats, and the ringtail, may rarely or occasionally occur on site as foragers. The proposed project should have no effect on the overall breeding success of any of these 14 species and would only result (at most) in a small reduction of foraging and/or roosting habitat available to them regionally. Therefore, the project would result in a less-than-significant impact on these species.

The five remaining species include the California red-legged frog, foothill yellow-legged frog, western pond turtle, loggerhead shrike, and San Francisco dusky-footed woodrat. Issues related to the two frog species and western pond turtle are discussed below in *Section 3.3.3*, issues related to the loggerhead shrike are discussed below in *Section 3.3.4*, and issues related to the San Francisco dusky footed woodrat are discussed below in *Section 3.3.5*.

Mitigation. None would be required with the exception of the California red-legged frog, foothill yellow-legged frog, western pond turtle, loggerhead shrike, and San Francisco dusky-footed woodrat.

3.3.3 Potential Impacts to the California Red-Legged Frog, Foothill Yellow-Legged Frog, and Western Pond Turtle

Potential Impact. The proposed project may result in minimal impacts to the California red-legged frog, foothill yellow-legged frog, and western pond turtle. The majority of the proposed disturbances will be restricted to the upland habitat where these species would not occur. Individuals may occur within the two larger tributaries of the site along the western and northern boundaries. The tributary in the central portion of the site is small in size, providing very limited to no habitat for these three species.

It is highly unlikely that the individuals using the northern tributary will be impacted due to the lack of proposed disturbance within 25 feet of the top of bank. The only work proposed in this tributary is to tie a PVC pipe into an existing culvert without impacting the banks of the channel. A minimum of a 25-foot setback will be established along the northern tributary. It is highly unlikely that individuals would move beyond the actual corridor of the northern tributary beyond the 25 feet where a gravity wall will be installed. California red-legged frogs, foothill yellow-legged frogs, and western pond turtles have the ability to move upslope, but typically only do so if moving to other suitable habitat. The southern slopes above the northern tributary are very steep with suitable habitat absent from the upland habitats at higher elevations. Individuals do not typically choose to simply forage or seek refuge on steep slopes, great distances from their desired aquatic habitat. Therefore, it has been concluded that individuals within the northern tributary will remain within the channel and its established 25-foot corridor and will not be impacted as a result of this project.

The proposed project has the potential to impact California red-legged frog, foothill yellow-legged frog, and western pond turtle habitat within the footprint of the clear span bridge over the western tributary where riparian habitat will be removed. Impacts will not occur below the top of bank of the western tributary within the suitable aquatic habitat. The following mitigations have been proposed to reduce potential impacts to the California red-legged frog, foothill yellow-legged frog, and western pond turtle to a less-than-significant level.

Mitigation. The primary approach to mitigate impacts to the California red-legged frog, foothill yellow-legged frog, and western pond turtle would be based upon: 1) avoidance of impacts to the tributaries and habitat immediately adjacent to the extent possible; 2) implementation of minimization measures; 3) compensation by replacing the impacts to riparian habitats; and 4) maintain water quality in the watershed.

Avoidance. The project has been designed to avoid impacts to these three species within the tributary along the northern boundary. Minimal impacts are proposed to the habitat within the tributary along western boundary (see below).

Minimization. The project should be implemented in ways that minimize both direct and indirect impacts to the California red-legged frog, foothill yellow-legged frog, and western pond turtle. The project should implement the following measures:

- Pre-construction surveys 48-hours prior to initiation of construction activities;
- The placement of orange construction fencing around the areas of the western and northern tributaries to be preserved to ensure that construction activities do not inadvertently impact preserved areas;
- The training of the construction crew (e.g., tailgate session) to ensure that they are not only aware of the protective measures they are to employ, but also understand the purpose of such measures;
- Construction of the bridge should occur during late summer or fall when the tributary is either dry or nearly dry.
- No construction activity will occur within the bed of the tributaries;
- A qualified biological monitor will be present during the work within close proximity of the tributaries to ensure that the project does not inadvertently harm or injure a California red-legged frog, foothill yellow-legged frog, and western pond turtle.

Compensation by Riparian Restoration. The project will have limited impacts on the riparian habitat of the tributary along the western edge of the property where a bridge will span the top of banks. The applicant will mitigate for any impact to riparian

vegetation by planting replacement trees and understory vegetation along the tributaries just prior to the winter rains (see *Section 3.3.7 Disturbance to Waters of the United States or Riparian Habitats*).

3.3.4 Disturbance to Active Loggerhead Shrike and Raptor Nests from Land Use Change Activities

Potential Impacts. Trees and large shrubs within the boundaries of the project site provide nesting habitat for loggerhead shrikes, as well as raptors which are protected by federal and state laws (see discussion in *Section 3.2.3*). Construction activities could result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect nesting, or result in mortality of individual birds, would be a violation of state and federal law, and would be considered a significant adverse impact per the guidelines of CEQA. The site provides minimal foraging habitat for these species due to the high level of woody vegetation. The minimal loss of a very small area of ruderal and non-native grassland habitat where a leachfield will be installed and a road will be rebuild would not be considered significant. Following project build-out, any individuals currently foraging over these areas would continue to do so. The following mitigation will reduce impacts to individuals to a less-than-significant level.

Mitigation. A qualified ornithologist will conduct a pre-construction survey for nesting loggerhead shrikes and raptors on site within 30 days of the onset of ground disturbance, if ground disturbance is to occur during the breeding season (February 1 to August 31). These surveys will be based on the accepted protocols for the target species. If a nesting loggerhead shrike or raptor were to be detected, an appropriate construction buffer would be established. Actual size of buffer would depend on species, topography, and type of construction activity that would occur in the vicinity of the nest.

3.3.5 Potential Impacts to the San Francisco Dusky-footed Woodrat

Potential Impact. The proposed project may result in impacts to the San Francisco dusky-footed woodrat. Two nests have been observed onsite since 2006. Neither of these nests were within the proposed development footprint. However, woodrats could

choose to build a nest within the development footprint prior to initial ground disturbances. The following mitigation has been proposed to reduce potential impacts to the San Francisco dusky-footed woodrat to a less-than-significant level.

Mitigation. The majority of the project site provides suitable habitat for the San Francisco dusky-footed woodrat. A qualified biologist should conduct a pre-construction survey for woodrats within 30 days of ground disturbance. As this species usually breeds during the spring and summer months, and since young are altricial during early development, the nests should be manually deconstructed when it is determined that the young can move effectively independent of their parents' care (generally from October through January). If young are present, a suitable construction buffer should be established around the active nest until such time when the young can move on their own.

3.3.6 Loss of Habitat for Native Wildlife

Potential Impacts. The project will result primarily in the loss of chaparral, California bay woodland, and mixed woodland habitats. These habitats, while they provide value for a number of native wildlife species, they are relatively common in the region. Therefore, the loss of a small amount of chaparral, California bay woodland, and mixed woodland habitats will result in a less than significant impact to native wildlife in the region.

Impacts to the tributaries of the site would be considered significant and suitable and adequate mitigations for these impacts are discussed in other sections (see *Section 3.3.7 Disturbance to Waters of the United States or Riparian Habitats*). These proposed mitigations are expected to reduce impacts in these habitats to a less-than-significant level and therefore, do not need to be considered in this section.

Mitigation. None would be required.

3.3.7 Interference with the Movement of Native Wildlife

Potential Impacts. The area proposed for development on the site consists of a mosaic of biotic habitats. A diverse assemblage of wildlife species uses these habitats. The movements of various species on- and off-site vary depending on the species in question.

Assessing the importance of an area as a “movement corridor” depends on differentiating between animals’ consistent use patterns. Animal movements generally can be divided into three major behavioral categories:

- Movements within a home range or territory.
- Movements during migration.
- Movements during dispersal.

While no detailed study of animal movements has been conducted for the study area, knowledge of the site, its habitats, and the ecology of the species on-site permits sufficient predictions about the types of movements occurring in the region and whether proposed development would constitute a significant impact to animal movements. The tributaries of the site, like most creek habitats, facilitate the movement of regional wildlife. The construction of the bridge that will be used to access the project site will not impact the movement of any wildlife species in or near the tributary along the western boundary. Construction along northern tributary will also have no impact on wildlife movement. Those species that currently use these tributaries as movement corridors are likely to do so after construction. Construction activities may result in a slight disruption of local wildlife during daylight hours, but would not result in any permanent changes in use or movement patterns once construction is complete. Therefore, development is not expected to have a significant impact on corridor-type movements within the region.

Mitigation. None would be required.

3.3.8 Disturbance to Waters of the United States or Riparian Habitats

Potential Impacts. The tributaries of the site are considered to be Waters of the United States, as well as Waters of the State. Riparian habitat is present along these tributaries, but is restricted to the channels themselves. The limits of the top of bank and edge of riparian along the western tributary are where the ruderal habitat or cement begins. The riparian habitat of the two remaining tributaries is restricted to the channels as well. Both occur in steep woodland or chaparral habitat where the woody vegetation a few feet from the top of bank is considered upland. Impacts to the site's tributaries have been avoided with the exception of the removal of riparian habitat in the footprint of the clear span bridge over the western tributary. It is our understanding that the proposed PVC pipe tie in to the existing culvert within the northern tributary will not impact the banks of the channel and the existing bridge over the western tributary will remain.

According to the current plans, all project activities near the western and northern tributaries will occur above the ordinary high water line. Therefore, permits should not be required by the USACE and RWQCB. However, even though the project is staying above the top of bank of the western tributary during the installation of the clear span bridge, CDFG should be consulted in regards to this activity. CDFG typically wants to be informed of bridge projects regardless of their level of impacts. This is likely going to be the case for this project, especially due to the impacts proposed to riparian habitat. LOA assessed the trees within the footprint of the proposed bridge immediately south of the existing bridge in March 2011. Eight trees may require removal include one tan oak measuring 9.6 inches in diameter at breast height (DBH), three single-trunked maples measuring 5.5, 8.9, 29.2 inches DBH, one double-trunked maple measuring 20.1 and 24.5 inches for a total of 44.6 inches DBH, one pine measuring 12.8 inches DBH, and two California bay trees measuring 6.9+ inches DBH (these were not fully measured, they were not safely measurable as they hung over the steep bank). A description of the trees to be removed and the proposed mitigation (discussed below) should be submitted to CDFG under a simple Stream Alteration Agreement application.

The following mitigation has been proposed to reduce potential impacts to the riparian habitat along the western tributary to a less-than-significant level.

Mitigation. Mitigation in the form of minimization and the use of best management practices is required for the impacts to the tributaries. Replacement plantings will be required for any loss of riparian vegetation. Riparian trees with a DBH i) less than 12 inches will be replaced at a 1:1 ratio; ii) between 12 and 18 inches will be replaced at a 2:1 ratio; iii) between 19 and 24 inches will be replaced at a 3:1 ratio; and iv) 25 inches or greater will be replaced at a 4:1 ratio. Replacement plantings should be installed as close to the onsite tributaries as possible. Native species should be replaced with the same species as those removed and non-native species should be replaced with a native species suitable to the area. Trees must be obtained from a local native plant nursery or propagated from onsite acorn stock. Monitoring will be required following the planting of the replacement trees to ensure their success. A qualified biologist should develop a riparian restoration plan, and this plan at a minimum should identify the area(s) to accomplish this mitigation, a planting plan, and success criteria (along with remedial measures to compensate lack of success).

3.3.9 Degradation of Water Quality in Seasonal Drainages, Stock Ponds and Downstream Waters

Potential Impacts. Eventual site development will require the construction of additional roads, driveways, building pads, leachfields, and the installation of electrical and sewerage lines. Construction of this kind often requires grading that leaves the soil of construction zones barren of vegetation and, therefore, vulnerable to sheet, rill or gully erosion during the rainy season. Eroded soil is generally carried as sediment in surface runoff to be deposited in natural creek beds, canals, and adjacent wetlands. Furthermore, urban runoff is often polluted with grease, oil, residues of pesticides and herbicides, heavy metals, etc. These pollutants may eventually be carried to sensitive wetland habitats used by a diversity of native wildlife species. The deposition of pollutants and sediments in sensitive wetland habitats would be considered a potentially significant adverse environmental impact.

The applicant must comply with the provisions of a County's grading permit, including standard erosion control measures that employ best management practices (BMPs). The applicant would also need to develop a SWPPP per State Water Quality Control Board Stormwater Permit. Mitigation above the BMPs and permitting will not be required.

Mitigation. None would be required.

3.3.10 Local Policies or Ordinances Protecting Biological Resources

Potential Impact. There are no local policies or ordinances that would pertain to the proposed project. The County of Santa Clara has a tree ordinance, but due to the size of the project area (greater than three acres) and the fact that it is privately owned, no specific requirements would be required by the County regarding tree removal (*Shoe, pers. comm.*). However, the County is requiring that for this project tree replacement be implemented for impacts to oak trees with a DBH of 12 inches or greater.

Mitigation. None would be required.

3.3.11 Confliction with Provisions of an Adopted Conservation Plan

Potential Impact. An adopted or a draft Habitat Conservation Plan does not exist for the area in which the project is proposed. The draft Santa Clara Valley Habitat Plan does not cover the site. Therefore, this significance criterion does not apply.

Mitigation. None would be required.

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