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# Biological Resources Assessment Report

YOUNG RANCH, SANTA CLARA COUNTY, CALIFORNIA

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## **1.0 INTRODUCTION**

WRA, Inc. performed an assessment of biological resources at the approximately 2,150 acre Young Ranch (Site) in Santa Clara County, California (Figure 1). The purpose of the assessment was to gather information about the existing biological resources within the Study Area. This report describes the results of several site visits conducted between 2008 and 2011, which assessed the Site for the (1) potential to support special-status species; and (2) presence of other sensitive biological resources protected by local, state, and federal laws and regulations. Some of these studies were focused species surveys, while others were more general habitat mapping exercises. If special-status species were observed during the site visits, they were recorded. Specific findings on the habitat suitability or presence of special-status species or sensitive habitats may require that protocol-level surveys be conducted.

A biological resources assessment provides general information on the potential presence of sensitive species and habitats. Although this biological assessment is not an official protocol-level survey for all listed species that may be required for project approval by local, state, or federal agencies, focused, protocol rare plant surveys were conducted for the federal and California Native Plant Society (CNPS)-listed species previously known from or observed to occur onsite during prior visits. This assessment is based on information gathered during various surveys and site visits and on site conditions that were observed on the dates of the site visits over the period of four years.

## **2.0 REGULATORY BACKGROUND**

The following sections explain the regulatory context of the biological assessment, including all of the applicable laws and regulations that were applied to the field investigations.

### **2.1 Special-status Species**

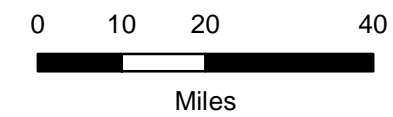
Special-status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. In addition, California Department of Fish and Game (CDFG) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, and CDFG special-status invertebrates are all considered special-status species. Although CDFG Species of Special Concern generally have no special legal status, they are given special consideration under the California Environmental Quality Act (CEQA). In addition to regulations for special-status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act (MTBA) of 1918. Under this legislation, destroying active nests, eggs, and young is illegal. Plant species on CNPS Lists 1 and 2 are also considered special-status plant species and must be considered under CEQA. CNPS List 3 and 4 plants have little or no protection under CEQA.

Young Ranch  
Santa Clara County,  
California

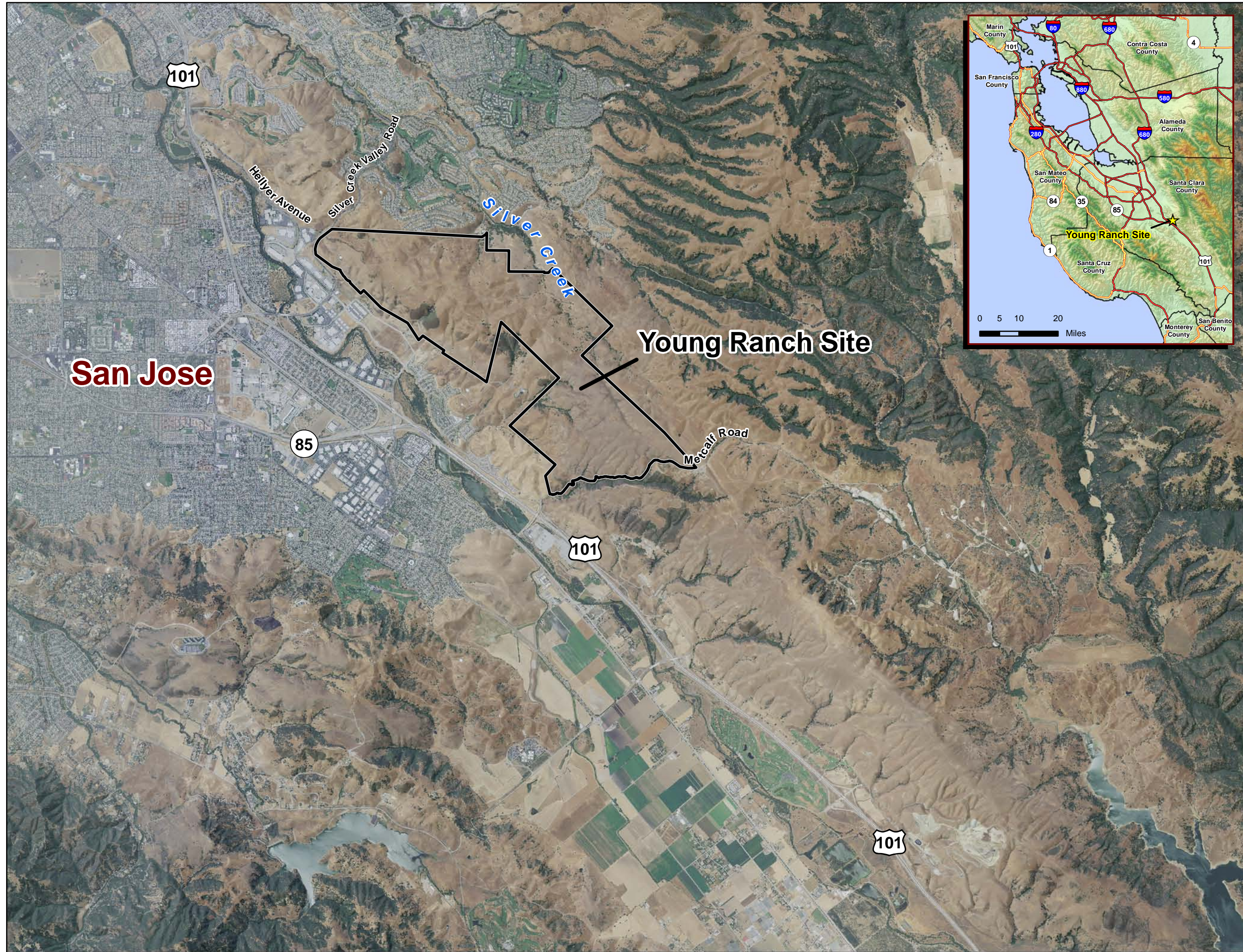


Figure 1.

Young Ranch Site  
Location Map



Date: August 2011  
Map by: Michael Rochelle  
Aerial: 2005 NAIP



## Critical Habitat

Critical habitat is a term defined and used in the Federal Endangered Species Act (FESA) as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The FESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in the species' recovery. In many cases, this level of protection is similar to that already provided to species by the FESA "jeopardy standard." However, areas that are currently unoccupied by the species but which are needed for the species' recovery, are protected by the prohibition against adverse modification of critical habitat.

## **2.2 Sensitive Biological Communities**

Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, and riparian habitat. These habitats are protected under federal regulations (such as the Clean Water Act), state regulations (such as the Porter-Cologne Act, the CDFG Streambed Alteration Program, and CEQA), or local ordinances or policies (City or County Tree Ordinances, Special Habitat Management Areas, and General Plan Elements).

## Waters of the United States

The U.S. Army Corps of Engineers (Corps) regulates "Waters of the United States" under Section 404 of the Clean Water Act. "Waters of the U.S." are defined broadly as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands stated in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated for sufficient duration and depth to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as "other waters" and are often characterized by an ordinary high water mark (OHWM). Other waters, for example, generally include lakes, rivers, and streams. The placement of fill material into "Waters of the U.S." (including wetlands) generally requires an individual or nationwide permit from the Corps under Section 404 of the Clean Water Act.

## Waters of the State

The term "Waters of the State" is defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope, but has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes "isolated" wetlands and waters that may not be regulated by the Corps under Section 404. "Waters of the State" are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact "Waters of the State," are required to comply with the terms of the Water

Quality Certification determination. If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to “Waters of the State,” the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

#### Streams, Lakes, and Riparian Habitat

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFG under Sections 1600-1616 of California Fish and Game Code. Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term stream, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows: “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG ESD 1994). Riparian is defined as, “on, or pertaining to, the banks of a stream;” therefore, riparian vegetation is defined as, “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself” (CDFG ESD 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFG.

#### Other Sensitive Biological Communities

Other sensitive biological communities not discussed above include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFG. CDFG ranks sensitive communities as “threatened” or “very threatened” and keeps records of their occurrences in its Natural Diversity Database (CNDDDB, CDFG 2011). Sensitive plant communities are also identified by the CDFG (2003, 2007). Impacts to sensitive natural communities identified in local or regional plans, policies, regulations or by the CDFG or USFWS must be considered and evaluated under CEQA (California Code of Regulations: Title 14, Div. 6, Chap. 3, Appendix G). Specific habitats may also be identified as sensitive in City or County General Plans or ordinances.

#### Relevant Local Policies, Ordinances, Regulations

##### *Santa Clara County General Plan (including Rural Unincorporated Area Issues and Policies)*

Santa Clara County’s General Plan contains policies related to biological resource conservation that are applicable to the Site:

- Policy C-RC 29: Multi-jurisdictional coordination necessary to adequately identify, inventory, and map habitat types should be achieved at the local, regional, state, and federal levels.
- Policy R-RC 23: Knowledge and mapping of habitat resources within the rural unincorporated areas should be improved to provide an accurate basis for: (a) reviewing proposed projects that require discretionary approvals or permits; (b) assessing environmental impacts for projects under CEQA; (c) identifying critical habitat resources; and (d) cooperative conservation planning efforts.



## Grassland/Savanna Habitat

The County's General Plan indicates that grassland/savanna habitat is considered primary habitat and includes grasslands common to valley floors, hillsides and ridge areas where moisture is limited, as well as the oak savanna communities common in the foothills. Perhaps most sensitive of the natural communities found in such areas are the areas of serpentine soils, which foster native vegetation and provide critical habitat for numerous threatened and endangered species found in no other areas, such as the bay checkerspot butterfly (BCB) and various native flowers.

### *Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP)*

The Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) (ICFI 2010) is in Public Draft stage but should be considered for planning purposes. The County is working with state and local agencies to develop the HCP/NCCP and regulations instated prior to the onset of construction may apply to this project. The HCP/NCCP is expected to be adopted mid-2012.

### *City of San Jose General Plan*

The City of San Jose's General Plan contains goals and policies related to biological resources that are applicable to the Site.

#### Species of Concern Policies:

1. Consideration should be given to setting aside conservation areas in the Bay and baylands, along riparian corridors, upland wetlands, and hillside areas to protect habitats of unique, threatened and endangered species of plants and animals, and to provide areas for educational and research purposes.
2. Habitat areas that support Species of Concern should be retained to the greatest extent feasible.

## **3.0 METHODS**

During site visits conducted between 2008 and 2011, the Site was traversed on foot to determine (1) plant communities present within the Site, (2) if existing conditions provided suitable habitat for any special-status plant or wildlife species, and (3) if sensitive habitats are present. All plant and wildlife species encountered were recorded, and are recorded in Appendix A.

### **3.1 Biological Communities**

Prior to the Site visit, WRA examined the Soil Surveys of Eastern and Western Santa Clara County, California [U.S. Department of Agriculture (USDA) 2010], satellite images, and previous geology and hydrology surveys to determine if any unique soil types that could support unique plant communities and/or aquatic features were present in the Site. Biological communities present in the Site were classified based on existing plant community descriptions described in the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986)

or from vegetation communities described in the *Santa Clara Valley Habitat Plan: 1<sup>st</sup> Administrative Draft* (HCP, ICF Jones & Stokes 2008).

WRA first identified and mapped biological communities in the field during site visits on March 31 and April 1, 2008. These surveys were conducted by WRA biologists who are familiar with plant species and biological communities in the area. The entire Site was traversed on foot using 1:610 scale maps with 25-foot topographical contour lines and color National Agriculture Imagery Program (NAIP) aerial photo base maps for navigation and recording field notes. Additional field notes and species lists for each biological community were recorded on waterproof field notebooks. Boundaries of each biological community were established based on plant species composition, density, and diversity. Communities were distinguished by homogeneity of species, soils, slope, and other landscape features as much as possible; some communities, such as non-native annual grassland, include mosaics of varying habitat features consistent with this type of grassland. Community boundaries were hand-drawn onto field maps and then digitized using ArcMap GIS technology. All observed plants were identified to the taxonomic level necessary to identify distinct species using *The Jepson Manual* (Hickman 1993).

WRA further refined the biological communities mapping during several follow up site visits between 2008 and 2011. These efforts included:

- Focused wildlife species surveys: Adult BCB surveys were conducted during the 2008, 2009, 2010, and 2011 flight season (March through April).
- Plant species surveys:
  - Focused rare plant survey: conducted over the entire Site in March, April, and May of 2008 and 2009 and additionally in March, 2010.
  - Fragrant fritillary focused survey: conducted on March 1, 2010 in the serpentine grasslands throughout the Site.
  - Smooth lessingia focused survey: conducted July 14, 2011 in the serpentine grasslands throughout the Site.
  - Artichoke thistle mapping surveys: conducted on July 14, 2011 throughout the Site.
  - Barbed goat grass mapping: conducted in May and June of 2010 over the entire Site and additionally on June 8, 2011 in previously documented areas.
- Arborist Survey: Conducted on June 28 and 29, 2011 on approximately 773 acres of the northern portion of the Site.
- Protocol wetland delineation: 895 acres of the northern portion of the 2,150-acre Site were delineated on April 19 and 26, 2011.

The resulting habitat map and species observed list are included herein, based on specific reports for the more focused work.

### 3.1.1 *Non-sensitive Biological Communities*

Non-sensitive biological communities are those communities that are not afforded special protection under CEQA, and other state, federal, and local laws, regulations and ordinances. These communities may, however, provide suitable habitat for some special-status plant or wildlife species and are identified or described in Section 4.1.1 below.

### 3.1.2 *Sensitive Biological Communities*

Sensitive biological communities are defined as those communities that are given special protection under CEQA and other applicable federal, state, and local laws, regulations and ordinances. Applicable laws and ordinances are discussed above in Section 2.0. Special methods used to identify sensitive biological communities are discussed below.

### Wetlands and Waters

The Site was surveyed to determine if any wetlands and waters potentially subject to jurisdiction by the Corps, RWQCB, or CDFG were present. The assessment of the majority of the Site was based primarily on the presence of wetland plant indicators, but may also include any observed indicators of wetland hydrology or wetland soils. A formal wetland delineation was conducted on 895 acres in the northern portion of the 2,150-acre Site. Any potential wetland areas were identified as areas dominated by plant species with a wetland indicator status<sup>1</sup> of OBL, FACW, or FAC as given on the U.S. Fish and Wildlife Service List of Plant Species that Occur in Wetlands (Reed 1988). Evidence of wetland hydrology can include direct evidence (primary indicators), such as visible inundation or saturation, surface sediment deposits, algal mats and drift lines, or indirect indicators (secondary indicators), such as oxidized root channels. Some indicators of wetland soils include dark colored soils, soils with a sulfidic odor, and soils that contain redoximorphic features as defined by the Corps Manual (Environmental Laboratory 1987) and Field Indicators of Hydric Soils in the United States (NRCS 2002).

The preliminary waters assessment was based primarily on the presence of unvegetated, ponded areas or flowing water, or evidence indicating their presence such as a high water mark or a defined drainage course.

### Other Sensitive Biological Communities

The Site was evaluated for the presence of other sensitive biological communities, including riparian areas, sensitive plant communities recognized by CDFG, and primary habitat types of importance in Santa Clara County.

## **3.2 Special-status Species**

### 3.2.1 *Literature Review*

Potential occurrence of special-status species in the Site was evaluated by first determining which special-status species occur in the vicinity of the Site through a literature and database search. Database searches for known occurrences of special-status species focused on the

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<sup>1</sup> OBL = Obligate, always found in wetlands (> 99% frequency of occurrence); FACW = Facultative wetland, usually found in wetlands (67-99% frequency of occurrence); FAC = Facultative, equal occurrence in wetland or non-wetlands (34-66% frequency of occurrence).

East San Jose, Lick Observatory, Morgan Hill, and Santa Teresa Hills 7.5 minute USGS quadrangle. Additionally, a CNPS electronic inventory focused on the East San Jose and the eight surrounding USGS quadrangles. The following sources were reviewed to determine which special-status plant and wildlife species have been documented to occur in the vicinity of the Site. This list includes draft reports that WRA prepared previous to the current report that summarize field survey results:

- California Natural Diversity Database records (CNDDDB) (CDFG 2011)
- USFWS quadrangle species lists (USFWS 2011)
- CNPS Electronic Inventory records (CNPS 2011)
- CDFG publication “California’s Wildlife, Volumes I-III” (Zeiner et al. 1990)
- CDFG publication “Amphibians and Reptile Species of Special Concern in California” (Jennings 1994)
- CDFG Publication “California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California” (Shuford and Gardali 2008).
- A Field Guide to Western Reptiles and Amphibians (Stebbins, R.C. 2003)
- Fairy Shrimps of California’s Puddles, Pools and Playas (Eriksen and Belk 1999)
- Draft Bay Checkerspot Butterfly Report 2008-2011, Young Ranch, Santa Clara County, California (WRA 2011a)
- Preliminary Jurisdictional Determination, Young Ranch, Santa Clara County, California (WRA 2011b)
- Draft Rare Plant Survey Report, Young Ranch, Santa Clara County, California (WRA 2011c)

### 3.2.2 Site Assessment

WRA biologists conducted many field visits to the Site to search for suitable habitats for special-status species. They observed habitat conditions on the Site to evaluate the potential for presence of special-status species based on professional expertise. The potential for each special-status species to occur in habitat present on the Site was then evaluated according to the following criteria:

- 1) No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- 2) Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- 3) Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- 4) High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- 5) Present. Species is observed on the site or has been recorded (i.e., CNDDDB, WRA or other reports) on the site recently.

The site assessment identifies the presence or absence of suitable habitat for each special-status species in order to determine its potential to occur in the Site. The assessment site visit does not constitute a protocol-level survey for all special-status species, and is not intended to determine the actual presence or absence of a species; however, if a special-status species is observed during the site visit, its presence will be recorded and discussed. Protocol-level focused surveys were conducted for the federal and CNPS-listed species previously known from or observed to occur onsite during prior visits and are discussed in Section 4.2.

In cases where little information is known about species occurrences and habitat requirements, the species evaluation was based on best professional judgment of WRA biologists with experience working with the species and habitats. If necessary, recognized experts in individual species biology were contacted to obtain the most up-to-date information regarding species biology and ecology.

When special-status species were observed during the site visits, their presence was recorded and is discussed below in Section 4.2. For some species, a site assessment visit at the level conducted for this report may not be sufficient to determine presence or absence of a species to the specifications of regulatory agencies. In these cases, a species may be assumed to be present, or further protocol-level special-status species surveys may be necessary. Special-status species for which further surveys may be necessary are described below in Section 5.0.

### 3.2.3 Focused Rare Plant Surveys

WRA biologists conducted focused rare plant surveys to identify occurrences of seven special-status plant species in 2009, 2010, and 2011. The purpose of these focused surveys was to identify the location and numbers of several special-status plant species thought or known to occur on-site. The focused special-status plant surveys were conducted by WRA botanists during the blooming periods of the target species. Incidental observations of other special-status species observed during the surveys are also discussed in this report and in the Rare Plant Survey Report (WRA 2011c).

The focused rare plant field surveys for Metcalf Canyon jewelflower (*Streptanthus albidus* ssp. *albidus*, Federal Endangered) and Santa Clara Valley dudleya (*Dudleya abramsii* ssp. *setchellii*, Federal Endangered) were conducted on May 4-5, May 14-15, and May 19, 2009. The surveys were conducted over five days in May 2009 and consisted of 14 person-days of surveys. While the surveys were floristic in nature, they are not considered “protocol-level” for all species with potential to occur in the Site since the surveys corresponded to the peak blooming period for observing and accurately identifying the two target species (May). Three botanists were present on the first four survey dates while two botanists were present on the last survey. Field surveys ranged from eight to ten hours each, therefore the entire survey effort totaled over 120 person-hours on the ground. Follow up surveys were conducted for these species in May 2011 to refine population numbers and extents in certain areas.

Supplemental focused rare plant surveys for fragrant fritillary (*Fritillaria liliacea*) were conducted on March 1, 2010 during the peak blooming period. Three botanists familiar with fragrant fritillary and the Site habitat conducted one survey over one day for a total of over 24 person-hours on the ground. A summary of the results of these surveys can be found in the Rare Plant Survey Report (WRA 2011c).

A second round of supplemental focused rare plant surveys was conducted for smooth lessingia (*Lessingia micradenia* var. *glabrata*) on July 14, 2011. Three botanists familiar with smooth lessingia and the Site habitat conducted one survey over one day for a total of approximately 30

person-hours of surveys. A summary of the results of these surveys can be found in the Rare Plant Survey Report (WRA 2011c).

All plants were identified using The Jepson Manual (Hickman 1993) and Illustrated Flora of the Pacific States (Abrams and Ferris 1951) to the taxonomic level necessary to determine whether or not they were rare. A list of all plant species observed during the Site surveys is provided in Appendix A.

WRA conducted surveys focused on habitats with the potential to support the target species. Grassland underlain by thin, serpentine soils and serpentine rock outcrops were surveyed for most of the special-status plant species. In addition to grasslands, serpentine swales were surveyed for Artichoke thistle (*Cynara cardunculus*) and scrub habitat was surveyed for Hall's bush mallow (*Malacothamnus hallii*). WRA performed habitat mapping field studies and butterfly surveys in March and April of 2008 and 2009 covering the entire Site which preceded the rare plant focused surveys. This prior work allowed for identification and refinement of habitats with potential to support the rare plant species. WRA surveyed all rock outcrops, serpentine soils, and unique geologic areas for the target species in detail and other habitats as needed. WRA quickly surveyed non-native annual grassland habitat for pockets of potentially suitable habitat as a precautionary measure; it was evident that the habitat typing was very accurate and the target species were not found in areas dominated by non-native annual grasses without thin serpentine soils or outcrops.

#### 3.2.4 Focused Bay Checkerspot Butterfly Surveys

WRA conducted field surveys for adult Bay checkerspot butterfly (BCB) within the Site during the 2008, 2009, 2010 and 2011 BCB adult flight season (late March through mid-April) during periods of weather suitable for butterfly flight. WRA traversed the Site on foot to determine the extent of suitable habitat for BCB, and the presence and distribution of adult BCB within the Site. WRA also examined the Site for the presence of physical and biological features important to BCB life history and survival including stable holes, soil cracks, or rock outcrops that provide suitable shelter for BCB larvae in addition to the plants that the larvae and adult butterflies rely upon for feeding. The Bay Checkerspot Butterfly Habitat Analysis and Survey Report (2011a) describes the methods and results of the site visits and literature research which assessed the Site for the (1) presence of BCB larval and adult butterfly habitat and its distribution; (2) presence and distribution of BCB adults on-site; and (3) past data and knowledge of BCB on-site and in the vicinity.

## 4.0 RESULTS

The Site is approximately 2,150 acres and is located along Coyote Ridge, the westernmost ridge of the Mt. Hamilton Range east of Highway 101, between Silver Creek Valley Road to the north and Metcalf Road to the south. The Site is grazed ranching land dominated by non-native annual grassland with pockets of oak woodland, native serpentine bunchgrass grasslands, and riparian vegetation along a few of the creeks. Elevation ranges from approximately 400 to 1200 feet National Geodetic Vertical Datum (NGVD), and site topography consists of rolling hills, floodplains, steep grassy slopes and rocky outcrops. Soils in the Site are primarily undisturbed native soils, including many areas underlain and influenced by serpentinite parent material. The Site is within the Coyote Creek watershed and is drained by Silver Creek to the northeast and unnamed tributaries to Coyote Creek to the south and west. Sources of hydrology on the site are rainfall, natural hillside seeps, and upper Silver Creek, which is a perennial stream.

Most of the Site falls within the limits of the most recent designation of BCB Critical Habitat by the USFWS (2008).

#### 4.1 Biological Communities

Table 1 summarizes the area of each biological community type observed in the Site. Biological communities in the Site include non-native annual grassland, serpentine bunchgrass grassland, scrub, mixed oak woodland, wetlands, waters, and riparian. Descriptions for each biological community are contained in the following sections and biological communities within the Site are shown in Figure 2.

Table 1. Biological Community Acreages in the Young Ranch Site.

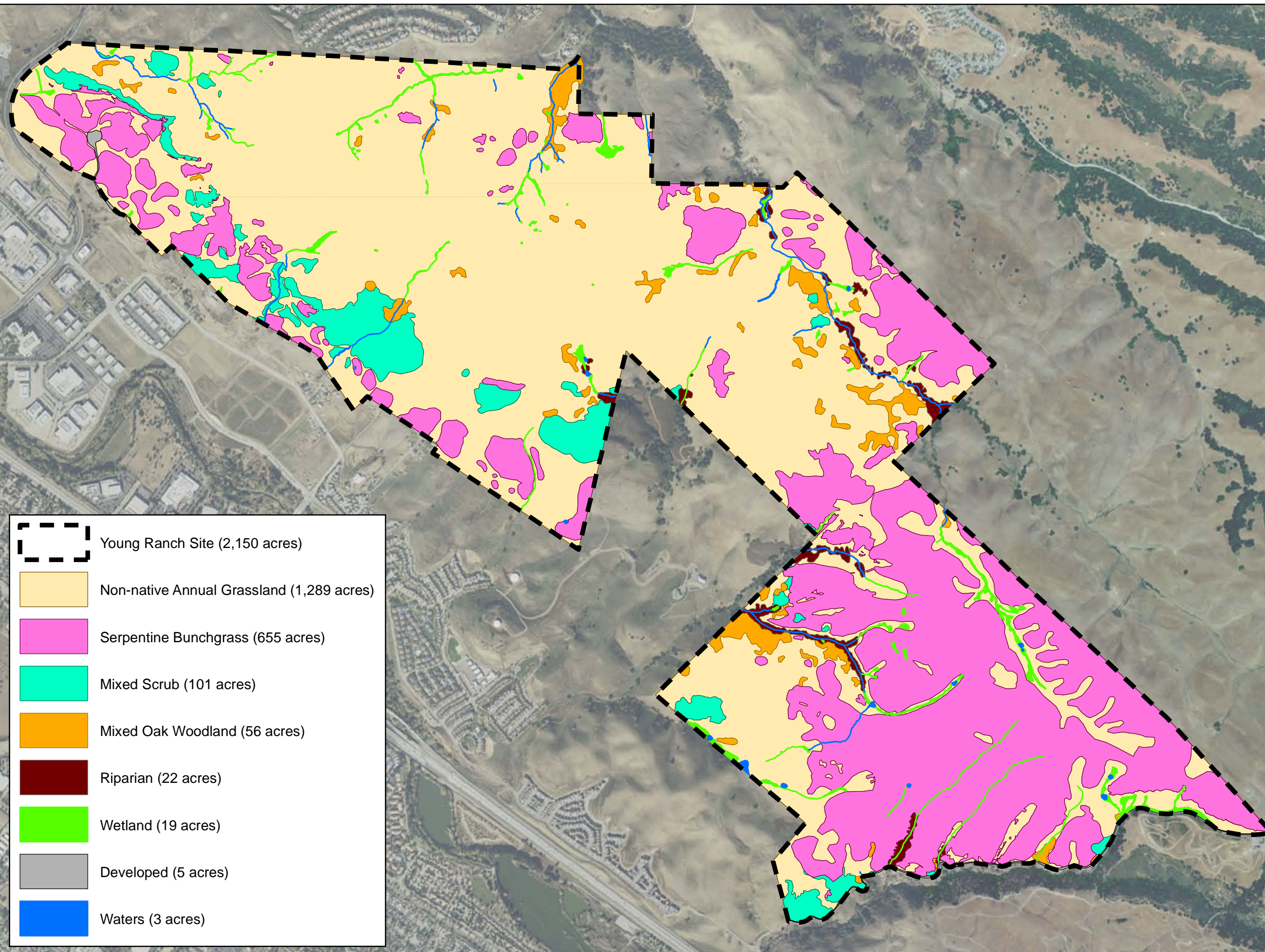
<b>Biological Community</b>	<b>Acres (rounded)</b>	<b>Percent of Total</b>
Non-native Annual Grassland	1,289	60
Serpentine Bunchgrass Grassland	655	30
Scrub	101	5
Mixed Oak Woodland	56	2
Riparian	23	1
Wetlands	19	1
Waters	4	<1
Developed	5	<1
<b>TOTAL</b>	<b>2,150</b>	<b>100</b>

##### Non-native Annual Grassland

Non-native annual grassland is an herbaceous plant community dominated by annual grasses that are not native to California. Grass species found in this community within the Site include Italian ryegrass (*Lolium multiflorum*), rat-tail fescue (*Vulpia myuros*), ripgut brome (*Bromus diandrus*), slender wild oat (*Avena barbata*), soft brome (*Bromus hordeaceus*), harding grass (*Phalaris aquatica*). Annual and perennial wildflowers and forbs also occur in this biological community, including yarrow (*Achillea millefolium*), clover (*Trifolium* spp.), California poppy (*Eschscholzia californica*), filaree (*Erodium* spp.), lupine (*Lupinus* spp.), black mustard (*Brassica nigra*), and California buttercup (*Ranunculus californicus*). Non-native annual grassland is located throughout the Site, but dominates the northwestern and central portions. The Site supports approximately 1,289 acres of this community.

Young Ranch  
Santa Clara County,  
California

Figure 2.  
Biological Communities  
within the Site



0 600 1,200 2,400  
Feet

Date: November 2011  
Map by: Michael Rochelle  
Aerial: ESRI Imagery



### Serpentine Bunchgrass Grassland

Serpentine bunchgrass grassland occurs on ultramafic soils derived from serpentinite. Serpentine soils generally have lower overall cover of vegetation as well as lower cover of non-native species than annual grasslands, and are characterized by low plant growth and productivity (Holland 1986). This vegetation community also includes nearly bare serpentine outcrops within the greater grassland habitats. Typical species in serpentine bunchgrass include Italian ryegrass (*Lolium multiflorum*), California goldfields (*Lasthenia californica*), dwarf plantain (*Plantago erecta*), jeweled onion (*Allium serra*), cream cups (*Platystemon californica*), and clover (*Trifolium* spp.). Plant species found in the serpentine rock outcrops include two federal-listed species, Santa Clara Valley dudleya (*Dudleya setchellii*) and most beautiful jewelflower (*Streptanthus albidus* ssp. *peramoenus*). Approximately 655 acres of serpentine bunchgrass grassland habitat exist within the Site.

### Scrub

Scrub communities occur on thin, rocky soils, often on south-facing slopes that are drier and hotter than surrounding habitats. Scrub communities are dominated by evergreen woody shrubs, sub-shrubs and drought-tolerant perennial herbs. Although scrub understory is often thin or lacking, some annual herbs and perennial grass are adapted to the harsh conditions supporting scrub communities. Within the Site, areas mapped as scrub are dominated by California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), bush monkeyflower (*Mimulus aurantiacus*) and poison oak (*Toxicodendron diversilobum*). Other associated species include coyote brush (*Baccharis pilularis*), chia (*Salvia columbariae*), Hall's bush mallow (*Malacothamnus hallii*), naked buckwheat (*Eriogonum nudum*), and woolly sunflower (*Eriophyllum lanatum*). Approximately 101 acres of this habitat occur in the Site.

### Mixed Oak Woodland

Mixed oak woodland in the Site includes habitats that are dominated by oak species or in which oaks are co-dominant. These woodlands occur as closed-canopy stands with a shrubby or sparse understory, especially adjacent to riparian woodlands, and as open savanna with a grassy understory within grassland habitats. Coast live oak (*Quercus agrifolia*) and valley oak (*Quercus lobata*) occur as dominant and co-dominant species in oak woodlands throughout the Site. Other species in this biological community include bay (*Umbellularia californica*), black oak (*Quercus kelloggii*), poison oak, and toyon (*Heteromeles arbutifolia*). Approximately 56 acres of mixed oak woodland habitat occur in the Site.

### Riparian

Although most drainages in the Site do not have well defined riparian habitat with unique species relative to the surrounding habitat, a few of the larger drainages do support such communities while others support limited components of riparian vegetation. Silver Creek is an example of a large (5- to 8-foot-wide bed) perennial stream with a well-developed assemblage of uniquely riparian species. Commonly observed canopy species in these drainages include arroyo willow (*Salix lasiolepis*), buckeye (*Aesculus californica*), bay (*Umbellularia californica*), and valley oak. Species found in the understory include poison oak, snowberry (*Symphoricarpos mollis*), hedge nettle (*Stachys bullata*), and wild cucumber (*Marah fabaceus*). Approximately 23 acres of riparian habitat exist in the Site.

## Wetlands

Several wetland community types are present in the Site covering approximately 19 acres. Seasonal wetlands, freshwater seeps, and freshwater marshes all occur throughout the Site. Seasonal wetland and freshwater seep communities are found in swales, depressions, or hillside slumps that are saturated during the rainy season for sufficient duration to support vegetation adapted to wetland conditions. Freshwater marshes are wetland habitats that are seasonally flooded or perennially inundated and that are dominated by emergent vegetation.

Seasonal wetlands in the Site generally consist of vegetated drainages and swales. Throughout the Site, seasonal wetlands were generally dominated by hydrophytic species including iris-leaved rush (*Juncus xiphioides*), Mediterranean barley (*Hordeum marinum*) and Italian ryegrass. Seasonal wetland features were often found in shallow ephemeral drainages where defined stream bed and bank dissipated into wider wetland swales.

Seep wetlands in the Site were generally found on hillsides, where groundwater is forced to the surface by an underlying impervious soil layer. Seep wetlands were observed both within and directly adjacent to stream channels in low topographic positions, and high on hillsides where they are hydrologically isolated from other wetland and water features. These seeps are dominated by wetland species including iris-leaved rush, common spikerush (*Eleocharis macrostachya*), Italian ryegrass and spreading rush. Where standing water was present in perennial freshwater seep wetlands, obligate wetland species were observed including watercress (*Rorippa nasturtium-aquaticum*), manna grass (*Glyceria leptostachya*) and seep monkeyflower (*Mimulus guttatus*). Other seeps in the Site occur on hillsides within serpentine grassland and thus are considered serpentine seeps. Species found primarily in perennial serpentine seeps include iris-leaved rush, common spikerush and Mt. Hamilton thistle (*Cirsium fontinale* var. *campylon*).

Freshwater marshes occur on the edges of stock ponds in the southern portion of the Site. These marshes are dominated by cattails (*Typha* spp.), which have out competed most other plant species to make this community one of monotypic vegetation.

## Waters

Approximately 4 acres of "Other Waters" were mapped within the Site, including seasonal and ephemeral drainages, and open waters including stock ponds. Drainages were mapped based on the presence of an ordinary high water mark (OHWM). Typical OHWM indicators observed included presence of a defined bed and bank, water marks, presence of wrack, bent or matted vegetation and flowing water in the case of some larger drainages. Seasonal drainages, which carry flows throughout the rainy season and occasionally into the summer, exhibited many OHWM indicators. Ephemeral drainages, which carry flows only during and shortly after precipitation events, typically exhibited only one or two OHWM indicators.

Several stock ponds were observed and mapped within the Site. The extent of open water was mapped in the field. In most cases, a fringe of freshwater emergent marsh ringed the open water of stock ponds.

## Developed

Approximately 5 acres of developed areas were mapped within the Site. Developed areas include a paved access road to a municipal water tank reservoir in the northern portion of the Site.

## 4.2 Special-Status Species

### 4.2.1 Plants

Based upon a review of the types of resources in Section 3.2.1, 35 special-status plant species have been documented in the vicinity of the Site. Appendix B summarizes the potential for each of the 35 special-status plant species to occur in the Site. Of the 35 special-status plant species determined in the vicinity seven are present on-site (Table 2 and Figure 3), none have a high potential to occur, and seven have a moderate potential to occur in the Site. The remaining 21 special-status plant species documented to occur in the vicinity of the Site are unlikely or have no potential to occur on-site. Species that were observed within the Site are discussed below. Those species with a moderate potential to occur are summarized within Table 3, below. The potential for all species analyzed is included in Appendix B.

#### Observed special-status plant species

##### *Santa Clara Valley dudleya and Metcalf Canyon jewelflower*

Although previously known from the Site, the locations and numbers of the federally endangered Santa Clara Valley dudleya and Metcalf Canyon jewelflower within the Site were poorly understood. The rare plant research and associated focused surveys aimed to provide a better assessment of the numbers and distribution of these two species in the Site in addition to other special-status plants likely to occur onsite. Extensive ground-based surveys covered all areas of the property with potential to support the target species.

Approximately 18,266 individuals of Santa Clara Valley dudleya and 31,696 individuals of Metcalf Canyon jewelflower were observed and mapped in approximately 41 acres of habitat each within the Site (Table 2, Figure 3) over the period of three years. Surveys occurred during the peak blooming period for the species. Focused survey reports for these two special-status plant species are contained within Appendix C.

WRA found these species on serpentine derived soils or serpentine rock outcrops. While the majority of these plants occurred on thin-soiled serpentine barrens that supported few other species, some populations of Metcalf Canyon jewelflower occurred in serpentine-derived colluvium with thicker layers of topsoil that also supported large populations of wild oat of equal or greater height. At times Metcalf Canyon jewelflower and Santa Clara Valley dudleya occupied the same patches, but in general WRA observed the two species in unique habitats. This is partly because Santa Clara Valley dudleya is especially adapted to grow in crevices of rock outcrops.

The populations of Santa Clara Valley dudleya and Metcalf Canyon jewelflower were observed in three distinct areas of the Young Ranch property (Table 2, Figure 3):

- 1) By far, the largest and densest populations were located in the southern third of the property that abuts Metcalf Road. Some of these populations were surveyed and mapped about a decade ago and appear in the CNDDB. These correspond to Santa Clara Valley dudleya occurrence-number 5 and Metcalf Canyon jewelflower occurrence number 2. The population estimates for these individuals in the CNDDB are grossly underrepresented, however, as the Santa Clara Valley dudleya estimates are in the hundreds and the jewelflower estimates range from the hundreds to thousands. The current study provides a much more accurate representation of the sizes and distribution of the populations in these areas.

Table 2. Special-status Plant Species Observed on Young Ranch.

Species	Rank	Numbers of Individuals Observed	Acreage of Occupied Habitat Observed*
Santa Clara Valley dudleya <i>Dudleya setchellii</i>	federal endangered	18,266	41
Metcalf Canyon jewelflower <i>Streptanthus albidus</i>	federal endangered	30,229	41
Hall's bush mallow <i>Malacothamnus hallii</i>	CNPS List 1B	2,608	19
Mount Hamilton thistle <i>Cirsium fontinale</i> var. <i>campylon</i>	CNPS List 1B	8,514	3
fragrant fritillary <i>Fritillaria liliaceae</i>	CNPS List 1B	956	2.3
smooth lessingia <i>Lessingia micradenia</i> var. <i>glabrata</i>	CNPS List 1B	23,330	80.2
most beautiful jewelflower <i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	CNPS List 1B	6	<0.1
Total		83,799	156.1
* Since many of the plants overlap in area over time, the total occupied area is not a sum of the area occupied for each species.			

2) The second largest groups of observed Santa Clara Valley dudleya and Metcalf Canyon jewelflower were on the steep, west facing serpentine slopes in the northwest of the Site. Although small numbers of dudleya have been previously mapped on these slopes outside of the Site (CNDDDB occurrence numbers 38, 53, and 54 totaling approximately 450 plants), the observed extent and numbers of Santa Clara Valley dudleya were much greater on-site. Smaller areas of Metcalf Canyon jewelflower were also observed in large numbers. In total approximately 1,000 Santa Clara Valley dudleya and 2,000 Metcalf Canyon jewelflower were observed in this area.

3) The eastern portion of the Site on either side of Silver Creek also supported Santa Clara Valley dudleya and Metcalf Canyon jewelflower. These populations were previously unknown as they do not appear in the CNDDDB. Roughly 2,000 individuals of each species were observed in this portion of the Site in relatively few clusters.

WRA observed and mapped additional special-status (CNPS-listed) plant species during the 2009 focused surveys: Hall's bush mallow (*Malacothamnus hallii*, CNPS List 1B); Mount Hamilton thistle (*Cirsium fontinale* var. *campylon*, CNPS List 1B); and most beautiful jewelflower (*Streptanthus albidus* ssp. *peramoenus*, CNPS List 1B). WRA observed approximately 956 fragrant fritillary (*Fritillaria liliaceae*, CNPS List 1B) individuals during the March 1, 2010 focused surveys. WRA also observed approximately 23,330 smooth lessingia (*Lessingia micradenia* var. *glabrata*, CNPS List 1B) individuals during the July 14, 2011 focused rare plant surveys. Both the 2010 and 2011 plant surveys consisted of over 30 person-hours each.

### *Hall's bush mallow*

Hall's bush mallow is a perennial shrub associated with scrub or chaparral. Approximately 2,608 individuals of this species covering over 19 acres were mapped along the westernmost slopes of the Site (Table 2, Figure 3). WRA observed the majority of these plants in two large patches comprising many acres. The remainder of the plants consisted of sporadic patches, each with a few individuals. Associated plant species were California sage and black sage.

### *Mount Hamilton thistle*

Mount Hamilton thistle is a hydrophytic plant species adapted to serpentine seeps and perennially wet serpentine drainages. Given the large number of productive serpentine springs and associated drainages on-site, WRA commonly observed this plant. CNDDDB records indicate two occurrences of this species have been mapped on-site consisting of 12 discreet "colonies". WRA's field studies in 2009 revealed 12 distinct drainages that supported the species in addition to approximately another dozen isolated patches. In total there were 8,514 individuals estimated to occur in the Site occupying an area of just over 3 acres (Table 2, Figure 3).

### *Most beautiful jewelflower*

WRA observed approximately six individuals of the CNPS-listed most beautiful jewelflower in the Site. These occurred in two distinct patches in the southern third of the property and were occurring with Metcalf Canyon jewelflower (Table 2, Figure 3).

### *Fragrant fritillary*

WRA observed and mapped approximately 956 individuals of fragrant fritillary in the Site occupying approximately 2.3 acres of habitat in 2010 (Table 2, Figure 3). These individuals were found on relatively flat, aspect-neutral serpentine derived clay loam and clay soils near serpentine rock outcrops. Nineteen subpopulations within two condensed populations contained from 1 to 250 individuals. All populations were located and mapped along the ridgeline in the southern portion of the Site (see Appendix C).

### *Smooth lessingia*

WRA observed and mapped approximately 23,330 individuals of smooth lessingia within the Site occupying approximately 80.2 acres of habitat in 2011 (Table 2, Figure 3). These individuals were found on relatively flat to moderately sloping, generally east-, south- and west-facing slopes on thin soils derived from serpentine. Most populations were located and mapped in the southern portion of the Site. WRA observed only two small populations in the northern third of the Site (see Appendix C).

Although floristic in nature, rare plant surveys conducted have not been protocol-level for all species with potential to occur within the Site. The focus of the surveys were for the federal and CNPS-listed species previously known from or observed to occur onsite during WRA's various site visits there. Seven other special-status plant species may have potential to occur in the Site (Table 3) and are discussed further in Appendix B. Potential for these species remains even though they were not observed, either because the habitat in which they are known to occur was not surveyed, or because surveys were not conducted during the blooming period for that species.

Table 3. Special-status Plant Species with Potential to Occur in the Site, but were not Observed by WRA.

Species	Status	Potential for Occurrence	Habitat	Blooming Period
Bent-flowered fiddleneck ( <i>Amsinckia lunaris</i> )	CNPS List 1B.	Moderate Potential	Grassy openings in oak woodlands	March to June
Round-leaved filaree ( <i>California macrophylla</i> )	CNPS List 1B.	Moderate Potential	Valley and foothill grassland or open cismontane woodland habitats	March to May
Loma Prieta hoita ( <i>Hoita strobilina</i> )	CNPS List 1B.	Moderate Potential	Mesic areas with serpentinite features in chaparral, cismontane woodlands, and riparian woodlands	May to October
Showy golden madia ( <i>Madia radiata</i> )	CNPS List 1B.	Moderate Potential	Cismontane woodland and valley and foothill grassland	March to May
Arcuate bush-mallow ( <i>Malacothamnus arcuatus</i> )	CNPS List 1B.	Moderate Potential	Chaparral and cismontane woodland	April to September
Mt. Diablo phacelia ( <i>Phacelia phacelioides</i> )	CNPS List 1B.	Moderate Potential	Rocky areas of chaparral and cismontane woodlands	April through May
Rock sanicle ( <i>Sanicula saxitilis</i> )	CNPS List 1B.	Moderate Potential	Rocky soils in broadleaved upland forests, chaparral, and valley and foothill grassland	April to May

#### 4.2.2 Wildlife

Forty-four special-status species of wildlife have been recorded in the vicinity of the Site. Appendix B summarizes the potential for each of these species to occur in the Site. Eleven special-status wildlife species were observed in the Site during several site visits associated with bay checkerspot butterfly surveys (Table 4). Five other special-status wildlife species have a high potential to occur in the Site, while 17 species have a moderate potential to occur in the Site.

Table 4. Special-status Wildlife Species Observed in the Young Ranch Site.

Species	Status	Biological Community Associations
California tiger salamander <i>Ambystoma californiense</i>	Federal Threatened, State Threatened	Non-native Annual Grassland, Serpentine Bunchgrass Grassland, Wetlands, Waters
California red-legged frog <i>Rana draytonii</i>	Federal Threatened, CDFG Species of Special Concern	Riparian, Wetlands, Waters, and surrounding biological communities
bay checkerspot <i>Euphydryas editha bayensis</i>	Federal Threatened	Serpentine Bunchgrass Grassland
white-tailed kite <i>Elanus leucurus</i>	CDFG Fully Protected Species	Non-native Annual Grassland, Serpentine Bunchgrass Grassland, Mixed Oak Woodland, Riparian
golden eagle <i>Aquila chrysaetos</i>	CDFG Fully Protected Species, USFWS Bird of Conservation Concern	Non-native Annual Grassland, Serpentine Bunchgrass Grassland, Mixed Oak Woodland
northern harrier <i>Circus cyaneus</i>	CDFG Species of Special Concern	Non-native Annual Grassland, Serpentine Bunchgrass Grassland, Wetlands
burrowing owl <i>Athene cunicularia</i>	CDFG Species of Special Concern, USFWS Bird of Conservation Concern	Non-native Annual Grassland, Serpentine Bunchgrass Grassland
Nuttall's woodpecker <i>Picoides nuttallii</i>	USFWS Bird of Conservation Concern	Mixed Oak Woodland, Riparian
yellow-billed magpie <i>Pica nuttalli</i>	USFWS Bird of Conservation Concern	Mixed Oak Woodland, Riparian
oak titmouse <i>Baeolophus inornatus</i>	USFWS Bird of Conservation Concern	Scrub, Mixed Oak Woodland, Riparian
grasshopper sparrow <i>Ammodramus savannarum</i>	CDFG Species of Special Concern	Non-native Annual Grassland, Serpentine Bunchgrass Grassland

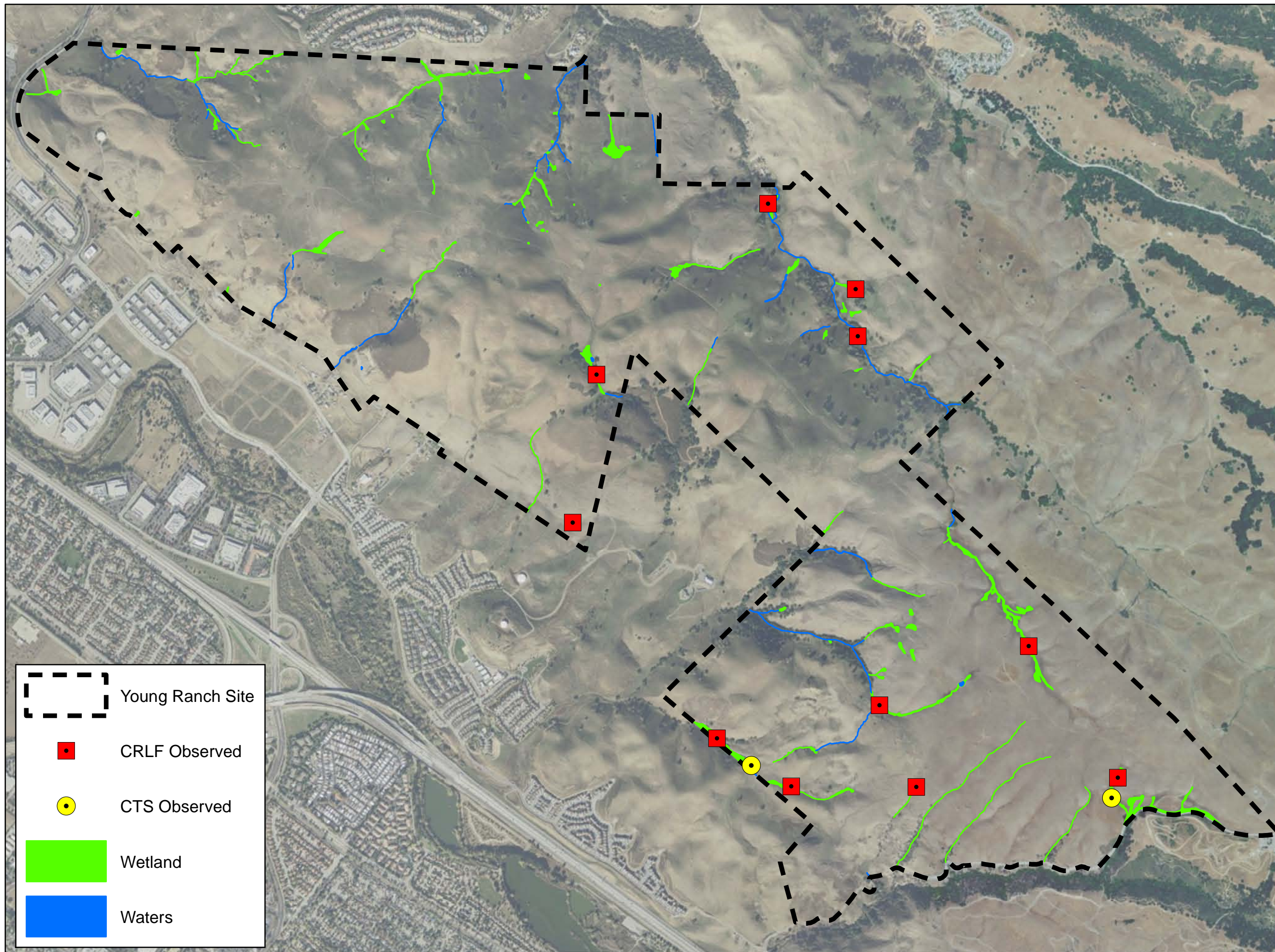
*Special-status Wildlife Species Observed within the Site*






Amphibians

**California tiger salamander (*Ambystoma californiense*), Federal Threatened Species, State Threatened Species.** California tiger salamander (CTS) is restricted to grasslands and low-elevation foothill regions in California (generally under 1500 feet) where it uses seasonal aquatic habitats for breeding. The salamanders breed in natural ephemeral pools, or ponds that mimic ephemeral pools (stock ponds that go dry), and perennial stock ponds. As adults, CTS spend most of their lives in upland burrows up to 2200 meters from breeding pools (USFWS 2004). They survive hot, dry summers by entering refugia (such as burrows created by ground squirrels and other mammals and deep cracks or holes in the ground) where the soil atmosphere remains near the water saturation point. During wet periods, the salamanders may emerge from refugia and feed in the surrounding grasslands. CTS is documented to occur in a pond that straddles the Site southwest property boundary with the neighboring parcel (CNDDDB occurrence # 563). One juvenile CTS was observed in a separate pond in the southeastern portion of the Site approximately 400 feet north of Metcalf Road (Figure 4).

Young Ranch  
Santa Clara County,  
California

Figure 4.  
Map of California  
Tiger Salamanders and  
California Red-legged Frogs  
Observed in the Site



	Young Ranch Site
	CRLF Observed
	CTS Observed
	Wetland
	Waters



0 600 1,200 2,400  
Feet

Date: November 2011  
Map by: Michael Rochelle  
Aerial: ESRI Imagery



**California red-legged frog (*Rana draytonii*), Federal Threatened Species, CDFG Species of Special Concern.** California red-legged frog (CRLF) is dependent on suitable aquatic, estivation, and upland habitat. During periods of wet weather, starting with the first rainfall in late fall, CRLF disperse away from their aestivation sites to seek suitable breeding habitat. Aquatic and breeding habitat is characterized by dense, shrubby, riparian vegetation and deep, still or slow-moving water. Breeding occurs between late November and late April. If surface water disappears, CRLF may enter a period of inactivity during the dry months in small mammal burrows, moist leaf litter, incised stream channels, and large cracks in the bottom of dried ponds.

CRLF have been incidentally observed at many of the stock ponds and has been documented breeding in upper Silver Creek (Figure 4). To date, no observations of CRLF have been made in the northwest one-third of the Site.

### Invertebrates

**Bay checkerspot butterfly (*Euphydryas editha bayensis*), Federal Threatened.** Historically, bay checkerspot butterfly (BCB) was widely distributed to the east, west, and south of San Francisco Bay, but is now limited to six core areas: one on the San Francisco peninsula, one in San Mateo County, and four in Santa Clara County. Habitat for this species is on shallow, serpentine-derived or similar soils. These soils support the primary larval host plant for this species, dwarf plantain (*Plantago erecta*). In many years, the primary host plant dries up before the larvae have sufficiently developed and the larvae transfer to a secondary host plant, purple owl's clover (*Castilleja exserta* spp. *exserta*), which remains available later in the season (Black and Vaughan 2005). Focused BCB surveys have been conducted at Young Ranch from 2008 through 2011. The butterflies primarily inhabit the serpentine grasslands in the southern third of the Site. A much smaller population occurs in the east/northeast of the Site in the serpentine grasslands on either side of upper Silver Creek. For more detailed information on this species, see WRA's Young Ranch Bay Checkerspot Butterfly Survey Report 2008-2011 (WRA 2011a).

### Birds

**White-tailed kite (*Elanus leucurus*), CDFG Fully Protected Species.** Kites occur in low elevation grassland, agricultural, wetland, oak woodland, and savanna habitats. Riparian zones adjacent to open areas are also used. Vegetative structure and prey availability seem to be more important than specific associations with plant species or vegetative communities. Lightly grazed or ungrazed fields generally support large prey populations and are often preferred to other habitats. Kites primarily feed on small mammals, although, birds, reptiles, amphibians, and insects are also taken. Nest trees range from single isolated trees to trees within large contiguous forests. Preferred nest trees are extremely variable, ranging from small shrubs (less than 10 ft. tall), to large trees (greater than 150 ft. tall). (Dunk 1995). This species has been observed on several occasions foraging and perched within the Site and there is potential for White-tailed kite to nest in the Site due to (1) the presence of suitable nesting sites adjacent to large areas of open foraging habitat, and (2) several documented occurrences within five miles of the Site (eBird 2011).

**Golden eagle (*Aquila chrysaetos*), CDFG Fully Protected Species, CDFG Species of Special Concern.** Golden eagle is found in open and semi-open areas from sea level to 3600 m elevation, in habitats including tundra, shrublands, grasslands, mixed woodlands, and coniferous forests. Golden eagle is usually found in mountainous areas, but it also nests in wetland, riparian and estuarine habitats (Kochert et al., 2002). This large raptor typically nests in large isolated trees or cliffs. Golden eagle forages over large areas, feeding primarily on

ground squirrels, rabbits, large birds, and carrion. Golden eagles have been observed flying over the Site, however it is unlikely that this species would nest on the Site.

**Northern harrier (*Circus cyaneus*), CDFG Species of Special Concern.** Harriers are residents of pen wetlands, including marshy meadows; wet, lightly grazed pastures; old fields; freshwater and brackish marshes. They also frequent also dry uplands, including upland prairies, mesic grasslands, drained marshlands, croplands, cold desert shrub-steppe, and riparian woodland throughout California (MacWhirter and Bildstein 1996). Harriers typically nest on ground in open (treeless) habitats in dense, often tall, vegetation. Harriers exhibit an extremely varied choice of vegetative cover, even within a single area. Grasslands and wetlands in the Site provide suitable foraging and nesting habitat. This species has been observed foraging in the Site during BCB surveys.

**Burrowing owl (*Athene cunicularia*), CDFG Species of Special Concern; USFWS Bird of Conservation Concern.** Burrowing owl typically favors flat, open grassland or gentle slopes and sparse-shrub land ecosystems. These owls prefer annual or perennial grasslands, typically with sparse or nonexistent tree or shrub canopies; however, they also colonize debris piles and old pipes. In California, burrowing owls are found in close association with California ground squirrels. Burrowing owls exhibit high site fidelity and usually use the abandoned burrows of ground squirrels for shelter and nesting. While owls were observed within the Site in March and April, follow-up surveys in June failed to detect fledglings at these burrow locations. WRA concludes that burrowing owls detected within the Site represent a wintering population or temporary spring occupancy and not a breeding population.

**Nuttall's woodpecker (*Picoides nuttallii*), USFWS Bird of Conservation Concern.** Nuttall's woodpecker is associated with wooded canyons and foothills, and riparian woodlands. In much of its range it is almost always found around oaks. This species is a permanent resident throughout its range, rarely wandering any distance from breeding areas (Kaufman 1996). This woodpecker has been regularly observed in the Site, where it is usually associated with mixed oak woodland and riparian corridors.

**Yellow-billed magpie (*Pica nuttallii*), USFWS Bird of Conservation Concern** Yellow-billed magpie is associated with riparian habitats, oak woodland and savanna, ranches, and agricultural areas. They are most numerous in open oak savanna and where riparian groves of oaks, cottonwoods, and sycamores border open country such as pastures and farmlands. This species occurs only in California, where surveys suggest slight population declines (Kaufman 1996). Magpies have been observed within the Site during bay checkerspot surveys.

**Oak titmouse (*Baeolophus inornatus*), Species of Local Concern.** The oak titmouse occurs in open woodlands of oak, pine and oak, and juniper and oak. The nest is built in woodpecker holes and natural cavities; titmice sometimes partially excavate their own cavity. This species is common in wooded portions of the Site.

**Grasshopper sparrow (*Ammodramus savannarum*) California Species of Special Concern.** Grasshopper sparrow is a California Species of Special Concern. This species generally prefers moderately open grasslands and prairies with patchy bare ground. They select different components of vegetation, depending on grassland ecosystem. This sparrow typically avoids grasslands with extensive shrub cover, although some level of shrub cover is important for birds in western regions (Vickery 1996). Grasshopper sparrows are ground-nesting birds. The nest cup is domed with overhanging grasses and a side entrance. Eggs are usually laid in early to mid-June and hatch 12 days later. Males and females provide care to the young and second broods are common. This species feeds primarily on insects (Vickery 1996).

Grasshopper sparrows are common inhabitants of non-native annual grasslands and serpentine bunchgrass habitats within the Site.

*Special-status Wildlife Species with a High Potential to Occur within the Site*

Mammals

**San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), CDFG Species of Special Concern.** This subspecies occurs in brushy habitat in riparian, chaparral and foothill woodlands around San Francisco Bay and the adjacent coastal ranges (Hafner et al. 1998). Woodrats often occupy habitats with both woodland and scrub components which provide cover and food sources, such as live oak, coffeeberry, blackberry, gooseberry, poison oak, and honeysuckle (Linsdale and Tevis 1951). Nests are typically over three feet in diameter and are constructed out of piled sticks, leaves and grasses. While nest structures for this species have not been observed during site visits, scrub, mixed oak woodland, and riparian communities within the Site provide suitable habitat for this dusky-footed woodrat subspecies; therefore, there is a high potential for occurrence.

**American badger (*Taxidea taxus*), CDFG Species of Special Concern.** Badgers occur in drier open stages of most scrub, forest, and herbaceous habitats where friable soils and prey populations are present. Although dens that appear to have been made by badgers have not been observed in the Site, badger have been observed a few miles east of the Site in the past few years. Therefore there is a high potential for this carnivore to occur in the Site because fossorial prey species are common, grassland habitat dominates the site, and the Site is easily accessible to the nearby documented occurrence.

Birds

**Allen's hummingbird (*Selasphorus sasin*), USFWS Bird of Conservation Concern.** This hummingbird is primarily a summer resident in the San Francisco Bay region. Breeding occurs in a variety of habitat types, but especially in riparian, oak woodland, and coastal scrub communities. Allen's hummingbirds feed on nectar from a variety of herbaceous and woody flowering plants, and they also eat small insects and spiders. The scrub and riparian communities within the Site provide suitable breeding habitat for this hummingbird. Because there have been several sightings within 10 miles of the Site (eBird 2011), there is a high potential for Allen's Hummingbird to occur.

**Prairie falcon (*Falco mexicanus*), CDFG Species of Special Concern.** This is an uncommon resident and migrant that ranges from southeastern deserts northwest along the Coast Ranges and Sierra Nevada. It occurs in many habitats, but typically is associated with grasslands, savannas, rangeland, agricultural areas, and desert scrub. This falcon typically nests on cliffs. There is a high potential for this falcon to forage in the Site. Although there have been several sightings within 10 miles of the site (eBird 2011), the prairie falcon probably does not nest within the Site due to the absence of suitable cliff habitat.

**Loggerhead shrike (*Lanius ludovicianus*), CDFG Species of Special Concern, USFWS Bird of Conservation Concern.** The loggerhead shrike is a common resident and winter visitor in lowlands and foothills throughout California. It prefers open habitats with scattered trees, shrubs, posts, fences, utility lines or other perches. Nests are usually built on a stable branch in a densely-foliaged shrub or small tree and are usually well-concealed. The highest densities occur in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian pinyon-juniper, juniper, and desert riparian habitats. While this species

eats mostly arthropods, they also take amphibians, small to medium-sized reptiles, small mammals and birds, and they are also known to scavenge on carrion. There is a high potential for this species to occur within the Site due to the presence of suitable foraging and nesting habitat.

*Special-status Wildlife Species with a Moderate Potential to Occur within the Site*

Mammals

**Pallid bat (*Antrozous pallidus*), CDFG Species of Special Concern, Western Bat Working Group (WBWG) High Priority.** Pallid bats are distributed from southern British Columbia and Montana to central Mexico, and east to Texas, Oklahoma, and Kansas. This species occurs in a number of habitats ranging from rocky arid deserts to grasslands, and into higher elevation coniferous forests. They are most abundant in the arid Sonoran life zones below 6,000 feet, but have been found up to 10,000 feet in the Sierra Nevada. Pallid bats often roost in colonies of between 20 and several hundred individuals. Roosts are typically in rock crevices, tree hollows, mines, caves, and a variety of man-made structures, including vacant and occupied buildings. Tree roosting has been documented in large conifer snags (e.g. ponderosa pine), inside basal hollows of redwoods and giant sequoias, and within bole cavities in oak trees. They have also been reported roosting in stacks of burlap sacks and stone piles. Pallid bats are primarily insectivorous, feeding on large prey that is taken on the ground, or sometimes in flight. Prey items include arthropods such as scorpions, ground crickets, and cicadas (WBWG 2010). There is a moderate potential for occurrence in the Site due to the presence of large oaks and some snags that may provide suitable day roost habitat for this species, but these roost habitats are limited to specific wooded areas on site. The Site does not appear to contain suitable hibernation roosts (cavern-like structures and buildings).

**Western red bat (*Lasiurus blossevillii*), WBWG High Priority.** This species is considered highly migratory, and broadly distributed, reaching from southern Canada, through much of the western United States. They are typically solitary, roosting primarily in the foliage of trees or shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas possibly and association with riparian habitat (particularly willows, cottonwoods, and sycamores). Although willows are present along some streams within the Site, the riparian habitat is fragmented. The absence of cottonwoods and sycamores reduces potential roost habitat; therefore, there is a moderate potential for occurrence of this species in riparian habitat of the Site only.

**Hoary bat (*Lasiurus cinereus*) California Species of Special Concern.** This species is most abundant in the forests and croplands of the plains states and in forests of the Pacific Northwest, and is also found in the forests of the eastern United States and the arid deserts of the Southwest (TPWD 2007). Diverse woodland habitats with a mixture of forest and small open areas that provide edges seem ideal for this species (TPWD 2007). This species has been found in Spanish moss, squirrel nests, woodpecker holes, and out in the open on the trunks of trees. Summer tree roosts are typically located along edge habitats close to feeding grounds. Most females rear young in deciduous trees, while males prefer to roost in conifers. Both sexes appear to prefer older trees as roosts, which they use for up to 5 weeks, and apparently provide greater safety (TPWD 2007). Small areas of oak woodland provide potential roost habitat for the hoary bat; however, because this habitat is limited within the Site, there is only a moderate potential for this bat to occur in the appropriate portions of the Site.

**Ringtail, (*Bassariscus astutus*), CDFG Fully Protected Species.** The ringtail is a widespread resident of California, excluding the Central Valley, south to Mexico. This species is

mostly carnivorous and mostly nocturnal. It is typically found in remote areas with trees, brush, and rock crevices for cover. It is often found in riparian forests or steep, rocky canyons. Although suitable habitat is present within the Site, there is only a moderate potential for occurrence due to the lack of recent documented occurrences in Santa Clara County. In addition, if present, this species would be limited to the riparian and woodland habitats of the Site.

## Birds

**Ferruginous hawk (*Buteo regalis*), CDFG Species of Special Concern; USFWS Bird of Conservation Concern.** Ferruginous hawk breeds in the semiarid grasslands of the Great Plains. This species is a winter visitor to California and occupies open terrain including grasslands, agricultural fields, and deserts. Grassland and arid areas of California, Arizona, and New Mexico are used heavily where prairie dogs, rabbits, or pocket gophers (*Thomomys* spp.) are abundant (Bechard and Schmutz 1995). Open grasslands within the Site provide suitable winter foraging habitat for the ferruginous hawk. According to sightings data, this species has a moderate potential to winter in the Site between October and March (eBird 2011).

**American peregrine falcon (*Falco peregrinus anatum*), CDFG Fully Protected Species.** The American peregrine falcon is a Federal Delisted, State Endangered, and California Fully Protected Species. Historical DDT contamination is the primary source of decline for this species. It winters throughout the Central Valley and occurs as a vagrant in a wide variety of habitats. The absence of suitable nesting habitat suggests that the peregrine falcon occurs on the Site only as a migrant or winter visitor; therefore, there is a moderate potential for this species to occur.

**Short-eared owl (*Asio flammeus*), CDFG Species of Special Concern.** The short-eared owl typically is found in tall grasslands and emergent wetlands. There have been scattered winter sightings of this owl in the Coyote Valley area (eBird 2011). The seasonal wetlands, annual grasslands and small shrubs found in the Site provide potentially suitable winter foraging habitat for this species. Because the Site provides minimal potential nesting habitat, there is only a moderate potential for the species to occur in limited portions of the Site.

**Long-eared owl (*Asio otus*), CDFG Species of Special Concern.** Nesting long-eared owls range from coastal lowlands to interior deserts and seem to prefer riparian groves, planted woodlots, and belts of live oaks paralleling streams (Shuford, 1993). Generally, this owl frequents dense, riparian and live oak thickets near meadow edges, and nearby woodland and forest habitats (Zeiner, et al., 1990). Although suitable mixed oak woodland is present in the Site, there is a moderate potential for occurrence based on its rarity in Santa Clara County.

**Vaux's swift (*Chaetura vauxi*), CDFG Species of Special Concern.** This bird is typically associated with redwood, douglas fir, and other coniferous forests. It nests in large hollow trees and snags, often in flocks. They forage over most terrains and habitats but show a preference for foraging over rivers and lakes. Vaux's swift is the smallest swift in North America. They let their body temperature drop and become torpid on cold nights, reviving in the warmth of day. Vaux's swifts descend into their roost tree essentially at once, spiraling down in a very dramatic rush at nightfall (Bull and Collins 1993). The Site does not provide typical nesting trees, however, the species likely occurs over the site during migration and post-breeding dispersal. There is a moderate potential for this species to occur in the Site.

**Rufous hummingbird (*Selasphorus rufus*), USFWS Bird of Conservation Concern.** The rufous hummingbird is a common migrant and uncommon summer resident in California. It

occurs in a wide variety of habitats as long as they provide abundant nectar sources. Based on occurrence data (eBird 2011), this hummingbird may migrate through the Site in March and April as it migrates north but likely does not nest here, therefore there is a moderate potential to occur.

**Lewis woodpecker (*Melanerpes lewis*), USFWS Bird of Conservation Concern.** Lewis's woodpecker is a resident or winter migrant in California, more commonly found in mountain ranchlands. Preferred habitats include open pine-oak woodlands and ponderosa pine woodland which are not present in the Site, and oak woodlands which are present. This species nests in loose colonies, often in dead tree stump or limb cavities. Because of this species' irregular migratory behavior, Lewis' woodpecker has a moderate potential to occur.

**Yellow warbler (*Dendroica petechia*), CDFG Species of Special Concern.** Yellow warbler breeds most commonly in wet, deciduous thickets, especially those dominated by willows, and in disturbed and early successional habitats (Lowther et al. 1999). This species is found between 100 to 2,700 meters elevation in California and at higher elevations along watercourses with riparian growth (Lowther et al. 1999). Yellow warbler populations have declined due to brood parasitism by brown-headed cowbirds (*Molothrus ater*) and habitat destruction. This species' diet is primarily comprised of insects supplemented with berries. Suitable nesting habitat is present along Silver Creek and where other dense willow-riparian habitat is present. However, this species is more likely to migrate through the Site than nest here so there is a moderate potential to occur.

**Saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*), USFWS Bird of Conservation Concern, CDFG Species of Special Concern.** This subspecies of the common yellowthroat is found in freshwater marshes, coastal swales, riparian thickets, brackish marshes, and saltwater marshes. Their breeding range extends from Tomales Bay in the north, Carquinez Strait to the east, and Santa Cruz County to the south. This species requires thick, continuous cover such as tall grasses, tule patches, or riparian vegetation down to the water surface for foraging and prefers willows for nesting. There is a moderate potential for this species to occur within the Site. This species likely occurs during migration and post-breeding dispersal. Scattered patches of riparian habitat and emergent vegetation provide limited breeding habitat.

**Tricolored blackbird (*Agelaius tricolor*), CDFG Species of Special Concern, USFWS Bird of Conservation Concern.** The tricolored blackbird is common locally in the Central Valley and along coastal California. This species breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs. It feeds in grassland and cropland habitats. This species is highly colonial; nesting habitat must be large enough to support a minimum of 30 pairs. This species probably occurs as a winter visitor. Small areas of dense emergent vegetation are unlikely to support a breeding colony; therefore the potential to occur is moderate.

**Lawrence's goldfinch (*Carduelis lawrencei*), USFWS Bird of Conservation Concern.** Lawrence's goldfinch is endemic to the arid woodlands of California and northern Baja. It inhabits oak woodlands, chaparral, riparian woodlands, pinyon-juniper associates, and weedy water during the breeding season. Lawrence's Goldfinch has a moderate potential to occur. This species is known to occur to the east of the Site in Santa Clara County (eBird 2011) and suitable habitat is present.

## Reptiles

**Western pond turtle (*Actinemys marmorata*), CDFG Species of Special Concern.** The western pond turtle (WPT) is the only native freshwater turtle in California. This turtle is uncommon to common in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest and Transverse Ranges. WPT inhabits annual and perennial aquatic habitats, such as coastal lagoons, lakes, ponds, marshes, rivers, and streams from sea level to 5,500 feet in elevation. WPT also occupies man-made habitats such as stock ponds, wastewater storage, percolation ponds, canals, and reservoirs. This species requires low-flowing or stagnant freshwater aquatic habitat with suitable basking structures, including rocks, logs, algal mats, mud banks and sand. Warm, shallow, nutrient-rich waters are ideal as they support WPT prey items, which include aquatic invertebrates and occasionally fish, carrion, and vegetation. Turtles require suitable aquatic habitat for most of the year; however, WPT often occupies creeks, rivers, and coastal lagoons that become seasonally unsuitable. To escape periods of high water flow, high salinity, or prolonged dry conditions, WPT may move upstream and/or take refuge in vegetated, upland habitat for up to four months (Rathbun et al. 2002). Although upland habitat is utilized for refuging and nesting, this species preferentially utilizes aquatic and riparian corridors for movement and dispersal.

The WPT nests from late April through July. This species requires open, dry upland habitat with friable soils for nesting and prefer to nest on unshaded slopes within 5 to 100 meters of suitable aquatic habitat (Rathbun et al. 1992). Females venture from water for several hours in the late afternoon or evening during the nesting season to excavate a nest, lay eggs, and bury the eggs to incubate and protect them. Nests are well-concealed, though native mammals are occasionally able to locate and predate upon eggs. Hatchlings generally emerge in late fall but may overwinter in the nest and emerge in early spring of the following year. Although WPT has not been observed onsite, the Site supports suitable habitat for this species in and adjacent to the larger stock ponds in the southern portion of the Site.

**Coast horned lizard (*Phrynosoma blainvillii*), CDFG Species of Special Concern.** The California horned lizard seems to occur in several habitat types, ranging from areas with an exposed sandy-gravelly substrate containing scattered shrubs, to clearings in riparian woodlands, to dry uniform chamise chaparral to annual grassland (Jennings and Hayes 1994). scrub habitat within the Site may provide habitat for this species.

## **5.0 SUMMARY**

Four sensitive plant communities (serpentine bunchgrass grassland, mixed oak woodland, riparian woodland and wetlands and waters) were identified within the Site. Seven special-status plant species have been observed within the Site, and seven special-status plant species have a moderate potential to occur in the Site. Eleven special-status wildlife species have been observed within the Site, five special-status wildlife species have a high potential to occur in the Site, and 17 special-status wildlife species have a low to moderate potential to occur in the Site. The following sections present summaries of sensitive communities and special-status species and potential future studies, actions, or permit requirements.

### **5.1 Sensitive Biological Communities**

Most of the Site is comprised of non-native annual grassland, which is not a sensitive biological community. However, the Site does contain 19 acres of wetlands and 4 acres of waters potentially within the jurisdiction of the Corps under Section 404 of the Clean Water Act and

RWQCB under the Porter Cologne Act and Section 401 of the Clean Water Act. In addition, 23 acres of riparian habitat are present within the Site. Riparian habitat is regulated by the CDFG. The Site contains 655 acres of serpentine bunchgrass grassland and 56 acres of mixed oak woodlands, sensitive communities under CEQA. These sensitive communities total 757 acres or roughly 35% of the site acreage, predominantly located in the southern third and along the southwest and eastern edges of the northern two-thirds of the Site.

Impacts to these sensitive resources may need permits or may require further analysis under CEQA. Impacts to jurisdictional wetlands and waters may need a Section 404 permit from the Corps and a Section 401 Water Quality Certification from the RWQCB. If impacts to streams or riparian habitat are proposed, a Section 1602 Streambed Alteration Permit from the CDFG may be needed. If wetlands and/or waters are impacted, they usually must be mitigated. Mitigation may be achieved through the purchase of wetland credits at an approved wetland mitigation bank (if available), on-site wetland mitigation, or payment into an in-lieu fee program to benefit a regional wetland creation or enhancement program.

## **5.2 Special-status Plant Species**

Of the 35 special-status plant species that have been documented in the vicinity of the Site, seven have been observed onsite during several floristic-level rare plant surveys conducted in 2009, 2010 and 2011 (See Table 2 in Section 4.2.1 and Figure 3). Rare plant surveys conducted within the Site focused on habitat known to support federally-listed Metcalf Canyon jewelflower and Santa Clara Valley dudleya and CNPS-Listed fragrant fritillary and smooth lessingia, including serpentine bunchgrass grassland and serpentine rock outcrops, and areas within non-native annual grassland underlain by thin, serpentinite soils. Three other special-status plant species (most beautiful jewelflower, Mt. Hamilton thistle and Hall's bush mallow, Table 2) were observed incidentally during the focused surveys and mapped.

The rare plant surveys did not target oak or riparian woodland, as target species do not occur in those habitats. However, seven other special-status plant species may occur within oak or riparian woodland (see Table 3 and Appendix C), and were determined to have a moderate potential to occur in those portions of the Site. Therefore, if these habitats may be impacted, appropriately-timed floristic level surveys may be necessary within oak and riparian woodland to confirm or disconfirm the presence of these species within the proposed disturbance area.

If project disturbance has the potential to impact sensitive plant species, further studies and mitigation may be necessary. If federal-listed species have the potential to be impacted, consultation with the U.S. Fish and Wildlife Service may be necessary. Impacts to plant species may necessitate a Habitat Mitigation and Monitoring Plan to demonstrate how impacts to special-status plant species will be mitigated.

## **5.3 Special-status Wildlife Species**

Of the 44 special-status species of wildlife recorded in the vicinity of the Site, 11 special-status wildlife species have been documented in the Site, five special-status wildlife species have a high potential to occur, and 17 species have a moderate potential to occur. Three of the 44 special-status wildlife species are well documented throughout the Site: bay checkerspot butterfly, California red-legged frog, and burrowing owl. Detections of these species were made during focused BCB surveys and incidental observations.

As previously mentioned, California tiger salamander has been documented on-site, however, because of their nocturnal and seasonal activity patterns, the distribution of this species within



the Site is poorly understood. Protocol-level surveys within 7,218 feet (2,200 meters) of proposed ground disturbance are recommended to prevent take of CTS (USFWS 2004). If CTS are discovered, additional actions may be required by the USFWS to determine dispersal corridors and identify restoration or preservation opportunities. Alternatively, presence of CTS may be presumed and appropriate mitigation measures may be taken.

If any impacts are proposed to habitats occupied or potentially occupied by CTS, CRLF or BCB, consultation with the USFWS will likely be required. This may result in using appropriate mitigation measures for these species such as compliance with seasonal work windows, pre-construction surveys, the use of exclusion fencing, and biological monitoring. Compensatory mitigation may be required for impacts to potentially occupied habitat if the HCP is not implemented.

Seven special-status avian species have been detected within the Site, and 14 additional special-status bird species have potential to occur. Although focused breeding bird surveys have not been performed, nearly every habitat community within the Site has the potential to provide nesting habitat for various special-status and non-special-status bird species protected by the MBTA. If ground disturbance or vegetation removal is required, pre-construction breeding bird surveys may be required within and adjacent to the limit of disturbance.

Three special-status bat species have a moderate potential to occur within the Site. Removal of trees or snags and demolition of rocky outcrops could potentially impact roosting special-status bat species. Prior to the commencement of these activities, pre-construction roost surveys within and up to 250 feet from the limit of disturbance, installation of exclusionary devices, consultation with CDFG, or compliance with work windows may be required.

Pre-construction surveys for ringtail, American badger, western pond turtle and Blainville's horned lizard may be required prior to grading activities within and up to 250 feet from the limit of disturbance.

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APPENDIX A

LIST OF OBSERVED PLANT AND WILDLIFE SPECIES



Appendix A. Plant species observed at Young Ranch during field work conducted by WRA between 2008 and 2011. Bold denotes native species.

Scientific Name	Common Name
<b>PLANTS</b>	
<b><i>Achillea millefolium</i></b>	<b>common yarrow</b>
<b><i>Achyrachaena mollis</i></b>	<b>blow wives</b>
<i>Aegilops triuncialis</i>	barbed goat grass
<b><i>Aesculus californica</i></b>	<b>California buckeye</b>
<b><i>Agoseris grandiflora</i></b>	<b>California dandelion</b>
<b><i>Agoseris heterophylla</i></b>	<b>annual mountain dandelion</b>
<b><i>Allium serra</i></b>	<b>jeweled onion</b>
<b><i>Amsinckia menziesii</i> var. <i>intermedia</i></b>	<b>fiddleneck</b>
<i>Anagallis arvensis</i>	scarlet pimpernel
<i>Anthriscus caucalis</i>	bur chervil
<b><i>Antirrhinum vexillo-calyculatum</i> ssp. <i>vexillo-calyculatum</i></b>	<b>wiry snapdragon</b>
<b><i>Arctostaphylos glauca</i></b>	<b>bigberry manzanita</b>
<b><i>Artemisia californica</i></b>	<b>California sagebrush</b>
<b><i>Asclepias fascicularis</i></b>	<b>narrowleaf milkweed</b>
<b><i>Astragalus gambelianus</i></b>	<b>Gambel's dwarf milkvetch</b>
<i>Avena barbata</i>	slender wild oat
<b><i>Baccharis pilularis</i></b>	<b>coyote brush</b>
<i>Bellardia trixago</i>	Mediterranean linseed
<i>Brassica nigra</i>	black mustard
<b><i>Brodiaea elegans</i> ssp. <i>elegans</i></b>	<b>harvest brodiaea</b>
<b><i>Bromus carinatus</i> var. <i>carinatus</i></b>	<b>California brome</b>
<i>Bromus diandrus</i>	rip-gut brome
<i>Bromus hordeaceus</i>	soft chess
<i>Bromus madritensis</i>	foxtail brome
<b><i>Calandrinia ciliata</i></b>	<b>red maids</b>
<b><i>Calochortus venustus</i></b>	<b>butterfly mariposa lily</b>
<b><i>Calystegia collina</i> ssp. <i>collina</i></b>	<b>hillside morning glory</b>
<b><i>Camissonia graciliflora</i></b>	<b>hillside suncup</b>
<i>Capsella bursa-pastoris</i>	shepherd's purse

Appendix A. Plant species observed at Young Ranch during field work conducted by WRA between 2008 and 2011. Bold denotes native species.

<b>Scientific Name</b>	<b>Common Name</b>
<i>Cardaria draba</i>	hoary cress
<b>Carex serratodens</b>	<b>two tooth sedge</b>
<i>Carduus pycnocephalus</i>	Italian thistle
<b>Castilleja densiflora ssp. densiflora</b>	<b>owl's clover</b>
<b>Castilleja exserta ssp. exserta</b>	<b>purple owl's clover</b>
<b>Castilleja rubicundula ssp. lithospermoides</b>	<b>cream sacs</b>
<i>Centaurea calcitrapa</i>	purple star thistle
<i>Centaurea solstitialis</i>	yellow star thistle
<b>Cercocarpus betuloides</b>	<b>mountain mahogany</b>
<b>Chaenactis glabriuscula</b>	<b>yellow pincushion</b>
<i>Chamaesyce maculata</i>	spurge
<i>Chamomilla suaveolens</i>	pineapple weed
<b>Chlorogalum pomeridianum</b>	<b>soap plant</b>
<b>Cirsium fontinale var. campylon</b>	<b>Mt. Hamilton thistle</b>
<i>Cirsium vulgare</i>	bull thistle
<b>Clarkia affinis</b>	<b>chaparral clarkia</b>
<b>Clarkia purpurea ssp. quadrivulnera</b>	<b>winecup clarkia</b>
<b>Clarkia rubicunda</b>	<b>farewell to spring</b>
<b>Clarkia unguiculata</b>	<b>elegant clarkia</b>
<b>Claytonia gypsophiloides</b>	<b>gypsum spring beauty</b>
<b>Claytonia perfoliata</b>	<b>miner's lettuce</b>
<b>Collinsia heterophylla</b>	<b>Chinese houses</b>
<i>Cotula coronopifolia</i>	brass buttons
<b>Crassula connata</b>	<b>pygmy weed</b>
<i>Crepis vesicaria ssp. taraxacifolia</i>	weedy hawkbeard
<i>Cynara cardunculus</i>	artichoke thistle
<b>Cryptantha flaccida</b>	<b>flaccid cryptantha</b>
<b>Cuscuta californica</b>	<b>chaparral dodder</b>
<i>Cynara cardunculus</i>	artichoke thistle
<i>Cynodon dactylis</i>	Bermuda grass
<b>Cynoglossum grande</b>	<b>hound's tongue</b>



Appendix A. Plant species observed at Young Ranch during field work conducted by WRA between 2008 and 2011. Bold denotes native species.

Scientific Name	Common Name
<b><i>Cyperus eragrostis</i></b>	<b>tall flatsedge</b>
<b><i>Delphinium hesperium ssp. hesperium</i></b>	<b>foothill larkspur</b>
<b><i>Dichelostemma capitatum</i></b>	<b>blue dicks</b>
<i>Dittrichia graveolens</i>	stinkweed
<b><i>Dodecatheon hendersonii</i></b>	<b>shooting star</b>
<b><i>Dudleya setchellii</i></b>	<b>Santa Clara Valley dudleya</b>
<b><i>Eleocharis macrostachya</i></b>	<b>common spikerush</b>
<b><i>Elymus multisetus</i></b>	<b>big squirreltail</b>
<i>Ephedra sp.</i>	ephedra
<b><i>Epilobium brachycarpum</i></b>	<b>willowherb</b>
<b><i>Epilobium canum</i></b>	<b>California fuschia</b>
<b><i>Epilobium ciliatum</i></b>	<b>slender willowherb</b>
<b><i>Eremocarpus settigarus</i></b>	<b>turkey mullein</b>
<b><i>Erigeron philadelphicus</i></b>	<b>Philadelphia fleabane</b>
<b><i>Eriogonum nudum</i></b>	<b>naked buckwheat</b>
<b><i>Eriogonum sp.</i></b>	<b>buckwheat</b>
<i>Erodium botrys</i>	storks bill
<i>Erodium cicutarium</i>	redstem filaree
<b><i>Eriophyllum confertiflorum</i></b>	<b>golden yarrow</b>
<b><i>Eschscholzia californica</i></b>	<b>California poppy</b>
<i>Eucalyptus sp.</i>	eucalyptus
<i>Euphorbia spathulata</i>	warty spurge
<i>Ficus carica</i>	common fig
<i>Filago gallica</i>	filago
<b><i>Fritillaria liliacea</i></b>	<b>fragrant fritillary</b>
<b><i>Galium aparine</i></b>	<b>common beadstraw</b>
<b><i>Galium porrigens</i></b>	<b>climbing bedstraw</b>
<i>Geranium molle</i>	dove-foot geranium
<i>Geranium dissectum</i>	cutleaf geranium
<b><i>Gilia achillefolia ssp. achillefolia</i></b>	<b>California gilia</b>
<b><i>Gilia tricolor</i></b>	<b>tricolor gilia</b>

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<b>Scientific Name</b>	<b>Common Name</b>
<i>Gnaphalium</i> sp.	cudweed
<b><i>Grindelia hirsutula</i></b>	<b>hairy gumweed</b>
<b><i>Guillenia lasiophylla</i></b>	<b>California mustard</b>
<i>Helenium</i> sp.	sneezeweed
<b><i>Heliotropium curassavicum</i></b>	<b>heliotrope</b>
<b><i>Heteromeles arbutifolia</i></b>	<b>toyon</b>
<b><i>Hemizonia congesta</i> ssp. <i>luzulifolia</i></b>	<b>hayfield tarweed</b>
<b><i>Hesperevax acaulis</i> var. <i>ambusticola</i></b>	<b>fire evax</b>
<b><i>Hesperevax sparsiflora</i> var. <i>sparsiflora</i></b>	<b>few-flowered evax</b>
<b><i>Heterotheca grandiflora</i></b>	<b>telegraph weed</b>
<b><i>Hordeum brachyantherum</i></b>	<b>California barley</b>
<i>Hordeum marinum</i>	Mediterranean barley
<i>Hordeum murinum</i>	mouse barley
<i>Hypochaeris radicata</i>	hairy cat's ear
<b><i>Juglans californica</i></b>	<b>California walnut</b>
<b><i>Juncus bufonius</i></b>	<b>toad rush</b>
<b><i>Juncus effusus</i></b>	<b>bog rush</b>
<b><i>Juncus patens</i></b>	<b>rush</b>
<b><i>Juncus phaeocephalus</i></b>	<b>brownheaded rush</b>
<b><i>Juncus xiphioides</i></b>	<b>iris-leaved rush</b>
<b><i>Koeleria macrantha</i></b>	<b>June grass</b>
<i>Lactuca saligna</i>	narrow leafed wild lettuce
<i>Lamarckia aurea</i>	goldentop grass
<b><i>Lasthenia californica</i></b>	<b>goldfields</b>
<b><i>Lathyrus vestitus</i></b>	<b>common Pacific pea</b>
<b><i>Layia platyglossa</i></b>	<b>tidy tips</b>
<i>Lemna</i> sp.	duckweed
<i>Lepidium latifolium</i>	perennial pepperweed
<b><i>Lepidium nitidum</i></b>	<b>shiny pepperweed</b>
<b><i>Lessingia hololeuca</i></b>	<b>wooly lessingia</b>
<b><i>Lessingia micradenia</i> var. <i>glabrata</i></b>	<b>smooth lessingia</b>

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Scientific Name	Common Name
<b><i>Leptosiphon grandiflorus</i></b>	<b>large-flowered linanthus</b>
<b><i>Leptosiphon serrulatus</i></b>	<b>Madera linanthus</b>
<i>Lewisia rediviva</i>	bitter root
<i>Lolium multiflorum</i>	Italian rye-grass
<b><i>Lomatium utriculatum</i></b>	<b>lomatium</b>
<b><i>Lonicera interrupta</i></b>	<b>chaparral honeysuckle</b>
<i>Lotus corniculatus</i>	bird's foot trefoil
<b><i>Lotus micranthus</i></b>	<b>trefoil</b>
<b><i>Lotus wrangelianus</i></b>	<b>Chilean bird's-foot trefoil</b>
<b><i>Lupinus bicolor</i></b>	<b>miniature lupine</b>
<b><i>Lupinus microcarpus</i> var. <i>densiflorus</i></b>	<b>chick lupine</b>
<b><i>Lupinus microcarpus</i> var. <i>microcarpus</i></b>	<b>valley lupine</b>
<b><i>Lupinus nanus</i></b>	<b>sky lupine</b>
<b><i>Lupinus succulentus</i></b>	<b>arroyo lupine</b>
<i>Lythrum hyssopifolium</i>	hyssop loosestrife
<b><i>Madia gracilis</i></b>	<b>slender tarweed</b>
<b><i>Malacothamnus hallii</i></b>	<b>Hall's bush mallow</b>
<b><i>Marah fabaceus</i></b>	<b>California wild cucumber</b>
<i>Marrubium vulgare</i>	horehound
<i>Medicago polymorpha</i>	bur clover
<b><i>Melica californica</i></b>	<b>California melic</b>
<b><i>Melica imperfecta</i></b>	<b>small-flowered melic grass</b>
<i>Melilotus indica</i>	yellow sweet clover
<i>Micropus californicus</i>	cottonweed
<b><i>Minuartia douglasii</i></b>	<b>Douglas' sandwort</b>
<b><i>Mimulus aurantiacus</i></b>	<b>sticky monkeyflower</b>
<b><i>Mimulus guttatus</i></b>	<b>monkeyflower</b>
<b><i>Monardella douglasii</i> ssp. <i>douglasii</i></b>	<b>Douglas' monardella</b>
<b><i>Monolopia gracilens</i></b>	<b>woodland monolopia</b>
<b><i>Muilla maritima</i></b>	<b>common muilla</b>
<b><i>Nasella pulchra</i></b>	<b>purple needle grass</b>

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Scientific Name	Common Name
<b><i>Oenante sarmentosa</i></b>	<b>water parsely</b>
<i>Opuntia sp.</i>	pricklypear cactus
<b><i>Orobanche fasciculata</i></b>	<b>clustered broom rape</b>
<b><i>Pellaea andromedifolia</i></b>	<b>coffee fern</b>
<b><i>Phaecelia ramosissima var. ramosissima</i></b>	<b>branching phaecelia</b>
<i>Phalaris sp.</i>	canarygrass
<b><i>Phoradendron villosum</i></b>	<b>oak mistletoe</b>
<i>Picris echioides</i>	bristly ox-tongue
<b><i>Pinus radiata</i></b>	<b>Monterey pine</b>
<b><i>Plagiobothrys canescens</i></b>	<b>valley popcorn flower</b>
<b><i>Plagiobothrys nothofolvus</i></b>	<b>rusty popcorn flower</b>
<b><i>Plantago erecta</i></b>	<b>dwarf plantain</b>
<i>Plantago major</i>	common plantain
<i>Plantago lanceolata</i>	English plantain
<b><i>Platystemon californicus</i></b>	<b>cream cups</b>
<i>Polygonum arenastrum</i>	perennial knotweed
<i>Polygonum convolvulus</i>	black bindweed
<i>Polypogon monspeliensis</i>	rabbit's foot grass
<b><i>Populus fremontii ssp. fremontii</i></b>	<b>Fremont cottonwood</b>
<b><i>Prunus ilicifolia</i></b>	<b>holly-leaf cherry</b>
<b><i>Psilocarphus tenellus var. tenellus</i></b>	<b>slender wooly heads</b>
<b><i>Quercus agrifolia</i></b>	<b>coast live oak</b>
<b><i>Quercus douglasii</i></b>	<b>blue oak</b>
<b><i>Quercus durata var. durata</i></b>	<b>leather oak</b>
<b><i>Quercus garryana</i></b>	<b>Oregon white oak</b>
<b><i>Quercus ilex</i></b>	<b>holly oak</b>
<b><i>Quercus kelloggii</i></b>	<b>black oak</b>
<b><i>Quercus lobata</i></b>	<b>valley oak</b>
<b><i>Ranunculus californicus</i></b>	<b>California buttercup</b>
<b><i>Ranunculus hebecarpus</i></b>	<b>pubescent fruited buttercup</b>
<b><i>Rhamnus californica ssp. californica</i></b>	<b>California coffeeberry</b>

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Scientific Name	Common Name
<b><i>Ribes californicum</i></b>	<b>California gooseberry</b>
<b><i>Rigiopappus leptocladus</i></b>	<b>wireweed</b>
<b><i>Rorippa nasturtium-aquaticum</i></b>	<b>watercress</b>
<b><i>Rosa sp.</i></b>	<b>rose</b>
<i>Rubus discolor</i>	Himalayan blackberry
<b><i>Rubus ursinus</i></b>	<b>California blackberry</b>
<i>Rumex acetosella</i>	sheep sorrel
<i>Rumex crispus</i>	curly dock
<i>Rumex pulcher</i>	fiddle dock
<b><i>Salix sp.</i></b>	<b>willow</b>
<i>Salsola tragus</i>	prickly Russian thistle
<b><i>Salvia columbariae</i></b>	<b>chia</b>
<b><i>Salvia mellifera</i></b>	<b>black sage</b>
<b><i>Sambucus mexicana</i></b>	<b>blue elderberry</b>
<b><i>Sanicula bipinnatifida</i></b>	<b>purple sanicle</b>
<b><i>Sanicula crassicaulis</i></b>	<b>Pacific sanicle</b>
<i>Scandix pecten-veneris</i>	Venus' needle
<i>Schinus molle</i>	peppertree
<b><i>Schoenoplectus californica</i></b>	<b>California bulrush</b>
<b><i>Scrophularia californica</i></b>	<b>California figwort</b>
<b><i>Sequoia sempervirens</i></b>	<b>redwood</b>
<b><i>Sidalcea malvaeflora ssp. laciniata</i></b>	<b>dwarf checkerbloom</b>
<i>Silene gallica</i>	windmill pink
<i>Silybum marianum</i>	milk thistle
<b><i>Sisyrinchium bellum</i></b>	<b>blue-eyed grass</b>
<b><i>Solanum umbelliferum</i></b>	<b>blue witch nightshade</b>
<i>Sonchus asper</i>	spiny sow thistle
<i>Sonchus oleraceus</i>	common sow thistle
<b><i>Stachys bullata</i></b>	<b>hedge nettle</b>
<b><i>Streptanthus albidus ssp. albidus</i></b>	<b>Metcalf Canyon jewelflower</b>
<b><i>Streptanthus albidus ssp. peramoenus</i></b>	<b>most beautiful jewelflower</b>

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<b>Scientific Name</b>	<b>Common Name</b>
<b><i>Symphoricarpos mollis</i></b>	<b>creeping snowberry</b>
<b><i>Toxicodendron diversilobum</i></b>	<b>poison oak</b>
<i>Tragopogon porrifolius</i>	purple salsify
<b><i>Trichostema lanceolatum</i></b>	<b>vinegarweed</b>
<b><i>Trifolium albopurpureum</i> var. <i>albopurpureum</i></b>	<b>Indian clover</b>
<b><i>Trifolium albopurpureum</i> var. <i>dichotomum</i></b>	<b>branched Indian clover</b>
<b><i>Trifolium bifidum</i> var. <i>bifidum</i></b>	<b>Pinole clover</b>
<i>Trifolium campestre</i>	hop clover
<b><i>Trifolium ciliolatum</i></b>	<b>tree clover</b>
<i>Trifolium fragiferum</i>	strawberry clover
<b><i>Trifolium fucatum</i></b>	<b>sour clover</b>
<b><i>Trifolium gracilentum</i> var. <i>gracilentum</i></b>	<b>pinpoint clover</b>
<b><i>Trifolium hirtum</i></b>	<b>rose clover</b>
<b><i>Trifolium microcephalum</i></b>	<b>smallhead clover</b>
<i>Trifolium subterraneum</i>	subterranean clover
<b><i>Trifolium variegatum</i></b>	<b>white-tipped clover</b>
<b><i>Trifolium wildenovii</i></b>	<b>tomcat clover</b>
<b><i>Triteleia laxa</i></b>	<b>Ithuriel's spear</b>
<b><i>Triphysaria eriantha</i> ssp. <i>eriantha</i></b>	<b>Johnny tuck</b>
<b><i>Triphysaria pusilla</i></b>	<b>dwarf owl's clover</b>
<b><i>Typha latifolia</i></b>	<b>cattail</b>
<b><i>Umbellularia californica</i></b>	<b>California bay</b>
<b><i>Urtica dioica</i></b>	<b>stinging nettle</b>
<b><i>Urtica urens</i></b>	<b>dwarf nettle</b>
<b><i>Verbena lasiostachys</i></b>	<b>common vervain</b>
<b><i>Viola pedunculata</i></b>	<b>Johnny-jump-up</b>
<i>Vulpia bromoides</i>	six weeks fescue
<b><i>Vulpia microstachys</i></b>	<b>small fescue</b>
<i>Vulpia myuros</i>	rat-tail fescue
<b><i>Xanthium strumarium</i></b>	<b>cocklebur</b>

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<b>Common Name (status if applicable)</b>	<b>Species</b>
<b>MAMMALS</b>	
Desert Cottontail	<i>Sylvilagus audubonii</i>
California Ground Squirrel	<i>Spermophilus beecheyi</i>
Botta's Pocket Gopher	<i>Thomomys bottae</i>
Coyote	<i>Canis latrans</i>
Bobcat	<i>Lynx rufus</i>
Elk	<i>Cervus elaphus</i>
Mule Deer	<i>Odocoileus hemionus</i>
<b>BIRDS</b>	
Canada Goose	<i>Branta canadensis</i>
Mallard	<i>Anas platyrhynchos</i>
Wild Turkey	<i>Meleagris gallopavo</i>
California Quail	<i>Callipepla californica</i>
Turkey Vulture	<i>Cathartes aura</i>
Golden Eagle (CDFG Fully Protected, USFWS Bird of Conservation Concern)	<i>Aquila chrysaetos</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Northern Harrier (CDFG Species of Special Concern)	<i>Circus cyaneus</i>
American Kestrel	<i>Falco sparverius</i>
Killdeer	<i>Charadrius vociferus</i>
Burrowing Owl (CDFG Species of Special Concern, USFWS Bird of Conservation Concern)	<i>Athene cunicularia</i>
Rock Dove	<i>Columba livia</i>
Mourning Dove	<i>Zenaida macroura</i>
White-throated Swift	<i>Aeronautes saxatalis</i>
Anna's Hummingbird	<i>Calypte anna</i>
Red-breasted Sapsucker	<i>Sphyrapicus ruber</i>
Acorn Woodpecker	<i>Melanerpes formicivorus</i>
Nuttall's Woodpecker (USFWS Bird of Conservation Concern)	<i>Picoides nuttallii</i>
Western Kingbird	<i>Tyrannus verticalis</i>
Black Phoebe	<i>Sayornis nigricans</i>
Western Scrub-jay	<i>Aphelocoma californica</i>
Steller's Jay	<i>Cyanocitta stelleri</i>
American Crow	<i>Corvus brachyrhynchos</i>

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<b>Common Name (status if applicable)</b>	<b>Species</b>
Common Raven	<i>Corvus corax</i>
Yellow-billed Magpie (USFWS Bird of Conservation Concern)	<i>Pica nuttalli</i>
Warbling Vireo	<i>Vireo gilvus</i>
Horned Lark	<i>Eremophila alpestris</i>
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>
Violet-green Swallow	<i>Tachycineta thalassina</i>
Tree Swallow	<i>Tachycineta bicolor</i>
Barn Swallow	<i>Hirundo rustica</i>
White-breasted Nuthatch	<i>Sitta carolinensis</i>
Oak Titmouse (USFWS Bird of Conservation Concern)	<i>Baeolophus inornatus</i>
Bewick's Wren	<i>Thryomanes bewickii</i>
Rock Wren	<i>Salpinctes obsoletus</i>
American Robin	<i>Turdus migratorius</i>
Western Bluebird	<i>Sialia mexicana</i>
Wrentit	<i>Chamaea fasciata</i>
Northern Mockingbird	<i>Mimus ployglottos</i>
European Starling	<i>Sturnus vulgaris</i>
Orange-crowned Warbler	<i>Oreothlypis celata</i>
Yellow-rumped Warbler	<i>Dendroica coronata</i>
Wilson's Warbler	<i>Wilsonia pusilla</i>
Spotted Towhee	<i>Pipilo maculatus</i>
Savannah Sparrow	<i>Passerculus sandwichensis</i>
Song Sparrow	<i>Melospiza melodia</i>
Grasshopper Sparrow (CDFG Species of Special Concern)	<i>Ammodramus savannarum</i>
Rufous-crowned Sparrow	<i>Aimophila ruficeps</i>
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>
Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>
Lark Sparrow	<i>Chondestes grammacus</i>
Dark-eyed Junco	<i>Junco hyemalis</i>
Red-winged Blackbird	<i>Agelaius phoeniceus</i>
Bullock's Oriole	<i>Icterus bullockii</i>
Hooded Oriole	<i>Icterus cucullatus</i>
Western Meadowlark	<i>Sturnella neglecta</i>



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American Goldfinch	<i>Carduelis tristis</i>
Lesser Goldfinch	<i>Carduelis psaltria</i>
House Finch	<i>Carpodacus mexicanus</i>
<b>REPTILES</b>	
Western Fence Lizard	<i>Sceloporus occidentalis</i>
Western Skink	<i>Eumeces skiltonianus</i>
Diablo Range Garter Snake	<i>Thamnophis atratus zaxanthus</i>
<b>AMPHIBIANS</b>	
California Tiger Salamander (Federal Threatened; State Threatened)	<i>Ambystoma californiense</i>
Sierra Treefrog	<i>Pseudacris sierrae</i>
California Red-legged Frog (Federal Threatened)	<i>Rana draytonii</i>
Western Toad	<i>Bufo boreas</i>
<b>BUTTERFLIES and MOTHS</b>	
Bay Checkerspot (Federal Threatened)	<i>Euphydryas editha bayensis</i>
Variable Checkerspot	<i>Euphydryas chalcedona</i>
Painted Lady	<i>Vanessa cardui</i>
Red Admiral	<i>Vanessa atalanta</i>
California Ringlet	<i>Coenonympha californica</i>
Buckeye	<i>Junonia coenia</i>
Pacific Orange-tip	<i>Anthocharis sara</i>
Mylitta Crescent	<i>Phyciodes mylitta</i>
Field Crescent	<i>Phyciodes pulchella</i>
Acmon Blue	<i>Plebejus acmon</i>
Gray Hairstreak	<i>Strymon melinus</i>
Anise Swallowtail	<i>Papilio zelicaon</i>
Orange Sulphur	<i>Colias eurytheme</i>
Longhorn Moth	<i>Adela sp.</i>



APPENDIX B

POTENTIAL FOR SPECIAL-STATUS PLANT AND WILDLIFE SPECIES  
TO OCCUR IN THE SITE



Appendix B. Potential for Special Status Plant Species to Occur in the Study Area. This list was compiled from a search of the USGS San Jose East, Lick Observatory, Morgan Hill, and Santa Teresa Hills USGS 7.5 minute quadrangles of the California Department of Fish and Game Natural Diversity Data Base (CNDDDB) (2011). The California Native Plant Society (CNPS) Electronic Inventory was searched using a nine quad query focused on the San Jose East quadrangle (2011).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
<b>Plants</b>				
bent-flowered fiddleneck <i>Amsinckia lunaris</i>	List 1B	Coastal bluff scrub, cismontane woodland, and valley and foothill grassland. 3-500 m. Blooms March-June.	<b>Moderate Potential.</b> Suitable habitat for this species exists in openings in oak woodlands within the Study Area, which was not a targeted habitat during the May 2009 rare plant survey.	A focused survey for this species in oak woodlands is recommended during the blooming period. See Section 5.2 of the BRA.
alkali milk-vetch <i>Astragalus tener</i> var. <i>tener</i>	List 1B	Playas, valley and foothill grassland (on adobe clay), and vernal pools; often on alkaline soils. 1- 60m. Blooms March-June.	<b>No Potential.</b> Suitable habitat and soil substrate for this species is not present within the Study Area.	No further actions are recommended for this species.
brittlescale <i>Atriplex depressa</i>	List 1B	Chenopod scrub, meadows and seeps, playas, valley and foothill grasslands, and vernal pools; often on alkaline, clay soils. 1- 320 m. Blooms May-October.	<b>No Potential.</b> Suitable habitat and soil substrate for this species is not present within the Study Area.	No further actions are recommended for this species.
San Joaquin spearscale <i>Atriplex joaquiniana</i>	List 1B	Chenopod scrub, meadows and seeps, playas, and valley and foothill grasslands; often on alkaline soils. 1- 835 m. Blooms April-October.	<b>No Potential.</b> Suitable habitat and soil substrate for this species is not present within the Study Area.	No further actions are recommended for this species.
big scale balsamroot <i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>	List 1B	Valley and foothill grasslands and cismontane woodland; often on serpentinite soils. 90- 1400 m. Blooms March-June.	<b>Moderate Potential.</b> Suitable habitat for this species exists in openings in oak woodlands within the Study Area, which was not a targeted habitat during the May 2009 rare plant survey.	A focused survey for this species in oak woodlands is recommended during the blooming period. See Section 5.2 of the BRA.
Round-leaved filaree <i>California macrophylla</i>	List 1B	Cismontane woodland and valley and foothill grasslands; often on clay soils. 15- 1200 m. Blooms March-May.	<b>Moderate Potential.</b> Suitable habitat for this species exists in openings in oak woodlands within the Study Area, which was not a targeted habitat during the May 2009 rare plant survey.	A focused survey for this species in oak woodlands is recommended during the blooming period. See Section 5.2 of the BRA.

Appendix B. Potential for Special Status Plant Species to Occur in the Study Area. This list was compiled from a search of the USGS San Jose East, Lick Observatory, Morgan Hill, and Santa Teresa Hills USGS 7.5 minute quadrangles of the California Department of Fish and Game Natural Diversity Data Base (CNDDDB) (2011). The California Native Plant Society (CNPS) Electronic Inventory was searched using a nine quad query focused on the San Jose East quadrangle (2011).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
chaparral harebell <i>Campanula exigua</i>	List 1B	Chaparral; often on rocky and serpentinite soils. 275- 1250 m. Blooms May-June.	<b>Not Present.</b> A floristic survey was performed in suitable habitat during the blooming period for this species and it was not observed.	No further actions are recommended for this species.
Tiburon Indian paintbrush <i>Castilleja affinis ssp. neglecta</i>	FE, CT, List 1B	Valley and foothill grassland. Rocky serpentinite sites. 75-400m. Blooms April-June.	<b>Not Present.</b> A floristic survey was performed in suitable habitat during the blooming period for this species and it was not observed.	No further actions are recommended for this species.
pink creamsacs <i>Castilleja rubicundula ssp. rubicundula</i>	List 1B	On serpentinite soils in chaparral (openings), cismontane woodland, meadows and seeps, valley and foothill grassland. 20-910 m. Blooms April-June.	<b>Not Present.</b> A floristic survey was performed in suitable habitat during the blooming period for this species and it was not observed.	No further actions are recommended for this species.
Coyote Ceanothus <i>Ceanothus ferrisiae</i>	FE, List 1B	Chaparral, coastal scrub, and valley and foothill grassland, often on serpentinite. 120-460 m. Blooms January-May.	<b>Not Present.</b> A floristic survey was performed in suitable habitat during the blooming period for this species and it was not observed.	No further actions are recommended for this species.
Congdon's tarplant <i>Centromadia parryi ssp. congdonii</i>	List 1B	Valley and foothill grasslands; often on alkaline soils. 1- 230 m. Blooms May-October; uncommonly in November.	<b>Unlikely.</b> Few of the habitat components meeting the species requirements are present. The species is not likely to be found on the site.	No further actions are recommended for this species.
Point Reyes bird's-beak <i>Chloropyron maritimum ssp. palustre</i>	List 1B	Marshes and swamps (coastal salt). 0-10 m. Blooms June-October.	<b>No Potential.</b> The Project Area does not contain suitable habitat for this species.	No further actions are recommended for this species.
robust spineflower <i>Chorizanthe robusta var. robusta</i>	FE, List 1B	Chaparral (maritime), cismontane woodland (openings), coastal dunes, coastal scrub on sandy or gravelly soil. 3-300 m. Blooms April-September.	<b>No Potential.</b> The Project Area does not contain suitable habitat for this species.	No further actions are recommended for this species.

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SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Mt. Hamilton fountain thistle <i>Cirsium fontinale</i> var. <i>campylon</i>	List 1B	Chaparral, cismontane woodland, valley and foothill grassland and serpentinite seeps.	<b>Present.</b> This species was observed during May 2009 surveys in seep wetlands with serpentinite substrates.	See section 4.2.1 of BRA for a description of this species and its extent within the Study Area.
San Francisco collinsia <i>Collinsia multicolor</i>	List 1B	Closed-cone coniferous forest and coastal scrub, sometimes serpentinite.	<b>Unlikely.</b> Few of the habitat components meeting the species requirements are present. The species is not likely to be found on the site.	No further actions are recommended for this species.
Santa Clara Valley dudleya <i>Dudleya abramsii</i> ssp. <i>setchellii</i>	FE, List 1B	Cismontane woodland and valley and foothill grassland. Found on serpentinite and rocky soils. 60-455 m. Blooms April-October.	<b>Present.</b> This species was observed during May 2009 surveys on serpentinite rock outcrops in grassland. .	See section 4.2.1 of BRA for a description of this species and its extent within the Study Area.
Hoover's button-celery <i>Eryngium aristulatum</i> var. <i>hooveri</i>	List 1B	Vernal Pools. 3-45 m. Blooms in July.	<b>No Potential.</b> The Project Area does not contain suitable habitat for this species.	No further actions are recommended for this species.
Fragrant fritillaria <i>Fritillaria liliacea</i>	List 1B	Coastal scrub, valley and foothill grassland, coastal prairie. Often in serpentine; various soils reported though usually clay, in grassland. 3-410 m. Blooms February-April.	<b>Present.</b> This species was observed during March 2010 surveys in suitable habitat.	See section 4.2.1 of BRA for a description of this species and its extent within the Study Area.
Loma Prieta hoita <i>Hoita strobilina</i>	List 1B	Chaparral, cismontane woodland, riparian woodland, usually on serpentinite, mesic soils. 30-860 m. Blooms May-October.	<b>Moderate Potential.</b> Suitable habitat for this species exists in openings in oak woodlands and riparian woodlands within the Study Area, which were not targeted habitats during the May 2009 rare plant survey. e	A focused survey for this species in oak and riparian woodlands is recommended during the blooming period. See Section 5.2 of the BRA..

Appendix B. Potential for Special Status Plant Species to Occur in the Study Area. This list was compiled from a search of the USGS San Jose East, Lick Observatory, Morgan Hill, and Santa Teresa Hills USGS 7.5 minute quadrangles of the California Department of Fish and Game Natural Diversity Data Base (CNDDDB) (2011). The California Native Plant Society (CNPS) Electronic Inventory was searched using a nine quad query focused on the San Jose East quadrangle (2011).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Contra Costa goldfields <i>Lasthenia conjugens</i>	FE, List 1B	Mesic sites in valley and foothill grassland, vernal pools, playas, swales, low depressions, open grassy areas, cismontane woodland. 0-470 m. Blooms March-June	<b>Not Present.</b> A floristic survey was performed in suitable habitat during the blooming period for this species and it was not observed.	No further actions are recommended for this species.
Mt. Hamilton coreopsis <i>Leptosyne hamiltonii</i>	List 1B	Cismontane woodland (rocky). 550-1300 m. Blooms March-May.	<b>Moderate Potential.</b> Suitable habitat for this species exists in openings in oak woodlands within the Study Area, which was not a targeted habitat during the May 2009 rare plant survey.	A focused survey for this species in oak woodlands is recommended during the blooming period. See Section 5.2 of the BRA..
smooth Lessingia <i>Lessingia micradenia</i> var. <i>glabrata</i>	List 1B	Cismontane woodland and chaparral. Found on serpentinite, and often on roadsides. 120-420 m. Blooms July-November.	<b>Present.</b> This species was observed during July 2011 surveys in serpentine bunchgrass grassland.	See section 4.2.1 of BRA for a description of this species and its extent within the Study Area.
Mt. Hamilton Lomatium <i>Lomatium observatorium</i>	List 1B	Cismontane woodland. 1219-1330 m. Blooms March-May.	<b>Unlikely.</b> Although suitable habitat for this species may exist in oak woodlands within the Study Area, elevation within the Study Area is well below the reported elevation range for this species.	No further actions are recommended for this species.
showy golden madia <i>Madia radiata</i>	List 1B	Cismontane woodland and valley and foothill grassland. 25-1215 m. Blooms March-May.	<b>Moderate Potential.</b> Suitable habitat for this species exists in openings in oak woodlands within the Study Area, which was not a targeted habitat during the May 2009 rare plant survey.	A focused survey for this species in oak woodlands is recommended during the blooming period. See Section 5.2 of the BRA.
arcuate bush-mallow <i>Malacothamnus</i> <i>arcuatus</i>	List 1B	Cismontane woodland and chaparral. 15-355 m. Blooms April-September.	<b>Moderate Potential.</b> Suitable habitat for this species exists in openings in oak woodlands within the Study Area, which was not a targeted habitat during the May 2009 rare plant survey.	A focused survey for this species in oak woodlands is recommended during the blooming period. See Section 5.2 of the BRA.



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<b>SPECIES</b>	<b>STATUS*</b>	<b>HABITAT</b>	<b>POTENTIAL FOR OCCURRENCE</b>	<b>RECOMMENDATIONS</b>
Hall's bush mallow <i>Malacothamnus hallii</i>	List 1B	Chaparral. Some populations on serpentine. 10-550m. Blooms May-September.	<b>Present.</b> This species was observed during May 2009 surveys in chaparral in the western portion of the Study Area.	See section 4.2.1 of BRA for a description of this species and its extent within the Study Area.
robust monardella <i>Monardella villosa</i> ssp. <i>globosa</i>	List 1B	Openings in broadleaved upland forest, cismontane woodland, chaparral, valley and foothill grassland, and coastal scrub. 100-915 m. Blooms June-July.	<b>Moderate Potential.</b> Suitable habitat for this species exists in openings in oak woodlands within the Study Area, which was not a targeted habitat during the May 2009 rare plant survey.	A focused survey for this species in oak woodlands is recommended during the blooming period. See Section 5.2 of the BRA.
woodland woollythreads <i>Monolopia gracilens</i>	List 1B	Openings in broadleaved upland forest, cismontane woodland, chaparral, valley and foothill grassland, North Coast coniferous forests, and valley and foothill grasslands. 100-1200 m. Blooms February-July.	<b>Not Present.</b> A floristic survey was performed in suitable habitat during the blooming period for this species and it was not observed.	No further actions are recommended for this species.
prostrate vernal pool navarretia <i>Navarretia prostrata</i>	List 1B	Mesic, alkaline soils in valley and foothill grassland, or in meadows and seeps, coastal scrub, vernal pools. 15-1200 m. Blooms April-July.	<b>No Potential.</b> The Project Area does not contain suitable habitat for this species.	No further actions are recommended for this species.
Mt. Diablo phacelia <i>Phacelia phacelioides</i>	List 1B	Chaparral and cismontane woodland; often on rocky soils. 500- 1370 m. Blooms April-May.	<b>Moderate Potential.</b> Suitable habitat for this species exists in openings in oak woodlands within the Study Area, which was not a targeted habitat during the May 2009 rare plant survey.	A focused survey for this species in oak woodlands is recommended during the blooming period. See Section 5.2 of the BRA..
hairless popcorn flower <i>Plagiobothrys glaber</i>	List 1A	Coastal salt marshes, alkaline meadows and seeps. 15-180 m. Blooms March-May.	<b>No Potential.</b> The Project Area does not contain suitable habitat for this species.	No further actions are recommended for this species.

Appendix B. Potential for Special Status Plant Species to Occur in the Study Area. This list was compiled from a search of the USGS San Jose East, Lick Observatory, Morgan Hill, and Santa Teresa Hills USGS 7.5 minute quadrangles of the California Department of Fish and Game Natural Diversity Data Base (CNDDDB) (2011). The California Native Plant Society (CNPS) Electronic Inventory was searched using a nine quad query focused on the San Jose East quadrangle (2011).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
rock sanicle <i>Sanicula saxatilis</i>	SR, List 1B	Broadleafed upland forest, chaparral, and valley and foothill grassland; often on rocky soils. 620- 1175 m. Blooms April-May.	<b>Moderate Potential.</b> Suitable habitat for this species exists in openings in oak woodlands within the Study Area, which was not a targeted habitat during the May 2009 rare plant survey.	A focused survey for this species in oak woodlands is recommended during the blooming period. See Section 5.2 of the BRA..
Metcalf Canyon jewel-flower <i>Streptanthus albidus</i> <i>ssp. albidus</i>	FE, List 1B	Valley and foothill grassland on serpentinite soils.	<b>Present.</b> This species was observed during May 2009 surveys on serpentinite rock outcrops within grassland habitat.	See section 4.2.1 of BRA for a description of this species and its extent within the Study Area.
most beautiful jewel-flower <i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	List 1B	Chaparral, valley and foothill grassland, cismontane woodland. Serpentine outcrops, on ridges and slopes. 120-730 m. Blooms April-June.	<b>Present.</b> This species was observed during May 2009 surveys on serpentinite rock outcrops within grassland habitat.	See section 4.2.1 of BRA for a description of this species and its extent within the Study Area.
<i>Suaeda californica</i> California seablite	FE, List 1B	Marshes and swamps. 0-15 m. Blooms July-October.	<b>No Potential.</b> The Project Area does not contain suitable habitat for this species. Additionally, the species elevation requirements may restrict habitat on-site.	No further actions are recommended for this species.

\*Key to Status Codes

FE	Federally Endangered
List 1A	CNPS List 1A: Plants presumed extinct in California
List 1B	CNPS List 1B: Plants rare, threatened or endangered in California and elsewhere
List 2	CNPS List 2: Plants rare, threatened, or endangered in California, but more common elsewhere

Appendix B. Potential for Special Status Wildlife Species to Occur in the Study Area. List compiled from the California Department of Fish and Game (CDFG) Natural Diversity Database (March 2011), U.S. Fish and Wildlife Service (USFWS) Species Lists of Santa Clara County and the East San Jose, Lick Observatory, Morgan Hill, and Santa Teresa Hills USGS 7.5' quadrangles, as well as a review of other CDFG lists and publications (Jennings and Hayes 1994, Zeiner et al. 1990).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
<b>Mammals</b>			
Pallid Bat <i>Antrozous pallidus</i>	SSC, WBWG: High	Found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, forages along river channels. Roost sites include old ranch buildings, rocky outcrops and caves within sandstone outcroppings. Very sensitive to disturbance of roosting sites.	<b>Moderate Potential.</b> Some stands of oak woodland may provide suitable roost habitat.
Townsend's Big-eared Bat <i>Corynorhinus townsendii</i>	SSC, WBWG: High	Lives in a wide variety of habitats but most common in mesic sites. Day roosts highly associated with caves and mines. Need appropriate roosting, maternity, and hibernacula sites free from human disturbance.	<b>Unlikely.</b> Cavern-like roost habitat appears to be absent in the Study Area.
Western Red Bat <i>Lasiurus blossevillii</i>	SSC, WBWG: High	This species is typically solitary, roosting primarily in the foliage of trees or shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. There may be an association with intact riparian habitat (particularly willows, cottonwoods, and sycamores).	<b>Moderate Potential.</b> Large stands of trees are absent in the Study Area; however, more dense stands of oak, bay, and riparian trees may provide limited habitat.
Hoary Bat <i>Lasiurus cinereus</i>	WBWG: Medium	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths and forages over water.	<b>Moderate Potential.</b> Large stands of trees are absent in the Study Area; however, more dense stands of oak, bay, and riparian trees may provide limited habitat.

<b>SPECIES</b>	<b>STATUS*</b>	<b>HABITAT</b>	<b>POTENTIAL FOR OCCURRENCE</b>
Long-eared Myotis <i>Myotis evotis</i>	WBWG High	Primarily associated with forests. Day roosts in hollow trees, under exfoliating bark, rock outcrop crevices and buildings. Other roosts in caves, mines and under bridges. This species may forage over water and nearby scrub habitat.	<b>Unlikely.</b> Typical forest habitats and roost sites are not present in the Study Area.
Fringed Myotis <i>Myotis thysanodes</i>	WBWG High	Associated with a wide variety of habitats including mixed coniferous-deciduous forest and redwood/sequoia groves. Buildings, mines and large snags are important day and night roosts.	<b>Unlikely.</b> Typical forest habitats and roost sites are not present in the Study Area.
Long-legged Myotis <i>Myotis volans</i>	WBWG High	Generally associated with woodlands and forested habitats. Large hollow trees, rock crevices and buildings are important day roosts. Other roosts include caves, mines and buildings.	<b>Unlikely.</b> Typical forest habitats and roost sites are not present in the Study Area.
Western Mastiff Bat <i>Eumops perotis californicus</i>	SSC, WBWG: High	Found in a wide variety of open, arid and semi-arid habitats. Distribution appears to be tied to large rock structures which provide suitable roosting sites, including cliff crevices and cracks in boulders.	<b>Unlikely.</b> Large rock structures are not present in the Study Area.
San Francisco Dusky-footed Woodrat <i>Neotoma fuscipes annectens</i>	SSC	Forest habitats of moderate canopy and moderate to dense understory. Also in chaparral habitats. Constructs nests of shredded grass, leaves, and other material. May be limited by availability of nest-building materials.	<b>High Potential.</b> Riparian and scrub communities provide suitable habitat for this species.
Ringtail <i>Bassariscus astutus</i>	CFP	Widespread resident of California, excluding the Central Valley, south to Mexico. Mostly carnivorous and nocturnal, it is typically found in remote areas with trees, brush, and rock crevices for cover. Often found in riparian forests or steep, rocky canyons.	<b>Moderate Potential.</b> Study Area provides suitable habitat; however, documented occurrences in the region are scarce.
American Badger <i>Taxidea taxus</i>	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Requires loose, friable soils and open, uncultivated ground. Preys on burrowing rodents.	<b>High Potential.</b> Suitable grassland habitat is present throughout much of the Study Area.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i>	FE, ST	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	<b>Unlikely.</b> Probably extirpated in vicinity of Study Area. Potential dens are limited in number.
<b>Birds</b>			
White-tailed Kite <i>Elanus leucurus</i>	CFP	Year-long resident of coastal and valley lowlands; rarely found away from agricultural areas. Preys on small diurnal mammals and occasional birds, insects, reptiles, and amphibians.	<b>High Potential.</b> Scattered trees and shrubs combined with expanses of open habitat provide suitable habitat for this species.
Golden Eagle <i>Aquila chrysaetos</i>	BCC, CFP	Rolling foothills mountain areas, sage-juniper flats, desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	<b>Present.</b> Observed soaring over Study Area during checkerspot surveys.
Ferruginous Hawk <i>Buteo regalis</i>	BCC	Frequents open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys and fringes of pinyon-juniper habitats. Preys on lagomorphs, ground squirrels and mice. Population trends may follow lagomorph population cycles.	<b>Moderate Potential.</b> Likely forages over the Study Area in winter. This species does not nest in the region.
Northern Harrier <i>Circus cyaneus</i>	SSC	Nests and forages in grassland habitats, usually in association with coastal salt and freshwater marshes. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas. May also occur in alkali desert sinks.	<b>Present.</b> Observed during checkerspot surveys in 2010. Areas of tall, ungrazed grassland or tall emergent vegetation may provide nesting habitat.
Prairie Falcon <i>Falco mexicanus</i>	BCC	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	<b>High Potential.</b> Suitable foraging habitat is present in the Study Area.
American Peregrine Falcon <i>Falco peregrinus anatum</i>	CFP, BCC	Prefers dry, open terrain, either level or hilly. Forages far afield, even to marshlands and ocean shores. Nests near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape on a depression or ledge in an open site.	<b>Moderate Potential.</b> Suitable foraging habitat is present in the Study Area.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Short-eared Owl <i>Asio flammeus</i>	SSC	Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	<b>Moderate Potential.</b> Suitable wintering habitat is present. Areas of tall, ungrazed grassland or tall emergent vegetation may provide nesting habitat.
Long-eared Owl <i>Asio otus</i>	SSC	Riparian bottomlands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses. Require adjacent open land productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.	<b>Moderate Potential.</b> Denser stands of trees may provide habitat for this species. Documented in eastern Santa Clara County (eBird 2011).
Burrowing Owl <i>Athene cunicularia</i>	BCC, SSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon small mammal burrows, most often dug by California ground squirrels.	<b>Present.</b> Incidental observations during checkerspot surveys suggest this species nests in the Study Area.
Vaux's Swift <i>Chaetura vauxi</i>	SSC	Redwood, douglas fir, and other coniferous forests. Nests in large hollow trees and snags. Often nests in flocks. Forages over most terrains and habitats but shows a preference for foraging over rivers and lakes.	<b>Moderate Potential.</b> Likely occurs as a migrant in the Study Area; large breeding snags are not present. There are scattered breeding season records in Santa Clara County (eBird 2011).
Black Swift <i>Cypseloides niger</i>	BCC, SSC	Coastal belt of Santa Cruz and Monterey County; central and southern Sierra Nevada; San Bernardino and San Jacinto Mountains. Breeds in small colonies on cliffs near waterfalls in deep canyons, and sea-bluffs above surf; forages widely.	<b>Unlikely.</b> Typical nesting habitat is not present in the Study Area.
Rufous Hummingbird <i>Selasphorus rufus</i>	BCC	Breeds in transition life zone of northwest coastal area from Oregon border to southern Sonoma county. Nests in berry tangles, shrubs, and conifers. Favors habitats rich in nectar-producing flowers.	<b>Moderate Potential.</b> Likely occurs only as a northward migrant in spring.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Allen's Hummingbird <i>Selasphorus sasin</i>	BCC	This hummingbird is primarily a summer resident in the San Francisco Bay region. Breeding occurs in a variety of habitat types, but especially in riparian, oak woodland, and coastal scrub communities. Allen's Hummingbirds feed on nectar from a variety of herbaceous and woody flowering plants, and they also eat small insects and spiders.	<b>High Potential.</b> Suitable habitat present in scrub and riparian habitats. Several documented occurrences in Santa Clara County (eBird 2011).
Lewis' Woodpecker <i>Melanerpes lewis</i>	BCC	Uncommon winter resident occurring on open oak savannahs, broken deciduous and coniferous habitats.	<b>Moderate Potential.</b> Suitable oak woodland and savannah habitat is present in the Study Area. Documented in eastern Santa Clara County (eBird 2011)
Nuttall's Woodpecker <i>Picoides nuttallii</i>	BCC	Occurs in oak woodlands and riparian habitats.	<b>Present.</b> Observed in Study Area in 2010.
Loggerhead Shrike <i>Lanius ludovicianus</i>	SSC, BCC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	<b>High Potential.</b> Scattered trees and shrubs combined with expanses of open habitat provide suitable habitat for this species.
Least Bell's Vireo <i>Vireo bellii pusillus</i>	FE, SE, BCC	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 feet. Nests placed along margins of bushes or on twigs projecting into pathways; usually willow, coyotebrush or mesquite.	<b>Unlikely.</b> Nearest documented occurrence is along Llano Creek near Gilroy. Study Area lacks significant areas of dense willow-dominated riparian habitat.
Yellow-billed Magpie <i>Pica nuttalli</i>	BCC	Generally associated with oak woodlands, oak savannah, agricultural lands, and riparian edges.	<b>Present.</b> Observed in Study Area during checkerspot surveys in 2008.
Purple Martin <i>Progne subis</i>	SSC	Inhabits woodlands and low elevation coniferous forests. Nests in old woodpecker cavities and human-made structures. Nest is often located in tall, isolated tree or snag.	<b>Unlikely.</b> Typical nesting habitat not present for large numbers of individuals; may occur during migration. Documented in eastern Santa Clara County (eBird 2011).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Oak Titmouse <i>Baeolophus inornatus</i>	BCC	Occurs in open woodlands of oak, pine and oak, and juniper and oak. The nest is built in woodpecker holes and natural cavities; titmice sometimes partially excavate their own cavity.	<b>Present.</b> Observed in Study Area during checkerspot surveys in 2010.
Yellow Warbler <i>Dendroica petechia brewsteri</i>	SSC, BCC	Frequents riparian plant associations. Prefers willows, cottonwoods, aspens, sycamores and alders for nesting and foraging. Also nests in montane shrubbery in open conifer forests.	<b>Moderate Potential.</b> Likely occurs during migration and post-breeding dispersal. Scattered patches of riparian habitat and emergent vegetation provide limited breeding habitat.
Saltmarsh Common Yellowthroat <i>Geothlypis trichas sinuosa</i>	SSC, BCC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	<b>Moderate Potential.</b> Likely occurs during migration and post-breeding dispersal. Scattered patches of riparian habitat and emergent vegetation provide limited breeding habitat.
Yellow-breasted Chat <i>Icteria virens</i>	SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forage and nest within 10 feet of ground.	<b>Unlikely.</b> Dense riparian thickets are not present in the Study Area.
Grasshopper Sparrow <i>Ammodramus savannarum</i>	SSC	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs, and scattered shrubs. Loosely colonial when nesting.	<b>Present.</b> Observed in Study Area in 2010. Likely nests in grasslands throughout the site.
Bryant's Savannah Sparrow <i>Passerculus sandwichensis alaudinus</i>	SSC	Associated with the coastal fog belt, primarily between Humboldt and northern Monterey Counties. Occupies low tidally influenced habitats, adjacent to ruderal areas; often found where Pickleweed communities merge into grassland. Infrequently found in drier grasslands. Builds nests in taller grasses and rushes along roads, levees, and water conveyance canals.	<b>Unlikely.</b> This species is most likely to occur in grasslands and other open habitats along the immediate coast.



SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Tricolored Blackbird <i>Agelaius tricolor</i>	BCC, SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey close to the colony.	<b>Moderate Potential.</b> Probably occurs as a winter visitor. Small areas of dense emergent vegetation are unlikely to support a breeding colony.
Lawrence's Goldfinch <i>Carduelis lawrencei</i>	BCC	Nests in open oak or other arid woodland and chaparral, near water. Nearby herbaceous habitats used for feeding. Closely associated with oaks.	<b>Moderate Potential.</b> Known to occur in eastern Santa Clara County (eBird 2011). Suitable habitat is present in the Study Area.

#### Reptiles and Amphibians

California Tiger Salamander <i>Ambystoma californiense</i>	FT, ST	Inhabits grassland, oak woodland, ruderal and seasonal pool habitats. Seasonal ponds and vernal pools are crucial to breeding. Adults utilize mammal burrows as estivation habitat.	<b>Present.</b> An incidental sighting of a larva in a pond in the southern portion of the Study Area suggests this species may be widespread on the site.
Foothill Yellow-legged Frog <i>Rana boylei</i>	SSC	Found in or near rocky streams in a variety of habitats. Prefers partly-shaded, shallow streams and riffles with a rocky substrate; requires at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis. Feeds on both aquatic and terrestrial invertebrates.	<b>Unlikely.</b> Although potential habitat is present along perennial and intermittent streams, this species has not been observed in the Study Area.
California Red-legged Frog <i>Rana draytonii</i>	FT, SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11 to 20 weeks of permanent water for larval development. Must have access to estivation habitat.	<b>Present.</b> This frog has been observed in several ponds that occur in the Study Area. An egg mass was observed in a stream pool in April 2010.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE
Western Pond Turtle <i>Actinemys marmorata</i>	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Require basking sites such as partially submerged logs, vegetation mats, or open mud banks, and suitable upland habitat (sandy banks or grassy open fields) for egg-laying.	<b>Moderate Potential.</b> Although potential habitat is present in perennial ponds, this species has not been observed in the Study Area.
Alameda Whipsnake <i>Masticophis lateralis euryxanthus</i>	FT, ST	Associated with scrub communities, including chaparral, coastal scrub, annual grassland and oak woodlands adjacent to scrub that contain areas of rock outcroppings. Rock outcroppings are a favored location for lizard prey, which may include lizards, rodents, frogs and nestling birds.	<b>Unlikely.</b> Study Area contains limited rock outcrop-scrub core habitat. Probably extirpated in Santa Clara County (USFWS)
Blainville's [Coast] Horned Lizard <i>Phrynosoma blainvillii</i>	SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	<b>Moderate Potential.</b> Scrub habitat within the Study Area may provide habitat for this species.

### Invertebrates

Bay checkerspot butterfly <i>Euphydryas editha bayensis</i>	FT	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. Dwarf plantain ( <i>Plantago erecta</i> ) is the primary host plant; secondary host plants available later in the season include <i>Orthocarpus densiflorus</i> , <i>O. purpurascens</i> and <i>Castilleja exserta</i> spp. <i>exerta</i> .	<b>Present.</b> Species has been observed in season during successive years of surveys.
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#### \* Key to status codes

FE	Federal Endangered	SSC	CDFG Species of Special Concern
FT	Federal Threatened	CFP	CDFG Fully Protected Animal
BCC	USFWS Bird of Conservation Concern	WBWG	Western Bat Working Group Species
SE	State Endangered		
ST	State Threatened		

## APPENDIX C

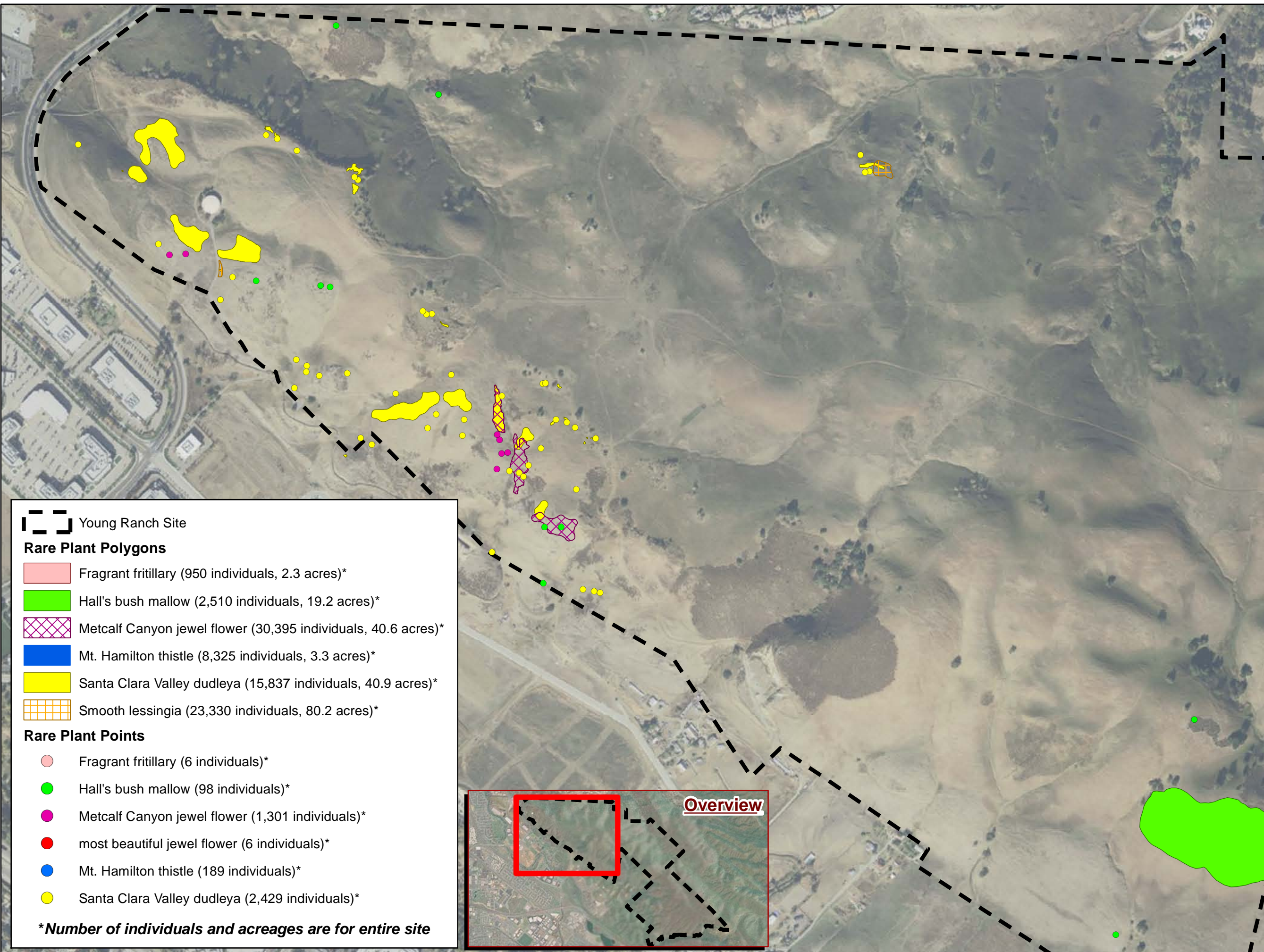
### FOCUSED PLANT SURVEY REPORTS




Young Ranch  
Santa Clara,  
California







Appendix C1.

Map of Special Status  
Plant Species Observed  
in the Site









 Young Ranch Site

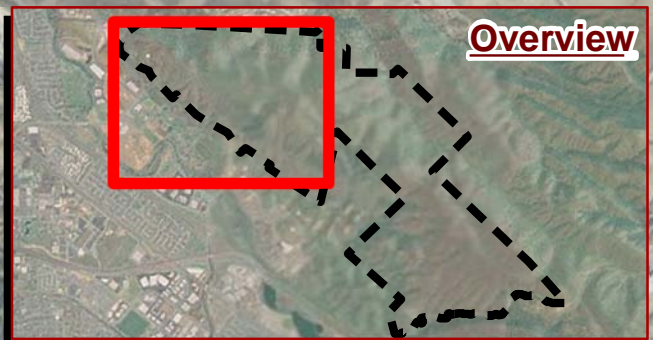
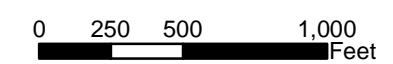
**Rare Plant Polygons**

-  Fragrant fritillary (950 individuals, 2.3 acres)\*
-  Hall's bush mallow (2,510 individuals, 19.2 acres)\*
-  Metcalf Canyon jewel flower (30,395 individuals, 40.6 acres)\*
-  Mt. Hamilton thistle (8,325 individuals, 3.3 acres)\*
-  Santa Clara Valley dudleya (15,837 individuals, 40.9 acres)\*
-  Smooth lessingia (23,330 individuals, 80.2 acres)\*

**Rare Plant Points**

-  Fragrant fritillary (6 individuals)\*
-  Hall's bush mallow (98 individuals)\*
-  Metcalf Canyon jewel flower (1,301 individuals)\*
-  most beautiful jewel flower (6 individuals)\*
-  Mt. Hamilton thistle (189 individuals)\*
-  Santa Clara Valley dudleya (2,429 individuals)\*

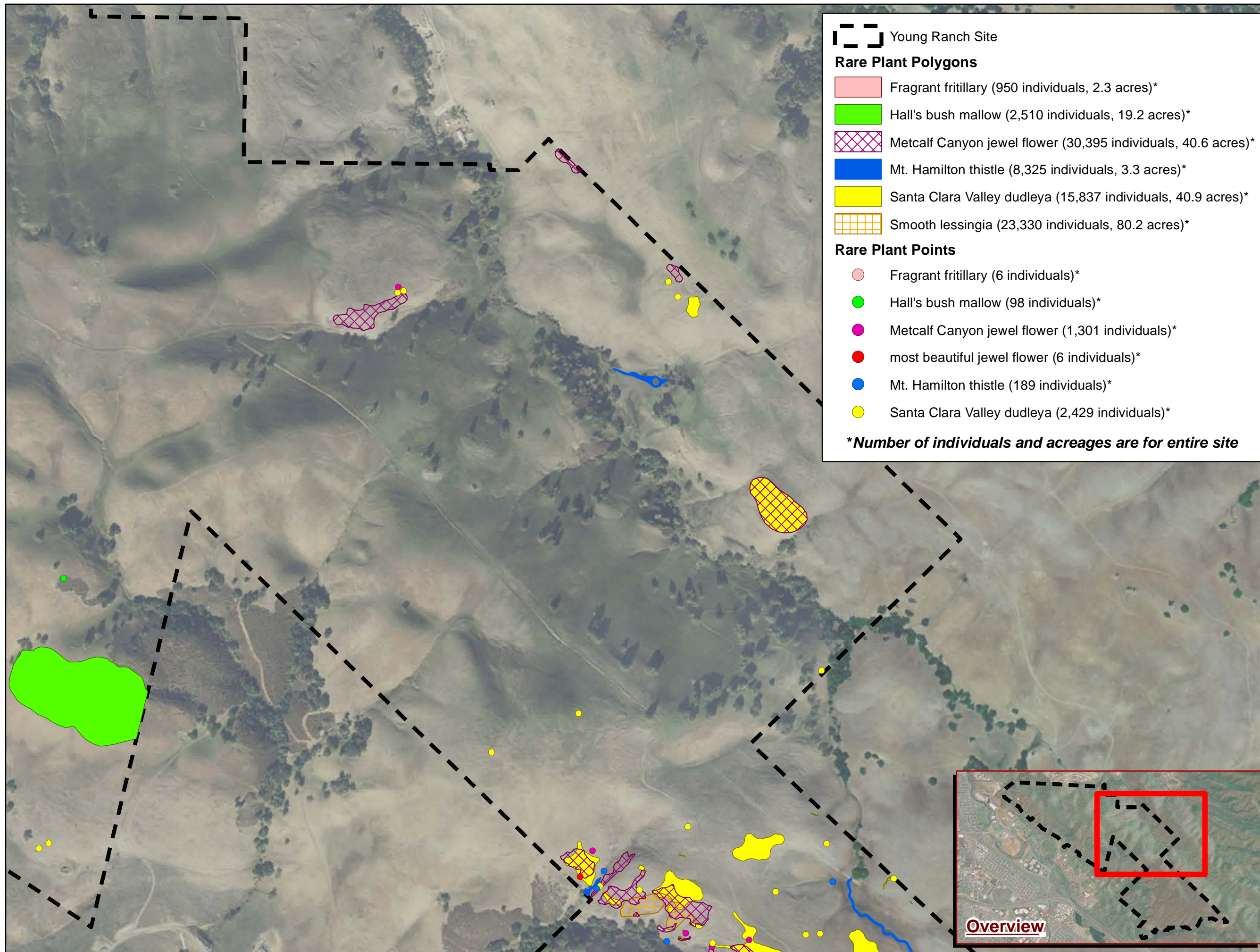
**\*Number of individuals and acreages are for entire site**




Young Ranch  
Santa Clara,  
California







Appendix C2.

Map of Special Status  
Plant Species Observed  
in the Site









 Young Ranch Site

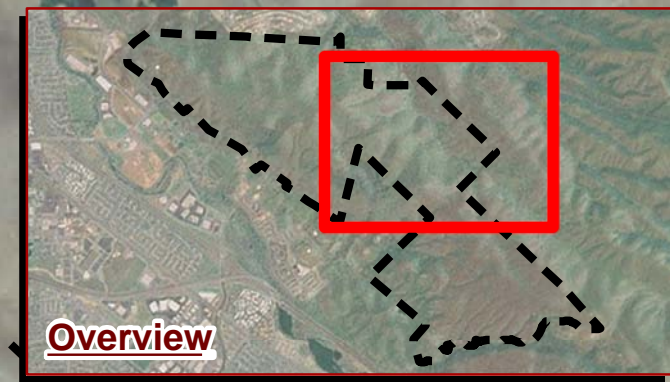
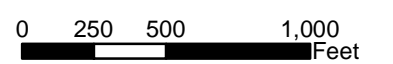
**Rare Plant Polygons**

-  Fragrant fritillary (950 individuals, 2.3 acres)\*
-  Hall's bush mallow (2,510 individuals, 19.2 acres)\*
-  Metcalf Canyon jewel flower (30,395 individuals, 40.6 acres)\*
-  Mt. Hamilton thistle (8,325 individuals, 3.3 acres)\*
-  Santa Clara Valley dudleya (15,837 individuals, 40.9 acres)\*
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**Rare Plant Points**

-  Fragrant fritillary (6 individuals)\*
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-  Metcalf Canyon jewel flower (1,301 individuals)\*
-  most beautiful jewel flower (6 individuals)\*
-  Mt. Hamilton thistle (189 individuals)\*
-  Santa Clara Valley dudleya (2,429 individuals)\*

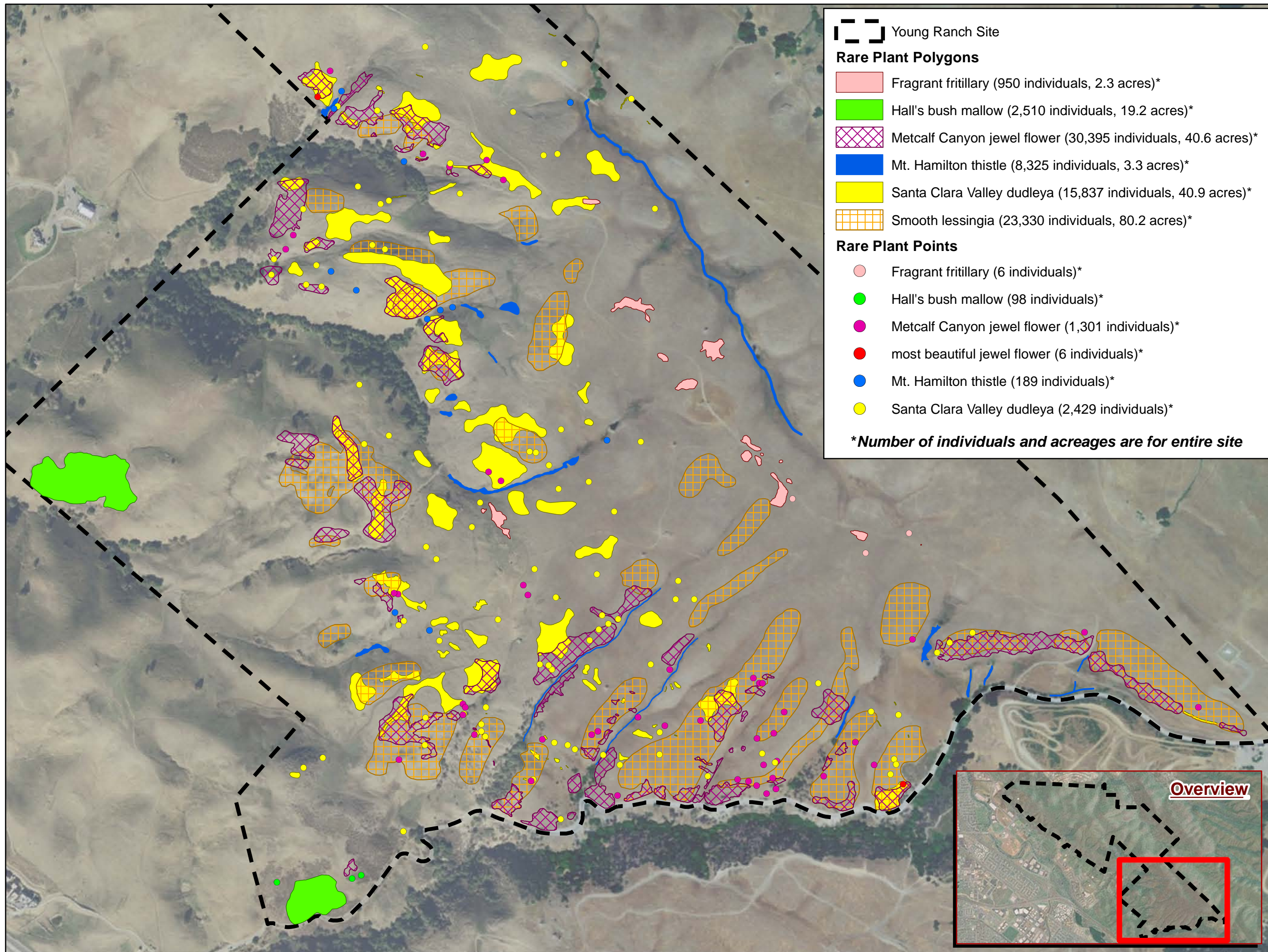
**\*Number of individuals and acreages are for entire site**

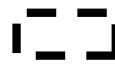


Young Ranch  
Santa Clara,  
California







Appendix C3.

Map of Special Status  
Plant Species Observed  
in the Site









 Young Ranch Site

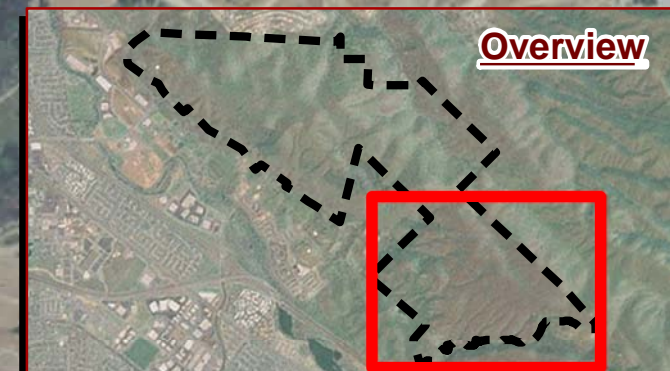
**Rare Plant Polygons**

-  Fragrant fritillary (950 individuals, 2.3 acres)\*
-  Hall's bush mallow (2,510 individuals, 19.2 acres)\*
-  Metcalf Canyon jewel flower (30,395 individuals, 40.6 acres)\*
-  Mt. Hamilton thistle (8,325 individuals, 3.3 acres)\*
-  Santa Clara Valley dudleya (15,837 individuals, 40.9 acres)\*
-  Smooth lessingia (23,330 individuals, 80.2 acres)\*

**Rare Plant Points**

-  Fragrant fritillary (6 individuals)\*
-  Hall's bush mallow (98 individuals)\*
-  Metcalf Canyon jewel flower (1,301 individuals)\*
-  most beautiful jewel flower (6 individuals)\*
-  Mt. Hamilton thistle (189 individuals)\*
-  Santa Clara Valley dudleya (2,429 individuals)\*

**\*Number of individuals and acreages are for entire site**







APPENDIX D

REPRESENTATIVE SITE PHOTOGRAPHS





**Appendix D. Representative Photographs**

*Top:* Typical seasonal seep wetland dominated by iris-leaf rush.

*Bottom:* Typical stock pond and freshwater emergent wetland.

Photographs taken 4/19/11





**Appendix D. Representative Photographs**

*Top:* Ephemeral stream located within non-native oak woodland.

*Bottom:* Seasonal stream under dense riparian canopy cover.

Photographs taken 4/19/11 and 4/26/11





**Appendix D. Representative Photographs**  
*Top:* Serpentine bunchgrass grassland habitat in the southeast portion of the Study Area.

*Bottom:* Non-native annual grassland (foreground) and serpentine bunchgrass grassland (background). Mixed oak woodland located in drainage.

Photographs taken April 2008





Appendix D. Representative Photographs  
*Top and bottom:* Mixed scrub habitat in the  
north and west portions of the Study Area.

Photographs taken April 2008 and May 2009

