

APPENDIX C

Biological Resources Technical Report and Third-Party Review

Biological Resources Technical Report

**BIOLOGICAL ASSESSMENT, BOTANICAL SURVEY,
COASTAL CALIFORNIA GNATCATCHER SURVEY UPDATE,
BRASADA PROJECT, TT MAP 70583, SPECIFIC PLAN 25,
CITY OF SAN DIMAS, CALIFORNIA**

±314 Acre Property, ±314 Acres Surveyed

APNs 8665-001-004, 8665-001-005, 8665-001-009, 8665-001-012, 8665-003-001,
8678-030-033, TTM 70583, City of San Dimas, Sections 27 and 34, Township 1 North,
Range 10 West, USGS Glendora 7.5' Topographic Quadrangle Map

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MANAGEMENT SUMMARY

L&L Environmental, Inc. performed biological surveys on an assemblage of parcels totaling approximately ±314 acres within the City of San Dimas, California, at the request of NJD Ltd. The purpose of this study was to examine the subject property to evaluate and document the biological resources on the property, determine presence/absence of specific biological resources and the potential for sensitive species to occur. During this work effort, L&L conducted focused (CDFG 2009/protocol) springtime surveys for special status botanical species, and performed a protocol, focused nesting season survey for the California gnatcatcher. In addition, L&L has included data from the previous jurisdictional delineation prepared by Bonterra in April of 2008 and the 2009 L&L review of the delineation, drainage conditions and calculated possible impacts of the proposed project. Also included in the document are the results of a 2009 tree survey.

The proposed project consists of a ±270 acre Tentative Tract Map 70583 located within the larger 314±acre survey area. The proposed project consists of: 61 single-family, large residential lots and supporting streets and infrastructure. Total disturbance on the project site is approximately 90 acres the remaining acreage is divided into various open space uses. An additional offsite impact area totaling ±0.18 acres on the eastern central portion of the site was included in the survey area.

The project site is situated in an area that supports a mix of land uses, consisting of residential, commercial agriculture, and open space. Undeveloped area consists primarily of a variety of native and non-native habitats including mixed chaparral, coastal sage scrub, non-native grassland, woodlands and ecotones of these communities. L&L found the level of disturbance within the proposed development area to be moderate, due to existing and previous agricultural/ranching uses. These previous uses have resulted in the coastal sage scrub and mixed chaparral habitats being inundated with dense non-native grasses.

The thread-leaved brodiaea (*Brodiaea filifolia*) is a federally listed threatened species and state listed endangered species and critical habitat for this species occurs in the survey area. Thread-leaved brodiaea was not observed during focused botanical surveys, but potentially suitable habitat does occur within the survey area and populations were observed on a parcel in the vicinity, within coastal sage scrub/chaparral habitat similar to what occurs on-site. The northwestern edge of the development area currently falls within designated critical habitat for this species, however, revised critical habitat for this species has been proposed by the USFWS, which (if accepted) would no longer include the graded area. Planned fuel modification zones could potentially remain within the revised designated critical habitat. This species is a state and federally listed and if avoidance were not possible consultation with the agencies would be required for development impacts to the species or its designated critical

habitat. A minimum of informal consultation with the USFWS and the CDFG will occur on the issue of impacts to critical habitat. Mitigation measures if required may include avoidance, relocation of soils and plants and/or purchase of mitigation credits in an off-site mitigation bank

No California gnatcatcher (*Poliioptila californica*) (CAGN) were observed during the focused surveys. Coastal sage scrub habitat is present within the survey area but was determined to be of marginal quality based on the high percentage of non-native grasses within the majority of the habitat, the overall species composition and the habitat's elevational location, above the typical range of the species. Although CAGN were observed in the vicinity of the survey area in 2000, they do not currently occupy the site and are not expected to nest on or utilize the site on a regular basis under current conditions.

No other state or federally listed endangered or threatened species is expected to occur on the project site based on survey results, lack of habitat or the sites location outside of the elevation or linear range of the species.

Several special status species were observed in the survey area, including Plummer's mariposa lily (*Calochortus plummerae*), Cooper's hawk (*Accipiter cooperi*), coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), northern harrier (*Circus cyaneus*), California horned lark (*Eremophila alpestris actia*) and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). Impacts on these species would be considered adverse, but not significant, because none of these species is currently listed as threatened or endangered by state and/or federal resource agencies.

Trees suitable for raptor nesting are present within and around the site. Two nests were identified and one was active with red-tail hawks this season. In order to prevent impacts to nesting raptors and migratory birds, L&L recommends avoidance of construction during the nesting season (February 1 to August 31). If construction must occur within the nesting season a preconstruction survey (valid for 30 days) for nesting birds performed not more than 72 hours prior to construction or any site disturbance should be performed. If nesting birds are present, avoidance of nesting areas within a specified distance (300 – 500lf for raptors, 25 to 500Lf for other migratory birds), dependant upon the species, will be required until all juvenile birds have fledged and/or an authorized biologist has verified that the nest has otherwise become inactive.

Coastal sage scrub habitat, much of which is inundated by non-native species, is present on the site and will be impacted by development. This habitat is considered rare and threatened and impacts are considered significant. Mitigation will be required to offset development impacts to the habitat and wildlife associated with the habitat.

The overall ownership/parcel assemblage contains an estimated four thousand (4000) trees, of these 220 coast live oak, 138 walnut, 5 sycamore, and 67 *Eucalyptus* trees were identified within the proposed project footprint. These trees were determined to meet the City of San

Dimas definition of a “mature significant tree” (chapter 18.162 of the municipal code). Southern California black walnut (*Juglans californica* var. *californica*) is a species of special concern and California black walnut woodland is considered a rare or threatened community. Impacts to these trees and to the California walnut woodland will be mitigated under the City of San Dimas Mature and Significant Tree Ordinance and in conjunction with jurisdictional drainage mitigation (as these species are often located within habitat along drainage courses).

Data from previous delineation surveys were used to estimate jurisdictional drainages within the parcel assemblage totaling 25.4 acres. Estimated planned impacts to drainages within the development area include 6.31 acres, requiring regulatory (404/401/1602) permits and updated ACOE forms according to the new Arid West Guidelines.

1.0) INTRODUCTION

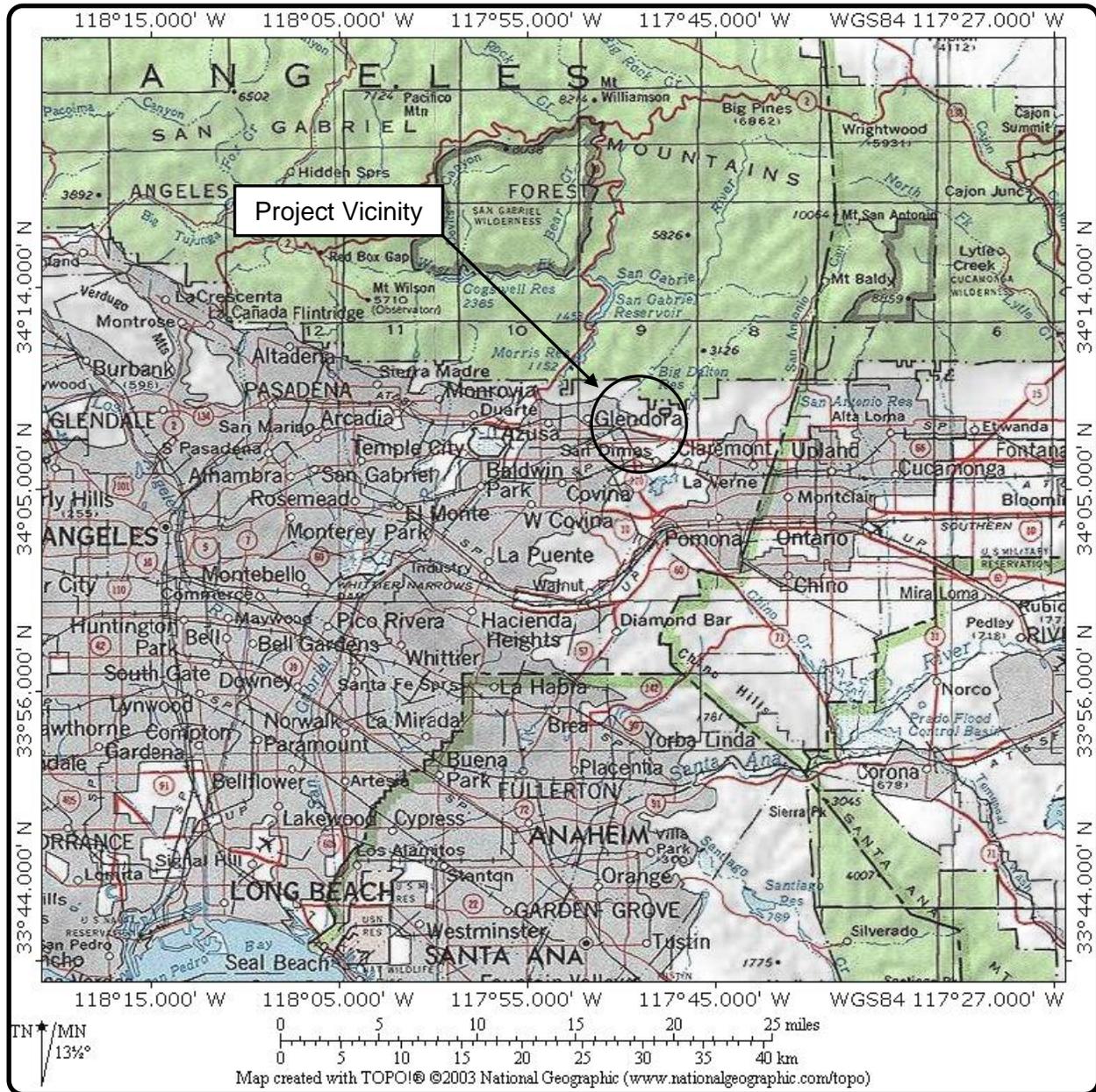
The following report was written by L&L Environmental, Inc. for NJD Ltd. It describes the results of biological surveys, including a survey for special status plant species, a survey for coastal California gnatcatcher, a 2009 heritage tree survey, and a 2009 review of jurisdictional areas as previously surveyed, in support of a proposed project located within the 3000 acre Northern Foothills Specific Plan, on lands within the City of San Dimas. The site consists of portions of APNs 8665-001-004, 8665-001-005, 8665-001-009, 865-001-012, 8665-003-001 and 8678-030-033, totaling ±314 acres. The 314± acre biology survey area consists of a 270± acre Tentative Tract Map (TTM) 70583, and two additional parcels. Both additional parcels are on the southern boundary of the survey area. The larger of the two additional parcels (Parcel A), totaling approximately 38 acres, is located immediately adjacent to the southeast corner of the TTM. The project would have no impact to Parcel A. The smaller of the two additional parcels (Parcel B), totaling approximately 6 acres, is located immediately adjacent to the southwest corner of the TTM. Approximately 2.83 acres of Parcel B falls within a proposed easement and would be impacted by the project. The project proposes to impact a total of ±90 acres, including the 2.83 acre easement. The remaining TTM area would be divided into various open space uses. An additional 0.18-acre offsite area on the eastern side of the project site would be impacted by the creation of an off-site cul-de-sac for the purposes of fire department access. This off-site improvement would be located on land owned by the County of Los Angeles.

Our assessment consisted of (1) a records search and literature review, conducted to determine what species of concern are in the project vicinity and proximity to closest documented special status species and (2) field reconnaissance, intended to identify plants and animals on the property and presence/absence of habitat for species of concern (3) protocol surveys for the California gnatcatcher.

1.1) Location

The site is located in the City of San Dimas east of the City of Glendora boundary (Figure 1). Specifically, the site is located just northeast of Glendora Country Club within Sections 27 and 34, Township 1 north, Range 10 west of the USGS Glendora 7.5' series quadrangle map (Figure 2) including portions of Wildwood Canyon, Shuler Canyon, Shay Canyon, Sycamore Canyon, and Spring Canyon.

The site is generally bounded as follows: to the west and northwest, immediately adjacent, by open or sparsely developed land currently proposed for development and existing residential development beyond; to the east by rural/large parcel development and residential development beyond to the southeast, city or county land and national forest and; to the south by heavily developed lands/residential housing; to the north by open space and the Angeles National Forest (Figure 3).



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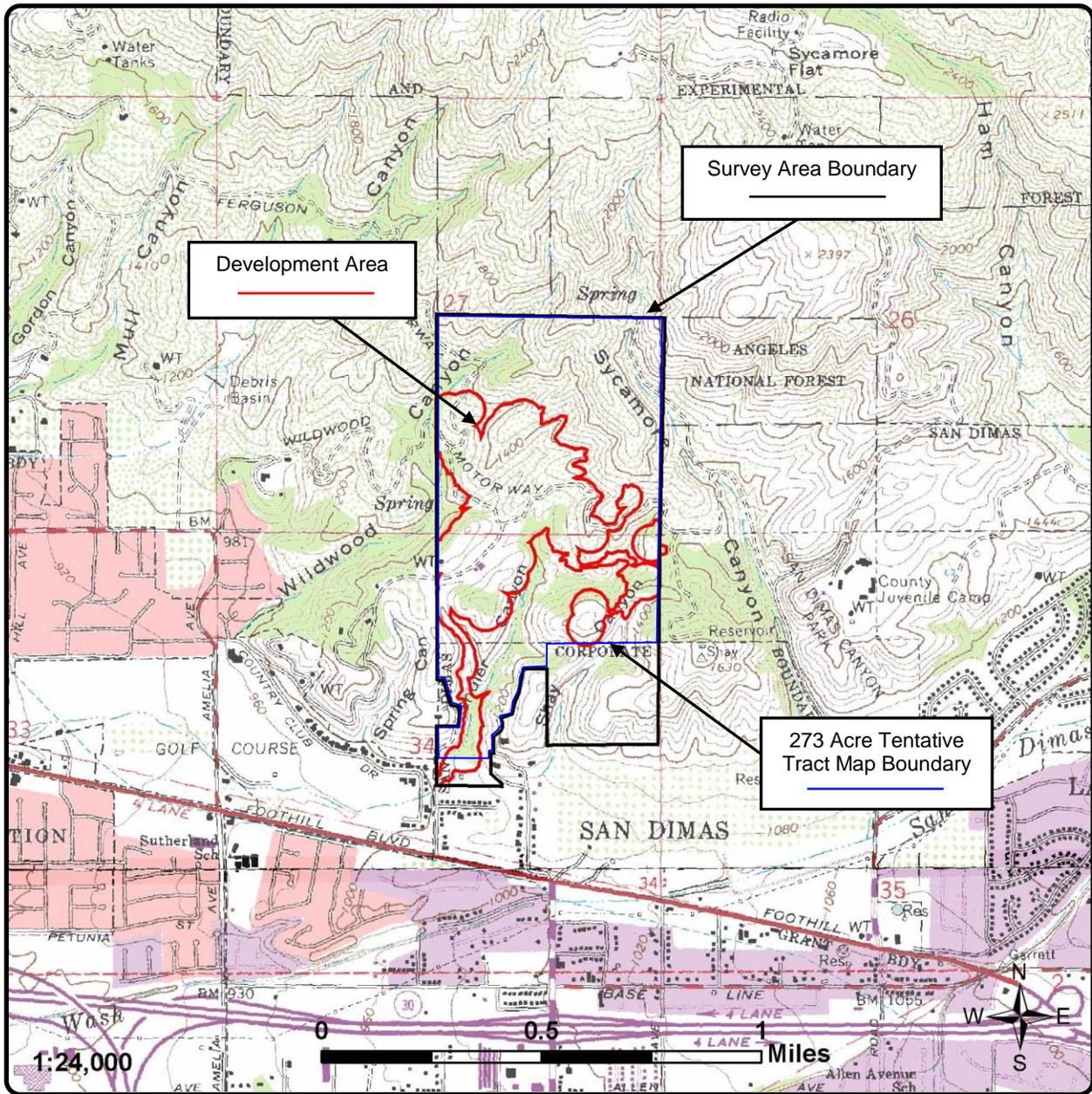
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STF-09-137
September 2010

Figure 1

Project Vicinity Map

TTM 70583, City of San Dimas
County of Los Angeles, California



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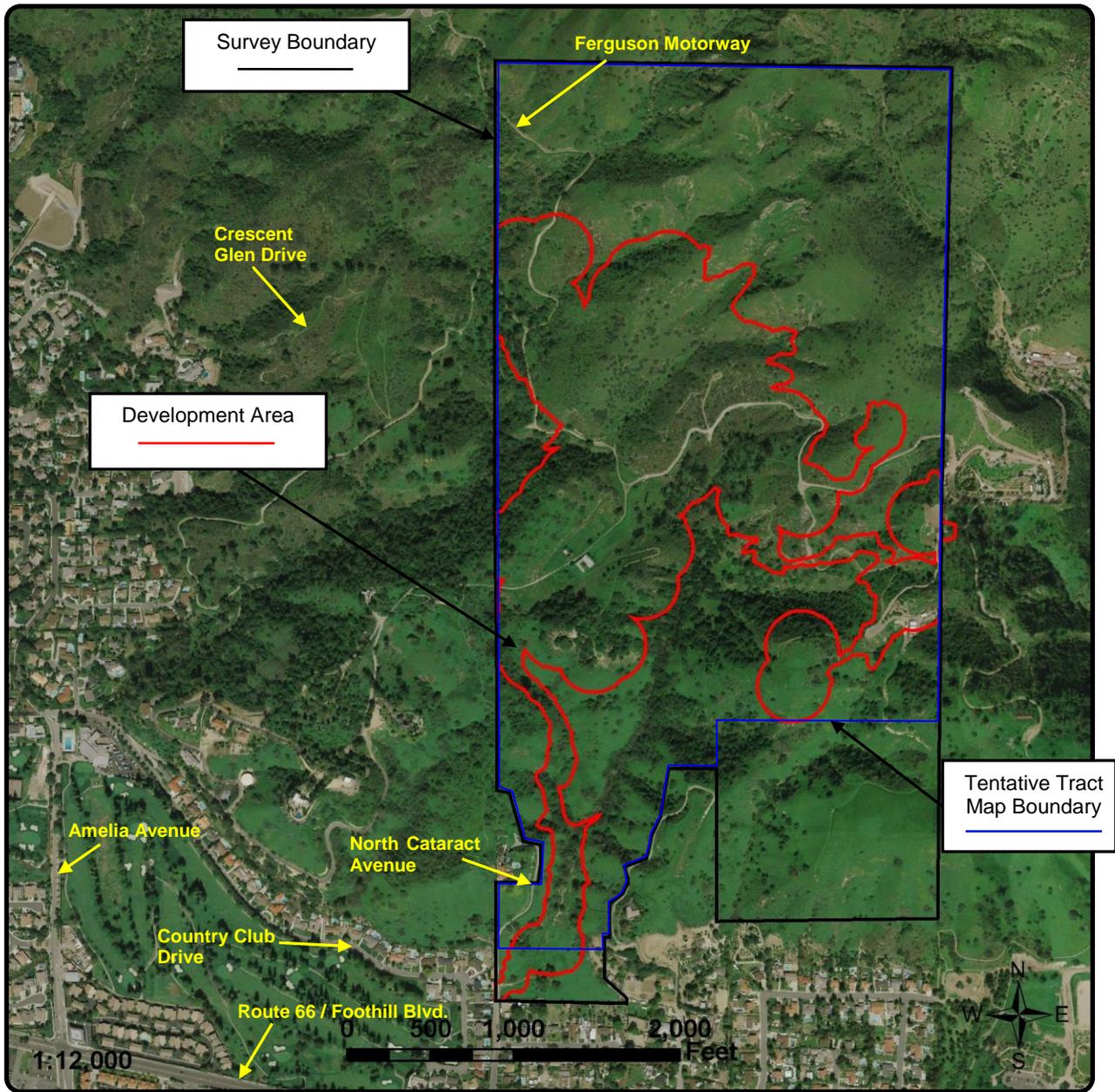
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Figure 2

Project Location Map
(USGS Glendora [1972] quadrangle)

TTM 70583, City of San Dimas
County of Los Angeles, California



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Figure 3
Aerial Photograph
(Photo provided by GlobeExplorer, 2008-03-01)

TTM 70583, City of San Dimas
County of Los Angeles, California

1.2) Vegetation and Setting

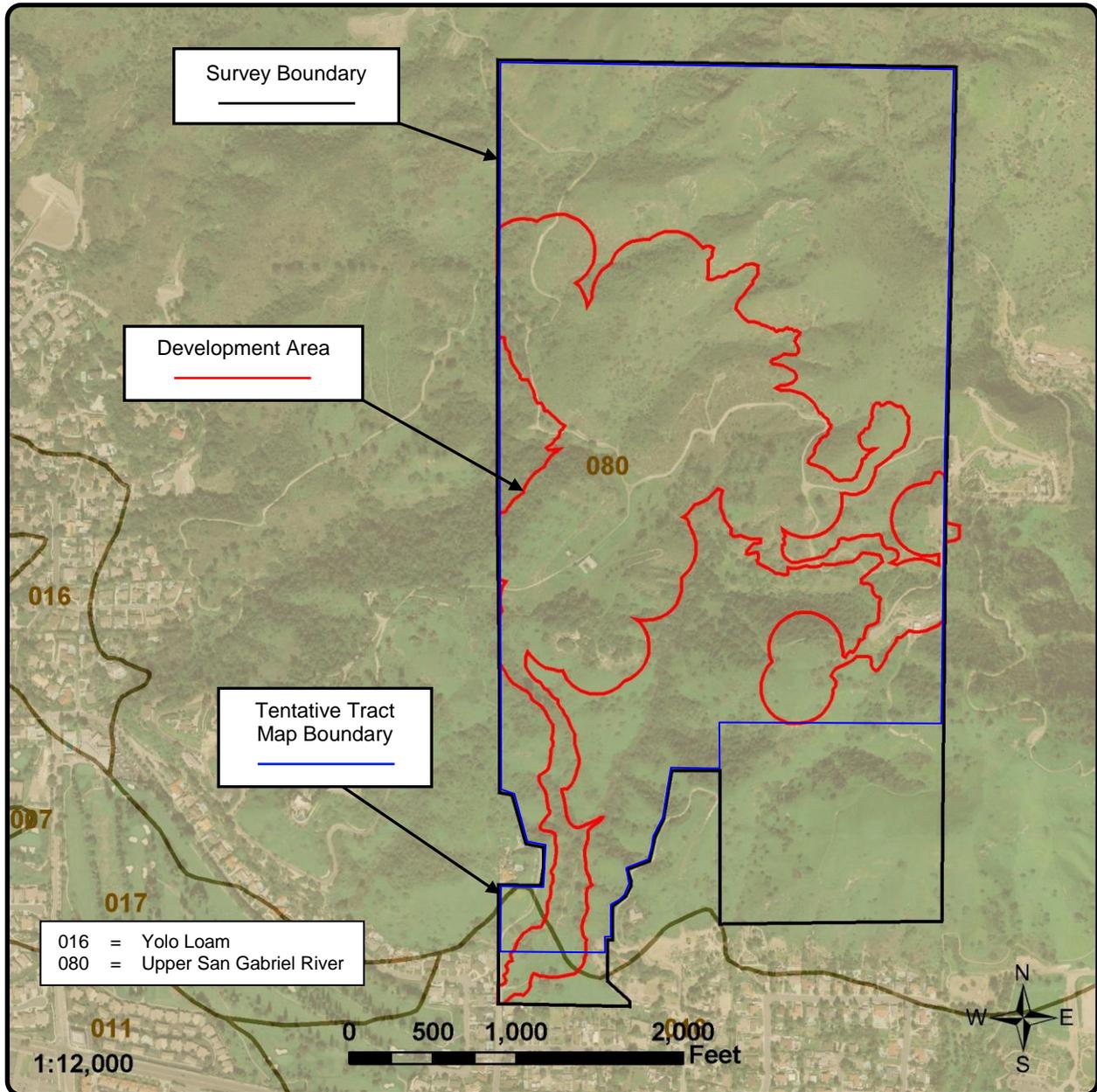
The site contains non-native grassland, coastal sage scrub, chaparral a mix of woodlands, consisting of coast live oak, walnut, *Eucalyptus*, and sycamore. Detailed vegetation descriptions are outlined in Section 4.2. Scattered throughout the site are inhabited and abandoned buildings and previous sites of buildings, as well as an abandoned horse stable and evidence of ranching. A Metropolitan Water District easement (60' wide) and an underground pipeline cross the property. Steep valleys and hillsides with ridgelines between create a variety of habitats.

1.3) Soils and Topography

Soils data for the survey area were obtained from the Los Angeles County Public Works, Water Resource Department (2006), and is based on the "Soils Map California, Reconnaissance Survey – Central Southern Area – Western Sheet (1917) prepared by University of California Agricultural Research Station for the U.S. Department of Agriculture, Bureau of Soils. The site was mapped as a mixture of Yolo loam (016/Y) and Upper San Gabriel River (080/USGR-F), with almost the entire site underlain by the Upper San Gabriel River soils and only the southwestern corner underlain by Yolo loam (Figure 4). Yolo soils are over 60 inches deep and are well drained. They have loam surface layers about 18 inches thick. A description of Upper San Gabriel River soils was not given.

The Geotechnical Report completed for the Northern Foothills Implementation Program EIR documented a second map done by the Soil Conservation Service (1994). L&L attempted to locate this map but was unable to access the document through the Natural Resources Conservation Service. According to Converse Consultants (1999) the map shows the lower most portion of the foothills as Vista-Amargosa soils and the low-lying alluvial terrace and San Dimas Wash as Hanford Soils. Hanford soils are 60+ inches deep, well drained with a coarse sandy loam surface layer. The Vista-Amargosa Association occurs on steep slopes (30-50% slope) underlain by bedrock. Vista Soils are 28-38 inches deep, well drained and have a coarse sandy loam surface layer. Amargosa soils are 14-20 inches deep, excessively drained and also have a coarse sandy loam surface layer.

Topographically, the site is composed of canyons and rolling hills, with a relatively flat area at the southwestern corner of the survey area. The site is located within the foothills of the San eastern Gabriel Mountains. The site has a combined maximum vertical relief of roughly 874 feet, with elevations ranging from approximately 1,010 to 1,884 feet above mean sea level (AMSL). The site generally increases in elevation from southwest to northeast with the highest point in the northeast corner of the property on a slope that leads up to a hilltop off-site. Surrounding topographic features in the project vicinity include gently to steeply sloping hills, ridgelines, and canyons.



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September 2010

Figure 4
Soils Map
(Photo provided by GlobeXplorer, 2008-03-01,
Soils from - <http://ladpw.org/wrd/publication>)

TTM 70583, City of San Dimas
County of Los Angeles, California

2.0) REGULATORY ENVIRONMENT

2.1) Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS), under the auspices of the federal Endangered Species Act (FESA) of 1973 (as amended), manages and protects species listed as endangered or threatened. An endangered species is defined as a species “in danger of extinction throughout all or a significant portion of its range” while a threatened species is defined as “likely to become endangered in the foreseeable future.”

“Take” of listed species is prohibited under Section 9 (a)(1)(B) of the FESA. The term “take” is defined as follows in Section 3 (18) of the FESA: “harass, harm, pursue, hunt, shoot, wound, trap, kill, capture or collect or to engage in any such conduct.” Harm is further defined as significant habitat alteration that results in death or injury to listed species by significantly impairing behavior patterns such as breeding, feeding, or sheltering. The USFWS can issue a permit for “take” of listed species incidental to otherwise lawful activities. Procedures for obtaining a permit for incidental take are identified under Section 7 of FESA for federal properties or where federal actions are involved, and are identified under Section 10 of FESA for non-federal actions.

2.2) Jurisdictional Determination of Wetlands, “Waters of the U.S.”

Three agencies generally regulate activities within streams, wetlands, and riparian areas in California: (1) the Army Corps of Engineers (ACOE) regulates activities under section 404 of the federal Clean Water Act; (2) the Regional Water Quality Control Board (RWQCB) regulates activities under section 401 of the federal Clean Water Act (CWA); and (3) the California Department of Fish and Game (CDFG) regulates activities within wetlands under Fish and Game Code Sections 1600-1616.

2.2.1) United States Clean Water Act, Section 404

The ACOE has jurisdiction over “Wetlands” and “Waters of the United States” under Section 404 of the Clean Water Act (CWA). Permitting is required for activities that will result in discharge of dredge or fill material into Waters of the United States or adjacent wetlands and associated habitat. By definition these include all waterways, streams, intermittent streams, and their tributaries that could be used for interstate commerce. The term “interstate commerce” has been broadly interpreted to include use by migratory waterfowl and out-of-state tourism. In non-tidal waters jurisdictional limits extend to the ordinary high water mark (OHWM), which is defined as that line on the shore established by fluctuations of water and indicated by physical characteristics such as clear natural line impression on the bank, shelving, changes in the character of soil, and destruction of the surrounding area. The upstream limit of ACOE

jurisdiction is that point on the stream where the OHWM is no longer perceptible. Since flow patterns vary drastically from event to event alluvial fans do not always exhibit an OHWM or other evidences of repeated water flow. That portion of an alluvial fan that experiences sheet flow is not generally regulated as Waters of the United States, however an inter-braided streambed, evidenced by an OHWM, is within ACOE jurisdiction. Vernal pools and other types of wetlands are also regulated by the ACOE as Waters of the United States.

2.2.2) United States Clean Water Act, Section 401

The RWQCB has jurisdiction over similar “Wetlands” and “Waters of the United States” under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act under the California Water Code. Permitting is required for activities that will result in a discharge of soils, nutrients, chemicals, detrital materials, or other pollutants into Waters of the United States or adjacent wetlands that will affect water quality of those bodies and the area watershed.

2.2.3) California Department of Fish and Game Code, Section 1600

The CDFG, through provisions of the CDFG Code (Sections 1600-1616), is empowered to issue agreements (“Streambed Alteration Agreement”) for projects that will adversely affect wildlife habitat associated with any river, stream, or lake edges. Streams and rivers are defined by the presence of a channel bed, banks, and intermittent flow. CDFG regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFG.

Determining limits of a wetland is not typically done in obtaining CDFG Agreements because the intent of the 1600 program is to safeguard riparian associated wildlife habitat. Riparian habitat includes willows (*Salix* sp.), mulefat (*Baccharis salicifolia*), and other vegetation typically associated with the banks of a stream or lake shoreline. In most situations wetlands associated with a stream or lake will fall within the limits of riparian habitat. Thus, the limits of CDFG jurisdiction based on riparian habitat will automatically include any wetland areas and may include additional areas that do not meet ACOE criteria for soils and/or hydrology (e.g., where riparian woodland canopy extends beyond the banks of a stream away from frequently saturated soils).

2.3) California Department of Fish and Game

2.3.1) California Endangered Species Act

California Endangered Species Act (CESA) definitions of endangered and threatened species parallel those defined in the FESA. The CESA defines an endangered species as “. . . a native species or subspecies of a bird, mammal, fish, amphibian, reptile or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes including loss of habitat, change in habitat, over exploitation, predation,

competition or disease.” Endangered species are in serious danger of becoming extinct and threatened species are likely to become endangered species in the foreseeable future (according to Sections 2062 and 2067, respectively, of the California Fish and Game Code). Candidate species are those under formal review by the CDFG for listing as endangered or threatened (Section 2067). Prior to being considered for protected status the CDFG designates a species as being of special concern. Species of special concern are those for which the CDFG has information indicating decline.

2.3.2) California Department of Fish and Game Code, Section 1600

This section allows the CDFG to issue agreements (“Streambed Alteration Agreement”) for projects that will adversely affect wildlife habitat associated with any river, stream, or lake edges. A detailed discussion of Section 1600 under the Fish and Game Code can be found in section 2.2.3 above.

2.3.3) California Natural Diversity Database

The California Natural Diversity Database (CNDDDB) is a database that ranks overall condition of sensitive species and vegetation communities on global (throughout its range) and state (within California) levels. Additionally, subspecies and varieties are assigned a ranking for global condition as well. Ranking is numerical ranging from 1 to 5, with 1 indicating very few remaining individuals or little remaining habitat and 5 indicating a demonstrably secure to ineradicable population condition. State ranks may also include a threat assessment ranging from 1 (very threatened) to 3 (no current threats known).

2.4) California Native Plant Society

The California Native Plant Society (CNPS) has cataloged California's rare and endangered plants into lists according to population distributions and viability. These lists are numbered and indicate the following: (1A) presumed extinct in California; (1B) rare, threatened, or endangered throughout their range; (2) rare, threatened, or endangered in California, but more common in other states; (3) more information is needed to establish rarity; and (4) plants of limited distribution in California (i.e., naturally rare in the wild) but whose populations do not appear to be susceptible to threat.

2.5) California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires identification of environmental effects from discretionary projects. While the lead agency may at their discretion, find overriding considerations, generally, significant effects are to be mitigated by avoidance, minimization, rectification, or compensation whenever possible.

Effects to all state and federal listed species are considered significant under CEQA. In addition to formally listed species, CEQA Section 15380(d) considers effects to species that are demonstrably endangered or rare as important or significant. These definitions can include state designated species of special concern, federal candidate and proposed species, CNDDDB tracked species, and California Native Plant Society 1B and 2 plants.

Appendix G of the CEQA Guidelines specifically addresses biological resources and encompasses a broad range of resources to be considered.

2.6) Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711) is an international treaty that makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Sections 3503, 3503.5, and 3800 of the CDFG Code prohibit the take, possession, or destruction of birds, their nests, or eggs. The MBTA requires that project-related disturbance at active nesting territories be reduced or eliminated during critical phases of the nesting cycle (February 1 through August 31). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) or loss of habitat upon which the birds depend could be considered “take” and constitute a violation of the MBTA.

2.7) City of San Dimas Municipal Code Chapter 18.162 Tree Preservation

The City of San Dimas has outlined tree preservation requirements in Chapter 18.162 of the municipal code. Most mature significant trees require a permit for removal or relocation. Within the code “mature significant trees” are defined:

A mature significant tree shall refer to any tree within the city of an oak genus which measures eight inches or more in trunk diameter and/or any other species of trees which measure ten inches or more in trunk diameter and/or a multi-trunk tree(s) having a total circumference of thirty-eight inches or more; the multi-trunk tree shall include at least one trunk with a diameter of a minimum of four inches.

The trunk diameter shall be measured at a point thirty-six inches above the ground at the base of the tree.

3.0) METHODS AND PERSONNEL

3.1) Literature Review

Pertinent literature was reviewed to identify local occurrences and habitat requirements of special status species and communities occurring in the region. Literature reviewed included compendia provided by resource agencies (CDFG 2003a, 2003b; USFWS 1999), the most current CNDDDB (2010) reports and CDFG BIOS maps for the vicinity. Background documents for the survey area were also reviewed and selected information has been incorporated. These reports include: (1) San Dimas Northern Foothills Development and Infrastructure Study (Nov. 1998) LSA/Laughlin & Associates; (2) Northern Foothills Implementation Program, Program Environmental Impact Report (Mar. 1999) RBF, (3) Glendora Ranch Biological Report (Aug. 2001) Chambers Group, (4) L&L Special Status Plant Species Survey, Coastal California Gnatcatcher Survey Update, Tree Constraints/Mature Significant Tree Survey, and a review of Jurisdictional Areas, TTM 70583, City of San Dimas, California (2009) and (5) Bonterra vegetation mapping, delineation map and initial study application (2008). L&L also reviewed and incorporated portions of a prior study by Bonterra (fieldwork April 08) including a habitat map and jurisdictional delineation maps /exhibits.

Latin names of plants follow *The Jepson Manual* (Hickman 1993). Latin names of animals follow *A Field Guide to Western Reptiles and Amphibians* (Stebbins 1985) for reptiles and amphibians, *California Mammals* (Jameson and Peeters 1988) for mammals, American Ornithologists' Union (1983, 1989) and National Audubon Society, *The Sibley Guide to Birds* (2000) for birds, and *American Insects: A Handbook of the Insects of America North of Mexico* (Arnett 2000) for insects.

3.2) General Biological Field Methods

Field surveys were conducted to identify and verify the vegetation communities on the 314 acre project site as previously mapped by Bonterra (2008). All habitat types within the survey area were visited on foot where possible and inaccessible areas (steep slopes of greater than 2:1 and/or areas with poison oak understory) were observed from adjacent vantage points or with the use of binoculars. General survey limitations included areas with dense concentrations of poison oak, steep and impassable slopes, obstructing patches of cactus plants, and dense and/or invasive ground cover that limited accessibility of some areas. All inaccessible areas were consistent with surveyed area and no habitat type was excluded from the survey. All species observed were recorded.

3.3) Botanical Survey Methods

Approximately 56 person-hours were spent on the site by Guy Bruyeya looking for botanical species and habitats as outlined in the table below. Botanical surveys were performed on the entire 314 acre survey area. Survey methods followed the CDFG *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Communities*, Updated 2009. Surveys were comprehensive and floristic in nature and were not limited to the sensitive species identified as potentially occurring in the survey area. Surveys were conducted in early, mid and late season in order to both cover the site and to space visits throughout the growing season. Surveys were conducted as late as August 2010 in an attempt to identify the presence/absence of some late blooming species. Reference sites were visited for certain species with potential habitat when they existed in the project vicinity, to verify the species was currently blooming.

Table 1. Botanical Survey Information.

Date	Time PST	Weather	Wind	Biologist	Survey
03-12-10	0800-1500	Partly Cloudy, 56-69°F	0-2 F	Bruyeya	Botanical
03-21-10	0900-1500	Clear, 63-80°F	1-3 F	Bruyeya	Botanical
04-01-10	0900-1600	Overcast, 58-65°F	1-3 F	Bruyeya	Botanical
04-18-10	1200-1500	Clear, 55-78°F	0-1 F	Bruyeya	Botanical
04-22-10	1200-1500	Mostly Cloudy, 42-57°F	0-1 F	Bruyeya	Botanical
04-29-10	1200-1500	Clear, 50-65°F	0-1 F	Bruyeya	Botanical
05-04-10	1200-1500	Clear, 58-80°F	1-1 F	Bruyeya	Botanical
05-12-10	1200-1500	Clear, 54-74°F	1-1 F	Bruyeya	Botanical
05-21-10	1200-1500	Partly Cloudy, 57-73 °F	1-2 F	Bruyeya	Botanical
06-11-10	0900-1200	Partly Cloudy, 59-68°F	1-3 F	Bruyeya	Botanical
06-17-10	0900-1200	Partly Cloudy, 65-79°F	1-1 F	Bruyeya	Botanical
07-05-10	0900-1200	Mostly Cloudy, 63-76°F	0-1 F	Bruyeya	Botanical
08-01-10	0700-1000	Partly Cloudy, 65-71°F	0-1 F	Bruyeya	Botanical

The botanical survey expanded the general biological survey methods so as to more thoroughly cover the site. As with the general survey, all habitat types within the survey area were visited on foot where possible and inaccessible areas were observed from adjacent vantage points or with the use of binoculars. Access to some areas was limited, but inaccessible areas were consistent with surveyed area and no habitat type was excluded from the survey.

The site was surveyed by conducting a series of transects across the survey area where possible, stopping periodically for observations and notations. All plant taxa observed during

surveys were noted and are listed in Appendix A. This field survey was conducted during daylight hours from 0800 to 1600 PDT (Table 1). Temperatures recorded during the survey ranged from 42° to 80° F and conditions ranged from mostly cloudy (marine layer common) to clear with little or no wind condition (at or less than 3 on the Beaufort scale).

Plants of uncertain identity were photographed or collected and subsequently identified from keys, descriptions, and illustrations in Abrams (1923, 1944, 1951, 1960), Abrams and Ferris (1960), Hickman (1993), Munz (1974), and Parker (1999). These procedures provide a general assessment of habitat and vegetation on a site and act as a tool to determine the probability of special status species occurring in the survey area. A species list is included in Appendix A. When species were collected, they were only sensitive species that do not require an incidental take permit or scientific collection permit and were only collected where a substantial population was observed.

Rainfall in southern California in 2010 exceeded levels in recent years and many known locations for sensitive species produced flowering plants this year. Of course, drought conditions can take more than one year to recover from and not all seeds germinate every year. Surveys conducted over multiple years and at varying times throughout the year provide the most comprehensive data.

Where identified sensitive species were mapped, a GPS coordinate taken (multiple coordinates if a large population was identified), site –specific characteristics of habitat, soil, topography, etc., were noted, number of individuals actual or estimated were taken and digital photographs were taken to record the species, habitat and condition of the site. The California Native Species Field Survey Form was completed for each sensitive species occurrence/group and is included in Appendix B.

3.4) California Gnatcatcher Survey Methods

Presence-absence surveys for California gnatcatcher (*Polioptila californica*) (CAGN) may be conducted year round, but Service recommended guidelines vary depending on when the survey is conducted. During the breeding season, which extends from March 15 to June 30, a minimum of six (6) surveys should be conducted no less than one (1) week apart. Out of breeding season surveys stipulate a minimum of nine (9) surveys not less than two (2) weeks apart. Guidelines also recommend that surveys be conducted between the hours of 0600 and 1200 and during weather conditions suitable for avian activity. Focused surveys will not be considered valid if during a focused survey visit one or more of the following weather conditions occur: fog, drizzle, rain, excessive heat, or wind (Service 1997). All focused survey visits on the subject property were conducted during suitable time periods and weather conditions for avian activity as stipulated in the most recent Service guidelines.

For this study, Guy Bruyeya conducted a CAGN breeding season survey of the site for a total of six (6) person-days on six dates (April 18, 22, 29, May 4, 12, 21, 2010) during the six-week focused survey period (Table 2). This level of survey effort, as outlined above, meets the standards recommended in the Service's most recently published CAGN survey guidelines. Survey times and other information are presented in Table 2.

Table 2. Focused Gnatcatcher Survey Information.

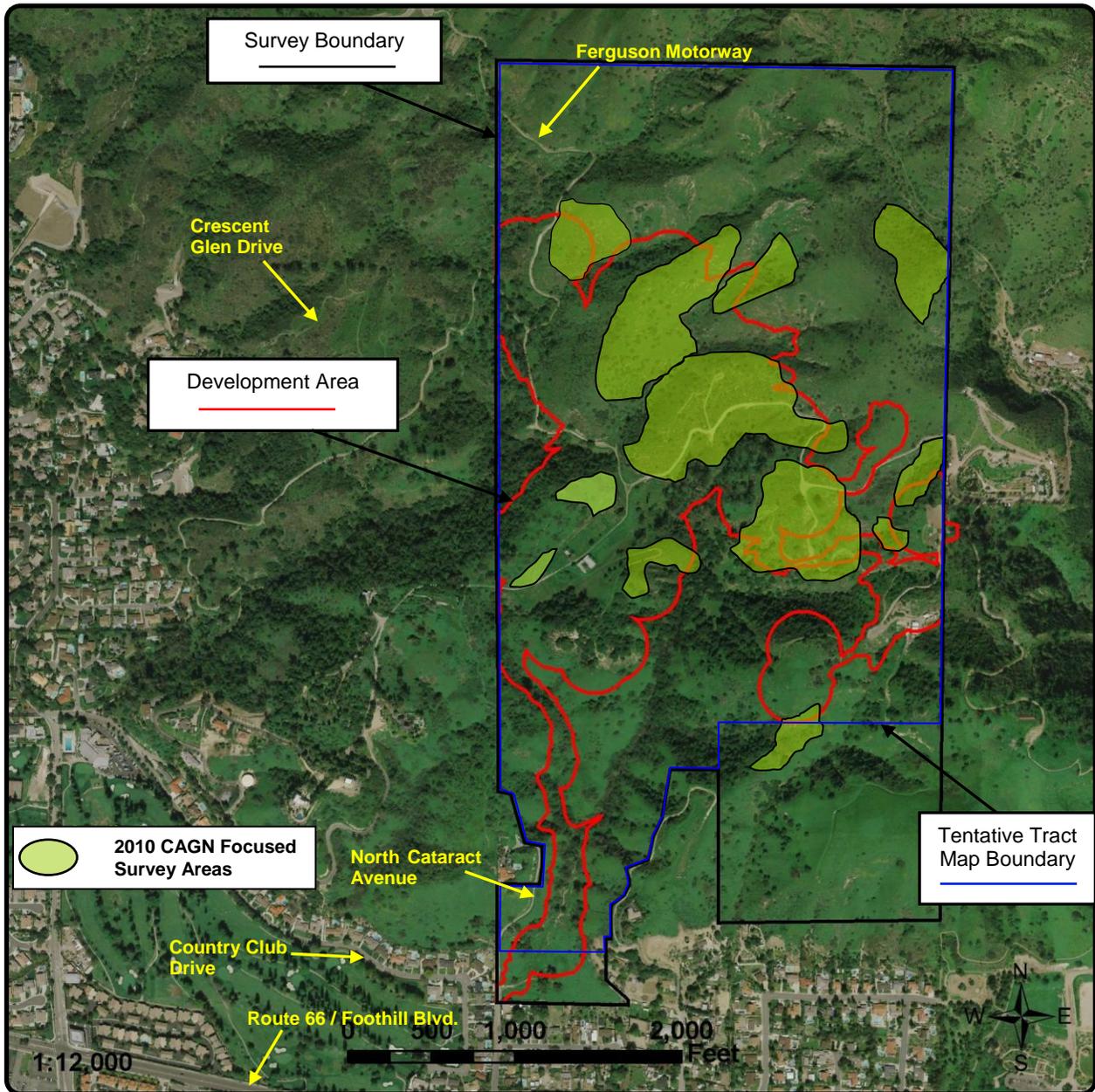
Date	Time PST	Weather	Wind	Biologist	Week	Results
04-18-10	0600-1200	Clear, 55-78°F	0-1 F	Bruyeya	1	No CAGN
04-22-10	0600-1200	Mostly Cloudy, 42-57°F	0-1 F	Bruyeya	2	No CAGN
04-29-10	0600-1200	Clear, 50-65°F	0-1 F	Bruyeya	3	No CAGN
05-04-10	0600-1200	Clear, 58-80°F	1-1 F	Bruyeya	4	No CAGN
05-12-10	0600-1200	Clear, 54-74°F	1-1 F	Bruyeya	5	No CAGN
05-21-10	0600-1200	Partly Cloudy, 57-73 °F	1-2 F	Bruyeya	6	No CAGN

Portions of the site were excluded due to absence of suitable CAGN habitat. These excluded portions of the site consist of highly disturbed areas associated with past or ongoing habitation/agricultural activities that contain no natural habitat, heavily disturbed native habitats and native habitats that are not considered habitat for the CAGN.

The current study assessed the entire 314 acre property. Analysis of the previous studies including the L&L 2009 focused CAGN survey, and the current site conditions, as evaluated during the March 12, 21 and April 1 site visits by Guy Bruyeya, resulted in the focused survey concentrating on an area of approximately ±75 acres of potentially suitable habitat. The focused CAGN survey area covered terrain between an elevational range of 1200 and 1400± feet above sea level. One (1) survey day each week was performed for a series of 6 weeks.

The present focused survey for CAGN consisted of systematically surveying potential habitat on foot (Figure 5). All potential habitat areas were surveyed by walking slowly and methodically along random transect routes. During the early portion of this study, at selected points throughout these transects, "pishing" sounds were used in an effort to detect CAGN on the site.

As per recommended Service guidelines when conducting focused CAGN surveys, care was taken to avoid "harassing" nesting birds during this study.



L&L Environmental, Inc.

*BIOLOGICAL AND CULTURAL
INVESTIGATIONS AND MONITORING*

STF-09-137
September 2010

Figure 5

Gnatcatcher Survey Area
(Photo provided by GlobeExplorer, 2008-03-01)

TTM 70583, City of San Dimas
County of Los Angeles, California

3.5) California Red-legged Frog Assessment Methods

A site assessment for the federally threatened California Red-legged frog (*Rana draytonii*) (CRLF) was conducted on April 4, 5 and 6, 2010. The assessment was conducted by biologist Scott Cameron, who holds a current federal Section 10(a) permit (TE-808242-4) to conduct focused surveys for the CRLF. Assessment methods followed the USFWS *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog*, August 2005. The majority of assessment methods outline the assessment of aquatic conditions for suitability; however, no aquatic habitat was present in the survey area.

Table 3. California Red-legged Frog Assessment Information.

Date	Time PST	Weather	Wind	Biologist
04-04-10	0800-1600*	Partly Cloudy -Clear, 55-63°F	1-3 F	Cameron
04-05-10	0800-1600*	Partly Cloudy (slight drizzle/mist), 52-62°F	1-2 F	Cameron
04-06-10	0800-1600*	Clear, 50-64°F	1-5 F	Cameron

* site visits were conducted between 0800 and 1600 hrs. Not over the entire period.

Evaluation of the site focused on the determining if suitable CRLF aquatic and upland habitat is present in the survey area. A series of meandering transects were walked to achieve a high percentage of visual coverage of the survey area. Portions of the site evaluated included those that would be considered jurisdictional (i.e., those features supporting drainage features or that supported riparian-associated vegetation types). Those features were present within four canyons (Shay, Shuler, Sycamore, and Wildwood), as shown in Figure 10, Jurisdictional Feature Map. Plant and wildlife species observed were identified and recorded. Additionally, a review of surrounding areas was conducted and available aerial photographs were examined for potential habitat.

The site is within the historic range of the species and is mapped by the CDFG (BIOS) with the northern 80% of the site falling within the mapped limits of the range of the species, however, the USFWS (2002) identifies the area as not within the current range of the species.

4.0) RESULTS

4.1) Literature Review Results

4.1.1) CNDDDB

Certain plants and animals have been listed as threatened or endangered under state or federal Endangered Species Acts. Other species have not been formally listed but declining populations or habitat availability are reasons for concern in regard to their long-term viability. These species are included in lists compiled by resource management agencies or private conservation organizations. In this report the term “special status species” refers to all species included in one or more compendia or formal list of threatened or endangered species. The 2010 CNDDDB was examined to determine if sensitive species have been previously documented in the survey area. The CDFG Bios site was examined for specific species information such as current or historic range, critical habitat, etc.

The site is located within designated critical habitat for the thread-leaved brodiaea. The northwestern corner of the survey area is included in the critical habitat (USFWS, 2005) and proposed revised critical habitat (USFWS, 2009). A small portion of the proposed development (estimated at 3.95 acres) falls within the current critical habitat boundaries, however, the pending revised critical habitat falls outside of the proposed development. No other critical habitat was identified within the project boundaries.

As stated above in Section 3.4, a portion of the site is identified on the CDFG BIOs as within the range of the red-legged frog, however, the USFWS (2002) identifies the area as not within the current range of the species. The site is not identified as occurring within the range of the yellow-legged frog. Similarly, the site is located within the historic range of the Quino checkerspot butterfly, but is outside the current known range of this species (USFWS, 2003).

4.1.2) Previous Reports

Each of the previous reports provided information on habitat that occurs in the survey area, potential habitat types, general and special status species that may occur in the survey area or immediately adjacent, or may be of concern in the area. Also relevant were the species that had previously been observed in the survey area or in the project vicinity and previous surveys of the project site that include jurisdictional area, tree survey data, wildlife corridor movement and migratory bird data. The following is a short summary of the key biological data from each report.

- (1) *San Dimas Northern Foothills Development and Infrastructure Study* (Nov. 1998) LSA Associates, Inc.; This report examines 2976 acres of land in the San Dimas northern foothills. Due to the size of the project area the biological portion of this study was evaluated using aerial photographs, literature sources and a single field day. Plant

communities identified on the site included chaparral, coastal sage scrub, grassland, woodland and riparian scrub. (Based on the map, the current Brasada survey area included only grassland, woodland, mixed grassland/coastal sage scrub, developed/disturbed and possibly mixed coastal sage scrub/chaparral). Due to the generality of the study, virtually all wildlife species of the local foothill ecosystem were assumed to be present on-site or use the site as part of a larger home range. Wildlife species expected to be present and sensitive species that may use the project site are listed. The sensitivity of plant communities are outlined as well as information that the City of San Dimas is enrolled in the initial planning stages of a NCCP covering coastal sage scrub communities in Los Angeles County.

- (2) *Northern Foothills Implementation Program, Program Environmental Impact Report* (Mar. 1999) RBF, and the supporting document located in 14.7 Biological Resources portion of the EIR, *San Dimas Northern Foothills Project Biological Technical Report* (Feb. 1999) by BonTerra Consulting. This report examines approximately 3000 acres including the current survey area, which falls in the southwest corner of the 3000 acre study area. The document identifies the potential for the numerous sensitive plants and animals to occur within the northern foothills area. All of these species have been included in the evaluation of this property. The project also lists sensitive plant communities such as native grasslands, mixed willow riparian forest, coast live oak riparian forest and coastal sage scrub as occurring within the area. And indicates that the native trees will need to be surveyed in order to identify and mitigate for those that will be impacted under the City of San Dimas Tree Ordinance. Mitigation measures for development within this area are outlined in the report under BIOS 1-5 and in the Technical Report under Section 5.0 Mitigation Measures. Where appropriate these measures have been included in the Mitigation Section of this report (Section 6.0).
- (3) *Glendora (Gordon) Ranch Biological Report* (Aug. 2001) Chambers Group. This project is adjacent to the northwest corner of the Brasada project survey area and evaluates a 160 acre parcel of land. This report documented the presence of the state-listed endangered thread-leaved brodiaea and two sensitive vegetation communities, coastal sage scrub and southern coast live oak riparian forest within the parcel. Sensitive wildlife observed on-site included the southern California rufous-crowned sparrow, cactus wren, and coast range newt. Impacts to the two bird species are not considered significant in CEQA terms and the location of the newt fell outside of the proposed impacts.
- (4) *L&L Special Status Plant Species Survey, Coastal California Gnatcatcher Survey Update, Tree Constraints/Mature Significant Tree Survey, and a review of Jurisdictional Areas, TTM 70583, City of San Dimas, California* (2009). This survey only evaluated the 103 (originally estimated at 130±) acre development area of the 314 acre site and did not include a biological assessment of impacts. None of the sensitive botanical species identified in previous reports as having the potential to occur on-site were observed during focused surveys. Sensitive species observed within the development area included the coastal cactus wren, Cooper's hawk and loggerhead shrike. Impacts to these species are not considered significant under CEQA, with the exception of nesting migratory birds. Two inactive nests were observed. Potential habitat for the migratory burrowing owl was also observed. Preconstruction surveys to identify the presence/absence of nesting migratory birds including the burrowing owl were recommended.

The site also supports numerous “significant” trees as outlined in the City of San Dimas Tree Ordinance (Section 2.7). A tree survey was conducted and identified 220 coast live oak, 138 walnut, 5 sycamore, and 67 *Eucalyptus* trees within the proposed project footprint and mapped as meeting the City of San Dimas definition of a “mature significant tree.” (A summary is included in Section 4.6, Data is included in Appendix A).

- (5) Finally, fieldwork data and mapping by Bonterra in support of the Initial Study was used as a basis for this document in that the vegetation mapping was verified and accepted as reflecting current (2009 and 2010) conditions and then used to estimate impacts to vegetative communities (Figure 11). The delineation data/map was used to estimate jurisdictional drainages within the survey and development area (Figure 12). Estimated planned impacts to drainages within the proposed project footprint require regulatory (404/401/1602) permits and updated ACOE forms according to the new Arid West Guidelines.

4.2) Vegetation Series

Vegetation and habitat mapping was previously completed by Bonterra Consulting in April of 2008 (Figure 6). During this survey habitat classifications were verified and compared to ensure mapping was still accurate. Vegetation types present in the survey area include coastal sage scrub (some mixed with chaparral, non-native grassland, and/or elderberry scrub), mixed chaparral (some with non-native grassland and ornamentals), non-native grassland (some with ornamentals), elderberry scrub, woodland areas including sycamore-coast live oak-walnut, sycamore/coast live oak, coast live oak/walnut and walnut. Also within the survey area were disturbed, developed and areas vegetated only with ornamentals.

Level of disturbance in the survey area is moderate, mostly due to existing and previous agricultural/ranching uses. The property is currently occupied, with evidence of greater or more extensive past uses resulting in invasive non-native grass cover in disturbed areas. Away from occupied/disturbed areas, native habitats are present. Portions of the site are fenced and site access is restricted through the use of locked gates. Otherwise, steep terrain and/or dense vegetative cover prevent or limit vehicular travel. Some off-road vehicle, pedestrian, biking, and equestrian activity is evident, but is mostly restricted to a network of unpaved roads requiring authorized access. Certain areas of the site were inaccessible resulting in survey limitations. Steep slopes, dense stands of cactus, patches of poison oak and other limitations resulted in the necessity to view some areas from a distance with the use of binoculars and telephoto lenses. These inaccessible areas were similar to those visited on foot and are included in the habitat exhibits.

The small offsite area that will be disturbed in the creation of the eastern half of a double cul-de-sac is not shown in the habitat map, but will impact 0.18 acres.

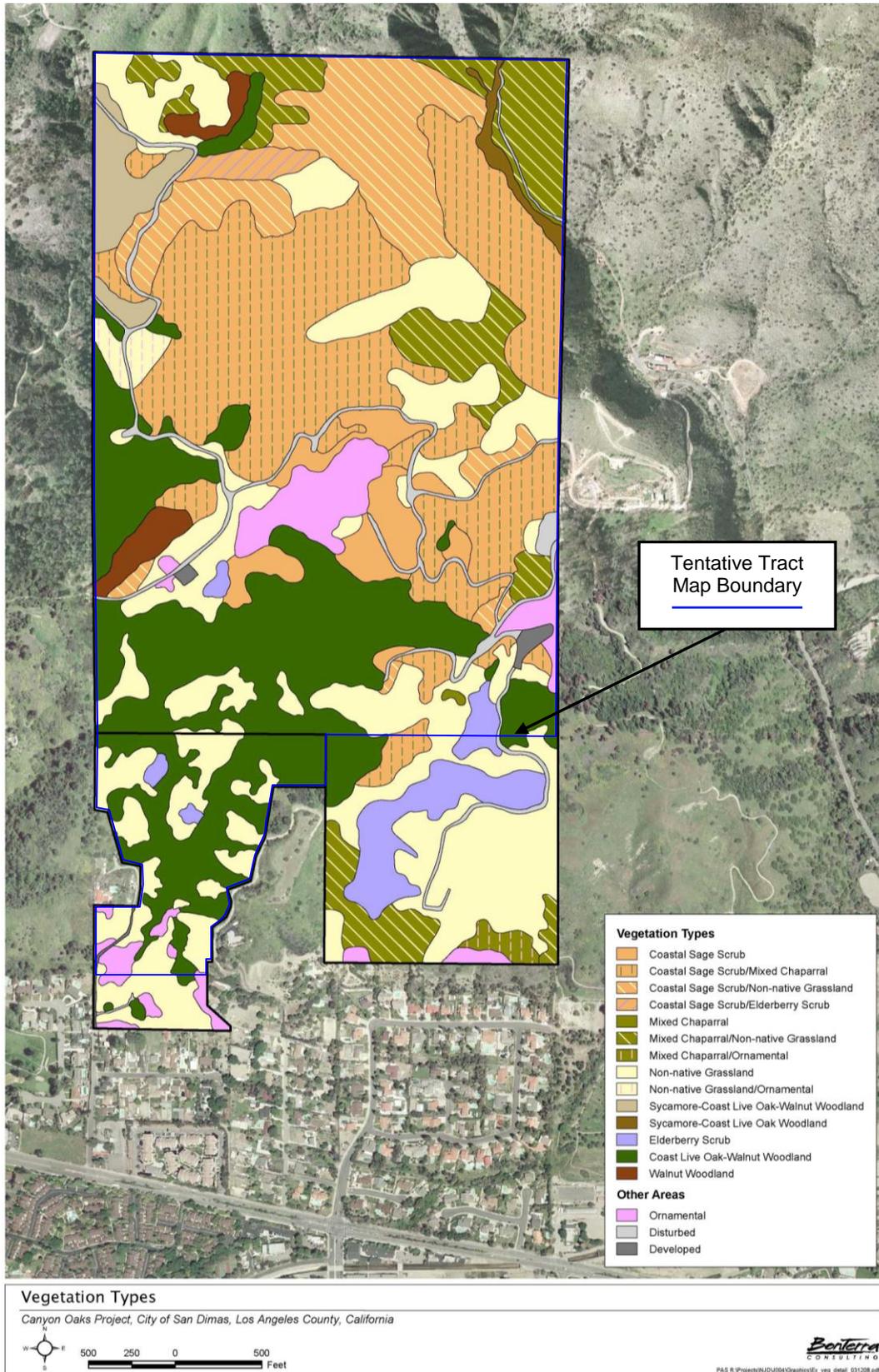


Figure 6. Bonterra Vegetation Map of the Survey Area

Table 4. Vegetation Communities

Plant Community	Survey Area	
	Acreage On-Site	Acreage Off-Site
Coastal Sage Scrub (CSS)	10.12	
CSS/Mixed Chaparral	70.93	
CSS/NNG	25.74	0.08
CSS/Elderberry Scrub	2.60	
Mixed Chaparral	0.18	
Mixed Chaparral/NNG	25.44	
Mixed Chaparral/Ornamental	0.69	
Sycamore-Coast Live Oak-Walnut Woodland	6.52	
Sycamore-Coast Live Oak Woodland	1.85	
Elderberry Scrub	10.40	
Coast Live Oak-Walnut Woodland	62.05	
Walnut Woodland	4.05	
Non-native Grassland (NNG)	70.39	
NNG/Ornamental	2.23	
Ornamental	11.05	
Disturbed	8.56	0.10
Developed	1.10	
Total	313.9	0.18

4.2.1) Coastal Sage Scrub (California Sagebrush-California Buckwheat Series, Coast Prickly-pear Series, Sawyer Keeler-Wolfe)

Coastal sage scrub (CSS) typically contains mostly drought-deciduous shrubs with small leaves. California buckwheat (*Eriogonum fasciculatum* var. *foliolosum*) and California sagebrush (*Artemisia californica*) dominate this vegetation community. A mixture of disturbed to relatively undisturbed CSS is present at the northern approximately one-half of the site where it mixes with non-native grassland, mixed chaparral and elderberry scrub. Plant densities ranged from 20-80% cover depending on slope exposure, level of disturbance, and other factors. Native shrubs and other conspicuous plants observed in these areas include laurel sumac (*Malosma laurina*), white sage (*Salvia apiana*), coast prickly pear (*Opuntia littoralis*), deerweed (*Lotus scoparius*) and California brickellbush (*Brickellia californica*).

A matrix of open patches found within typical CSS areas are inhabited with native low-growing annuals, which are mostly conspicuous during the spring and early summer. Due to invasive non-native grass cover throughout most CSS areas of the site, large open patches inhabited with native annual cover are relatively scarce. Annuals observed in small openings and along unpaved road or trail edges included (but were not limited to) slender tarweed (*Deinandra fasciculata*), wishbone bush (*Mirabilis californica*), wild hyacinth (*Dichelostemma capitatum*), slender pectocarya (*Pectocarya linearis*), dot-seed plantain (*Plantago erecta*), lilac mariposa lily (*Calochortus splendens*), cliff malacothrix (*Malacothrix saxatilis*) and soap plant (*Chlorogalum pomeridianum*).

Coast prickly-pear Series (Sawyer Keeler-Wolfe) is often considered part of the coastal scrub. It differs from coastal sage scrub by the inclusion of substantial patches of prickly-pear and in plant height and cover, but overall they differ little in species composition. On some south facing slopes characterized by CSS habitat, mainly in the center of the project area, the coast prickly pear is one of the dominant species and is so abundant as to be impassable in areas.

4.2.2) Mixed Chaparral (Chamise Series, Sawyer Keeler-Wolfe)

Mixed chaparral (MC) typically contains a diverse group of evergreen woody plants mostly inhabited by sclerophyllous shrubs with broad leaves. A common associate of this community observed commonly on the site is chamise (*Adenostoma fasciculatum*). Other conspicuous shrubs observed include toyon (*Heteromeles arbutifolia*), scrub oak (*Quercus berberidifolia*), poison oak (*Toxicodendron diversilobum*), lemonadeberry (*Rhus integrifolia*), thick-leaved lilac (*Ceanothus crassifolius*), hollyleaf cherry (*Rhamnus ilicifolia*) and spiny redberry (*Rhamnus crocea*). Other plants observed in more open MC areas include sawtooth goldenbush (*Hazardia squarrosa*), sticky monkeyflower (*Mimulus aurantiacus*), southern honeysuckle (*Lonicera subspicata*), currant (*Ribes* species), wild cucumber (*Marah macrocarpus*) and chaparral yucca (*Yucca whipplei*).

MC is present throughout much of the undisturbed portions of the property, on hillsides and ridge tops, and mixes with CSS areas dominated by California buckwheat. Although most MC areas may contain virtually impenetrable thickets up to ten feet in height, most MC areas on the subject property are less densely vegetated, probably due to past clearing and recreational uses. A poorly developed understory is usually present in association with MC areas, but non-native grass cover has invaded most MC associated areas of the site. Annuals observed along some road edges and other open MC areas included (but are not limited to) golden yarrow (*Eriophyllum confertiflorum*), farewell-to-spring (*Clarkia bottae*), California fuchsia (*Epilobium cannum*), scarlet larkspur (*Delphinium cardinale*), purple nightshade (*Solanum xanti*), California everlasting (*Gnaphalium californicum*) and perezia (*Acourtia microcephalla*).

4.2.3) Coastal Sage/Mixed Chaparral (Chamise-White Sage Series, Sawyer Keeler-Wolfe)

This vegetation community is a mixture of sclerophyllous low chaparral shrubs and drought-deciduous sage scrub species, and is regarded as an ecotone between the two communities. This vegetation community contains floristic elements of both coastal sage scrub and lower chaparral, and is present within the northern two-thirds of the site away from coast live oak and California walnut woodland. Many native shrubs typically associated with this vegetation community are present on the subject property, and include chamise, laurel sumac, spiny redberry, sugar bush (*Rhus ovata*), white sage and black sage (*Salvia mellifera*). Other conspicuous plants observed include blue elderberry (*Sambucus mexicana*), cotton-thorn

(*Tetradymia comosa*), lanceleaf dudleya (*Dudleya lanceolata*), cudweed aster (*Lessingia filaginifolia*), and fiesta flower (*Pholistoma auritum*).

4.2.4) Non-native Grassland (California Annual Grassland Series, Sawyer Keeler-Wolfe)

Non-native grassland (NNG) is dominated by native and mostly non-native grass species, and may include native and non-native forbs and other low-growing annuals. Areas containing NNG and a mixture of CSCS, CSS, and MC primarily co-occur on the northern two-thirds of the subject property. In addition, NNG occurs on the southern one-half of the site within coast live oak woodland and California walnut woodland understory. The most commonly observed species included ripgut (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), softchess (*Bromus hordeaceus*), slender wild oat (*Avena barbata*), common wild oat (*Avena fatua*) and Mediterranean grass (*Schismus barbatus*). A mixture of native and non-native low-growing annuals is present within NNG areas that are less densely inhabited with tall weedy species, but many areas of the site are so densely impacted by NNG that many native annuals are uncommon or were not observed away from road edges.

4.2.5) Southern Sycamore Riparian Woodland (Ca. Sycamore Series, Sawyer Keeler-Wolfe)

Southern sycamore riparian woodland is dominated by western sycamore (*Platanus racemosa*). On the subject property, western sycamores are present as mostly scattered trees within canyon bottoms growing alongside California black walnut and coast live oak trees. This community was primarily observed at the northwest portion of the site within a low-relief drainage. Although commonly found in the California sycamore series, no mulefat or willow occurred within the sycamore woodland associations within the survey area.

4.2.6) Coast Live Oak Woodland (Coast Live Oak Series, Sawyer Keeler-Wolfe)

This habitat type consists of evergreen woodland dominated by coast live oak (*Quercus agrifolia*), found mostly on north-facing slopes and shaded ravines. A diverse shrub understory is usually present. Coast live oak woodland is mostly present on the southern one-half of the site in association with canyons and low-relief drainages, but mixes on some hillsides with CSS, CSCS and NM vegetation communities. California black walnut woodland, southern sycamore riparian woodland and Eucalyptus woodland also mix with coast live oak trees on portions of the site, especially along the western site boundary. Non-native grasses dominate the understory of most coast live oak trees on the site, but other plants observed included (but were not limited to) poison oak, spiny redberry and mugwort (*Artemisia douglasiana*).

4.2.7) California Walnut Woodland (California Walnut Series, Sawyer Keeler-Wolfe)

California walnut woodland is characterized by the presence of California walnut (*Juglans californica*). On the subject property, California walnut trees are present mostly as open-

canopied individual trees or small stands. California walnut woodland also intergrades with denser closed-canopied coast live oak woodland on portions of the site, especially within canyon drainages. Understory consists mainly of non-native grassland and low-growing annuals and shrubs associated with adjacent coastal sage scrub and/or mixed chaparral. California walnut woodland is typically found at elevations between 500 and 3000 feet AMSL from the south side of the San Gabriel Mountains to the Santa Ana Mountains.

4.2.8) Elderberry Scrub (Mexican Elderberry Series, Sawyer-Keeler Wolfe)

Elderberry Scrub series is characterized by the presence and dominance of Mexican elderberry (*Sambucus mexicana*). On the subject property, in areas of habitat identified as elderberry scrub, Mexican elderberry is the dominant shrub and occurs in association with poison-oak. The understory consists mainly of non-native grassland and low-growing annuals and some shrubs associated with adjacent coastal sage scrub and/or mixed chaparral. Elderberry scrub is found mainly on the southwestern part of the survey area on a western and northwestern facing slope.

4.2.9) Ornamental

Ornamental

Non-native ornamental landscaping is present on portions of the site, mostly in association with an existing and occupied residential structure on the east-central portion of the site, and with an abandoned equestrian center at the west-central portion of the site. Various ornamental trees and shrubs, including gumtree (*Eucalyptus* species), ash (*Fraxinus* species), olive (*Olea europea*), pine (*Pinus* species), Peruvian pepper tree (*Schinus molle*), Palo Verde (*Parkinsonia* species) and Mexican fan palm (*Washingtonia robusta*) are present. Additional ornamental shrubs and trees are present along the southern boundary of the site in association with previous residential land uses in these areas.

Non-Native Eucalyptus Woodland (Eucalyptus Series, Sawyer Keeler-Wolfe)

Eucalyptus trees, native to Australia, are commonly found in southern California, and have been widely utilized as shade trees in the area since the 1850's. On the subject property, a grove of mature *Eucalyptus* trees is present on the central portion of the site just northeast of the former equestrian center. At the southern end of this grove where the canyon narrows, *Eucalyptus* trees mix with other native trees including coast live oak and California black walnut. Although these trees are introduced, they do provide important nesting locations for raptors and other birds in the area. During 2010 surveys of the site, red tail hawk (*Buteo jamaicensis*) were observed nesting at the northern portion of this grove.

4.2.10) Disturbed/Developed

Disturbed/Ruderal Habitat

Disturbed habitat includes areas that contain mostly non-native plant species including ornamentals and ruderal exotics. Some non-native, weedy species have invaded areas along road edges or previously disturbed areas of the site. The most common invasive plants observed include mustards (*Hirschfeldia* and/or *Sisymbrium* species), red-stemmed filaree (*Erodium cicutarium*), tocalote (*Centaurea melitensis*) and non-native grasses. Other plants, including Palmer's pigweed (*Amaranthus palmeri*), annual sunflower (*Helianthus annuus*), milk thistle (*Silybum marianum*), Italian thistle (*Carduus pycnocephalus*), prickly-lettuce (*Lactuca serriola*), sow-thistle (*Sonchus oleraceus*), puncture vine (*Tribulus terrestris*), and horehound (*Marrubium vulgare*) are present. Native plants that are tolerant of disturbed areas on the site include fiddleneck (*Amsinckia menziesii* var. *intermedia*), vinegar weed (*Trichostemma lanceolatum*), doveweed (*Eremocarpus setigerus*), and horseweed (*Conyza canadensis*).

4.3) Sensitive Vegetation Communities

Coastal sage scrub is a widespread habitat within southern California that has been rapidly declining with increased development of the area. Coastal sage scrub is considered a rare or threatened community by local, state and federal agencies because of its limited distribution, decline in the area and because this habitat supports numerous native species including the federally threatened coastal California gnatcatcher, and several sensitive species (i.e. coastal cactus wren, coastal western whiptail, coast horned lizard).

California Walnut Woodland is listed by the CDFG as a rare and threatened community. Woodlands throughout southern California support a wide diversity of species including sensitive species and are typically limited to drainages and/or areas that receive regular water. This habitat is also considered rare or threatened by state, federal and local agencies due to its limited distribution and its overall decline in southern California.

4.4) Special Status Botanical Species

A total of 181 botanical species were observed on the site during the 2010 focused botanical surveys. An additional three (3) species were observed during the 2009 surveys, but were not observed in 2010. More than twenty inches of rainfall was recorded in the San Dimas area of L.A. County by the L.A. County Department of Public Works (www.ladpw.org/wrd/precip/) between October 2009 and June 2010. This substantial amount of rainfall ensures a relatively good blooming period. A list of all observed botanical species is included in Appendix A.

Sensitive botanical species documented by the CNDDDB and those sensitive species included in any of the previous biological reports on the site or the Gordon's Ranch Biological survey on an

adjoining parcel (all those studies listed in Section 4.1.2) as potentially occurring in the area are briefly described and occurrence probability is determined in Table 5 below. Based upon presence or absence of specific native habitats the sensitive species were determined to have a varied potential of occurring in the survey area.

Table 5. Special Status Botanical Species

Special Status Species	Habitat and Distribution	Flower season	Status Designation	Occurrence Probability
PLANTS (n=36)				
<i>Symphytotrichum greatae</i> Greata's aster	Perennial herb. Mesic Canyons, Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, riparian woodland. Between 984-6888 ft. elev.	June-October	Fed: none Calif: S2.3 CNPS: List 1B.3	MODERATE Suitable habitat. Late blooming species Located 1.5 mi. north near Big Dalton Canyon Dam
<i>Astragalus brauntonii</i> Braunton's milk vetch	Scattered in S Cal. Foothills, usually in chaparral. Also coastal scrub, valley and foothill grassland, recent burns or disturbed areas; Ventura, LA, Orange Co.; restricted to calcium carbonate soils. Elev. Range below 2100	Jan - August.	Fed: END Cal: S2.1 CNPS: List 1B.1	LOW-ABSENT No suitable soils. Closest record 5 mi nw
<i>Atriplex serenana</i> var. <i> davidsonii</i> Davidson's saltscale	Correct identification is uncertain; coastal bluff scrub, coastal scrub on alkaline soils; Channel Islands, coastal S Calif., also very uncommon in San Jacinto Val near Lakeview (Riv. Co.).	April-October	Fed: none Calif: S2? CNPS: List 1B.2	ABSENT Site lacks alkali soils. Closest record 6 mi sw.
<i>Berberis nevinii</i> (<i>Mahonia nevinii</i>) Nevin's barberry	Coastal sage scrub, chaparral, oak woodland, riparian scrub on sandy or gravelly soils usually below 2700 ft.; scattered localities in LA, San Bern, Riv, and San Diego Cos.	Mar – June (can ID all year)	Fed: END Ca: 2.2, END CNPS: List 1B.1	LOW Not observed (readily identifiable, all year) Potential habitat. Closest record 6 mi n
<i>Brodiaea filifolia</i> Thread-leaved brodiaea	Grasslands, vernal pools /alkali sink in inland valleys; often on upland heavy clay soils nearer coast; scattered in S Ca. foothills and valleys (LA Co to S Bern. & San Diego Cos.), below ±2500 ft. el.	May - June	Fed: THR Ca: S2.1 END CNPS: List 1B.1	MODERATE Not found (searched for specifically) no similar plant associations as on adjacent site. Potential habitat. Critical habitat.
<i>California macrophyllum</i> Round-leaved filaree	Clay soils, open places in shrubland or grassland, below about 3500 ft. elev.; Central Valley South to N Mexico and east to Utah.	March-May	Fed: none Calif: S2.1 CNPS: List 2	MODERATE Potential habitat. Prefers open areas in hab. Not obs. in focused survey (readily identifiable) No clay soils obs., but small patches possible. Closest record 6 mi north
<i>Calochortus catalinae</i> Catalina mariposa lily	Coastal Cal., Santa Cruz Co. to San Diego Co. and Channel Islands; shrubland, woodland, grassland, often in heavy soil, below about 2300' elevation	Spring	Fed: none Calif: S3.2 CNPS: List 4.2	HIGH Suitable habitat Observed on adjacent site
<i>Calochortus clavatus</i> var. <i> Gracilis</i> Slender mariposa lily	Openings in chaparral, coastal scrub, valley and foothill grassland. 1000 – 3300 ft. elevation. Los Angeles and Ventura Counties. Southern base of San Gabriel Mountains	March - June	Fed: none Calif: S2 CNPS: List 1B.2	LOW Marginal habitat. Prefers open areas in habitat. Much of habitat choked w/ non-natives. Not obs. in focused survey (readily identifiable) Closest record 6 mi north

Special Status Species	Habitat and Distribution	Flower season	Status Designation	Occurrence Probability
<i>Calochortus plummerae</i> Plummer's mariposa lily	Chaparral, coastal scrub, pine forest, valley and foothill grassland, 300 - 5600 ft. el.; widespread but uncommon throughout S Ca. mtns., foothills, and valleys	May - July	Fed: none Calif: S3.2 CNPS: List 1B.2	OCCURS
<i>Calochortus weedii</i> var. <i>intermedius</i> Weed's mariposa lily	Chaparral, coastal sage scrub, valley grassland, sandy or clay soils, often on sandstone outcrops between 950-2800 ft. el.; coastal S and cent. Calif. Cos.	May - July	Fed: none Calif: S2.2 CNPS: List 1B.2	LOW Potential habitat. Not observed in focused survey. Relatively long blooming season and large populations observed on other properties. Prefers open areas in habitat. Much of habitat choked w/ non-natives.
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spineflower	LA, San Bernardino, and Riverside Cos.; sandy places in alluvial washes, scrublands, valley and foothill grasslands," +/- 1000-4000 ft. elev.	April - June	Fed: none Calif: S2 CNPS: List 1B.1	LOW Soil and alluvial hydrology lacking. Non-native choking out many of low-growing annuals
<i>Dodecahema leptocerus</i> Slender-horned spineflower	Open, sandy alluvial benches in valleys and canyons. Shrubland and cismontane woodland; San Fernando Vally, Santa Ana River Valley, W Riverside Co. Range 650 – 2500 ft. El.	April - June	Fed: END Ca: 1.1, END CNPS: List 1B.1	LOW-ABSENT No suitable habitat Closest rec. 9mi se. Very unlikely to occur
<i>Dudleya densiflora</i> San Gabriel Mountains dudleya	Succulent Perennial in chaparral, yellow pine forest and coastal sage scrub found on the granitic, steep rocky slopes/ cliffs of the San Gabriel Mts. 800-2000 ft in el 3 pops in Fish, Roberts, San Gabriel Canyon.	May - June	Fed: none Calif: S1.1 CNPS: List 1B.1	MODERATE Suitable habitat. Closest record 8 mi northeast in San Gabriel River
<i>Dudleya multicaulis</i> Many-stemmed dudleya	Heavy soils, often clay, in grassland or shrubland, SW Calif., below about 2600 ft. elev.	April - July	Fed: none Calif: S2 CNPS: List 1B.2	MODERATE Potential habitat. No clay soils obs., but small patches possible. Occur 1.6 mi sw and n. within the San Dimas Exp. Forest
<i>Dudleya cymosa</i> ssp. <i>crebrifolia</i> San Gabriel River dudleya	Perennial herb found in chaparral, on granitic slopes and flats along the San Gabriel River and in the San Gabriel Mts. between 0 - 1312 feet in elevation.	April - July	Fed: none Calif: S1.2 CNPS: List 1B.2	LOW Limited distribution
<i>Erigeron breweri</i> var. <i>bisanctus</i> Pious daisy	Open, dry slopes and washes, in chaparral and montane forest habitats. Occurs in Angeles National Forest	May - Sept	Fed: none Calif: none CNPS: none	MODERATE Potential habitat. Erigeron sp. observed (foliosus?) Occurs in Big Dalton Canyon 1.5 mi north of the site (exact loc. Unknown)
<i>Fimbristylis thermalis</i> Hot springs fimbristylis	Found in fresh water wetlands, freshwater marsh, Mineralized sands of springs, meadows and alkaline seeps. El. range 360 – 4400ft.	July - Sept	Fed: none Calif: S2.2 CNPS: List 2.2	ABSENT Site lacks suitable soil, alkalinity or hydrology
<i>Galium grande</i> San Gabriel bedstraw	Broadleaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest, elev. of 1400 – 5000ft . From the San Gabriel Mts.	Jan - July	Fed: none Calif: S2.2 CNPS: List 1B.2	MODERATE Suitable habitat, Not recorded in Glendora quad.
<i>Harpagonella palmeri</i> var. <i>palmeri</i> Palmer's grappling-hook	Dry clay soils in chaparral, coastal sage scrub, valley grassland; southwestern CA through Baja Calif, AZ, and Sonora	March - May	Fed: none Calif: S3.2 CNPS: List 4.2	MODERATE Potential habitat No clay soils obs., but small patches possible.

Special Status Species	Habitat and Distribution	Flower season	Status Designation	Occurrence Probability
<i>Helianthus nuttallii</i> ssp. <i>parishii</i> Los Angeles sunflower	Coastal fresh water marshes and swamps below 5500 ft elev. Distributed in SW Calif. PRESUMED EXTINCT. Last seen in 1937.	Aug – Oct	Fed: none Calif: SH CNPS: List 1A	ABSENT Lacks suitable habitat, Not known from this area.
<i>Horkelia cuneata</i> ssp. <i>puberula</i> Mesa horkelia	Perennial herb found in chaparral, cismontane woodland and coastal scrub on sandy or gravelly soils. Elevational range 229 – 2296 feet.	Feb – July (Sept rare)	Fed: none Calif: S2.1 CNPS: List 1B.1	MODERATE Soils are more sandy-loam, but Possible habitat. Record from 1904 1.3 mi sw. exact location unknown.
<i>Imperata brevifolia</i> California satintail	Perennial herb found in wet springs, meadows, streamsides, flood plains in chaparral, coastal scrub, Mojavean desert scrub. San Joaquin Valley, San Gabriel Mts, San Bernardino Mts., Elevational range 0 – 1640ft.	Sept - May	Fed: none Calif: S2.1 CNPS: List 2.1	LOW Limited potential habitat along drainage. 1937 record along West fork of San Dimas River.
<i>Juglans californica</i> var. <i>californica</i> S. California black walnut	Walnut woodland, coastal sage scrub, chaparral, gen. < ±3000 ft. elev.; Ventura, LA, Orange, San Bernardino Cos.	Mar – Aug Can ID all year	Fed: none Calif: S3.2 CNPS: List 4.2	OCCURS
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	Coastal salt marsh, inland saline playas, vernal pools; coastal sites Santa Barb. to Baja Ca, scattered inland sites incl. Kern Co, deserts, and W Riv. Co. 0–4000 ft. el	Feb - June	Fed: none Calif: S2.1 CNPS: List 1B.1	ABSENT Site lacks suitable habitat
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass	Shrublands (chaparral & coastal sage scrub) below about 2900 ft. elev.; Los Angeles Co, inland to Riverside & San Bernardino Cos, and S to Baja Calif	Jan - July	Fed: none Calif: S2.2 CNPS: List 1B.2	MODERATE Suitable habitat. Known to occur in Tanbark Flats, Angeles Nat.Forest
<i>Lilium parryi</i> Lemon lily	Meadows, seeps and streambanks above about 4000-9000ft. elev.; mts. of S Calif. and SE Arizona	July - August	Fed: none Calif: S2.1 CNPS: List 1B.2	ABSENT Site is well below the elevational range
<i>Linanthus concinnus</i> San Gabriel linanthus	Chaparral, lower montane coniferous forest and upper montane coniferous forest in rocky openings El range 5000-7000 ft.	April - July	Fed: none Calif: S2 CNPS: List 1B.2	ABSENT Site is well below the elevational range
<i>Monardella macrantha</i> ssp. <i>hallii</i> Hall's monardella	Montane forests, valley and foothill grassland and mixed chaparral, on slopes and ridges +/-2500-6500 ft. el.; San Bern and San Gabriel Mts., Peninsular Ranges (Riv. and SD Cos.)	June – Oct	Fed: none Calif: S3.3 CNPS: List 1B.3	LOW Site is below the elevational range
<i>Navarretia prostrata</i> Prostrate navarretia	Vernal pools, Alkaline floodplains, meadows and seeps; <700m elev., w San Joaquin Valley, Inner South Coast Ranges, LA Co., Peninsular Rng (Santa Rosa Plateau)	Apr. - July	Fed: none Calif: S2.1? CNPS: List 1B.1	ABSENT Site lacks alkali soils and vernal pools; Closest occurrence 8 mi se, south of Montclair
<i>Oreonana vestita</i> Woolly mountain parsley	Lower montane coniferous forest, Subalpine coniferous forest and upper montane coniferous forest on gravel or talus. Elevational range 5300-11500 ft.	May - Sept	Fed: none Calif: S3.3 CNPS: List 1B.3	ABSENT Site is well below the elevational range
<i>Orobanche valida</i> ssp. <i>valida</i> Rock creek broomrape	Chaparral and Pinyon juniper woodland. In Inyo, LA, San Bernardino and Ventura Counties. Elevational range 4100-6562 ft.		Fed: none Calif: S2 CNPS: List 1B.2	ABSENT Site is well below the elevational range
<i>Parnassia cirrata</i> Fringed grass of parnassus	Uncommon. Found in wet places, lower montane coniferous forest, meadows and seeps and upper montane coniferous forest, mesic soils, streamsides 7000-9850 ft. elev. In the San Gabriel Mountains, San Bern. Mts & Mexico	Aug - Sept	Fed: none Calif: S2.3 CNPS: List 1B.3	ABSENT Site is well below the elevational range and no appropriate habitat

Special Status Species	Habitat and Distribution	Flower season	Status Designation	Occurrence Probability
<i>Phacelia stellaris</i> Brand's phacelia	Dunes, alluvial scrub (sandy benches), about sea level to 1300 ft elev.; Los Angeles, Riverside, San Diego Cos., Baja Calif.	March – June	Fed: FC Calif: S1 CNPS: List 1B.1	LOW-ABSENT Site lacks suitable sandy soils or alluvial scrub
<i>Pseudognaphalium leucocephalum</i> White rabbit-tobacco	Dry, sandy creek bottoms in chaparral, cismontane woodland, coastal scrub, riparian woodland. Elevational range 0 – 6890 ft.	Aug - Nov	Fed: none Calif: S2S3.2 CNPS: List 2.2	LOW No finely sorted sandy soils observ. in drainage species recorded 3.5 mi se in San Dimas Wash. Potential only at the south edge of the site
<i>Senecio aphanactis</i> Rayless ragwort	Chaparral, cismontane woodland, coastal scrub, in alkaline flats below about 1300 ft. elev.; W Calif. (from Solano Co. south) and Baja Calif.	Jan - April	Fed: none Calif: S1.2 CNPS: List 2.2	LOW No alkaline flats. Closest occurrence 4.5 mi. south
<i>Thelypteris puberula</i> var. <i>sonorensis</i> Sonoran maiden fern	Meadows, Seeps /streambanks between ±150 and 1800 ft. el; coastal foothills of Sta Monica, San Gabr, San Bern Mts, desert foothills of San Jacinto Mts; to Az and Baja Ca.	Jan - Sept	Fed: None Calif: S2.2? CNPS: List 2.2	LOW Marginal Habitat, No recorded occurrences in Glendora Quad and no native ferns observed

Plant references: CDFG (1998, 1999, 2010), Hickman (ed., 1993) Munz (1974), Skinner & Pavlik (1994), USFWS (1993, 1996), CNPS 2010, California 2010.

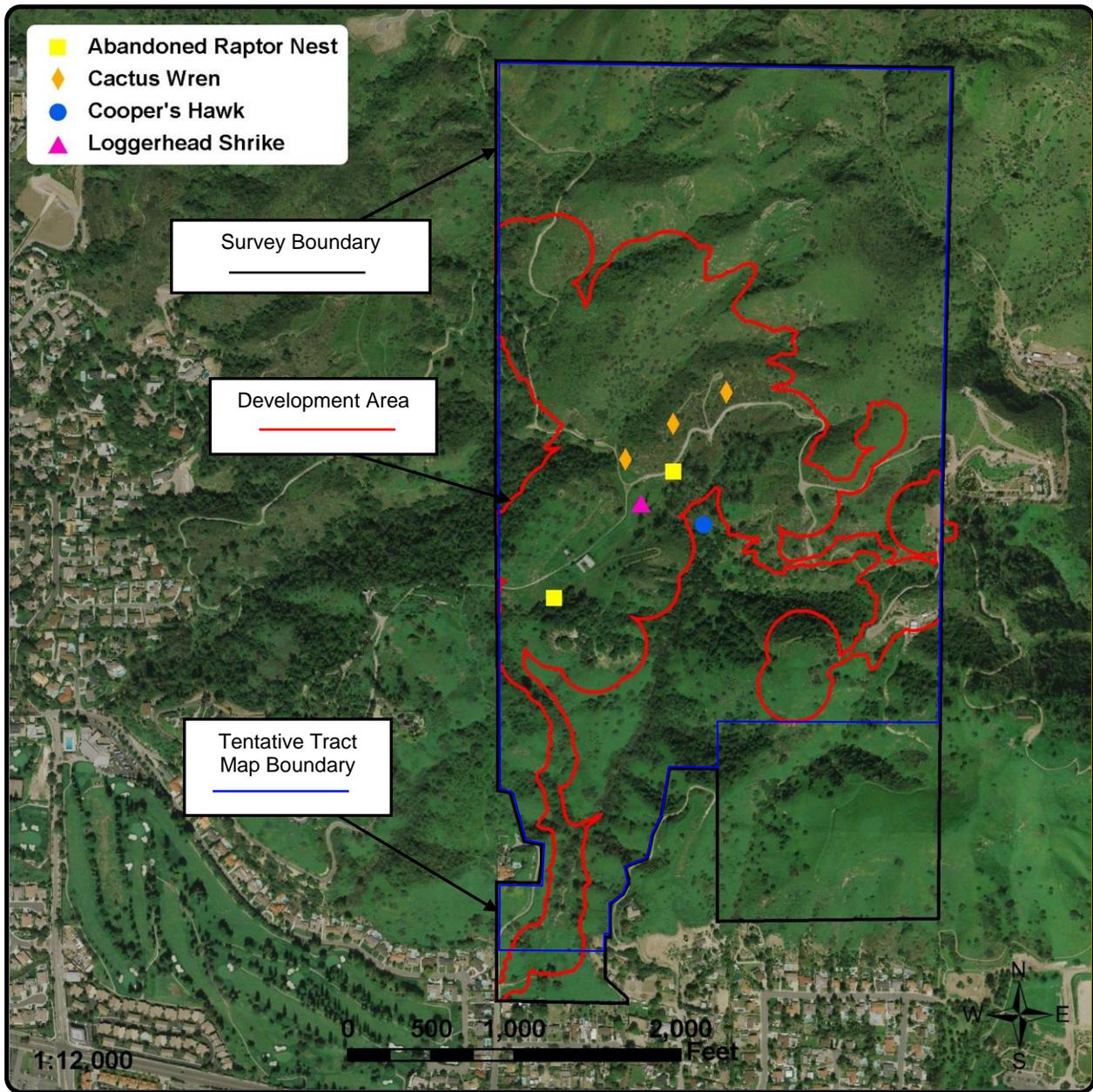
Two of the special status plant species listed above, Plummer's mariposa lily (*Calochortus plummerae*) and southern California black walnut (*Juglans californica* var. *californica*), were observed in the survey area. The California black walnut on-site were numerous and those that are proposed for impacts were mapped as a part of the Mature Tree Survey, Section 4.6, Figure 9. As currently mapped the Plummer's mariposa lilies identified in the survey area are located within the proposed development area. Two individuals were found at the northern location and one was found at the southern (Figure 8). The GPS locations are provided in Appendix A, Table 15.

4.4.1) Endangered and Threatened Botanical Species

Thread-leaved Brodiaea

Thread-leaved brodiaea is typically found in herbaceous plant communities such as grasslands, including nonnative grassland, alkali playa and vernal pools communities (Holland 1986, pp. 34-37, 41, 44), but also grows in open areas in shrub-dominated coastal sage scrub ecosystems (USFWS, 2005). Within these communities, thread-leaved brodiaea occurs in open areas on clay soils, soils with a clay subsurface, or clay lenses within loamy, silty loam, loamy sand, silty deposits with cobbles or alkaline soils, ranging in elevation from 100 feet to 2,500 feet. These soils facilitate the natural process of seed dispersal and germination, cormlet disposition or movement to an appropriate soil depth, and corm persistence through seedling and adult phases of flowering and fruit set (USFWS, 2005).

Critical habitat for the thread-leaved brodiaea (*Brodiaea filifolia*) occurs within the northwestern



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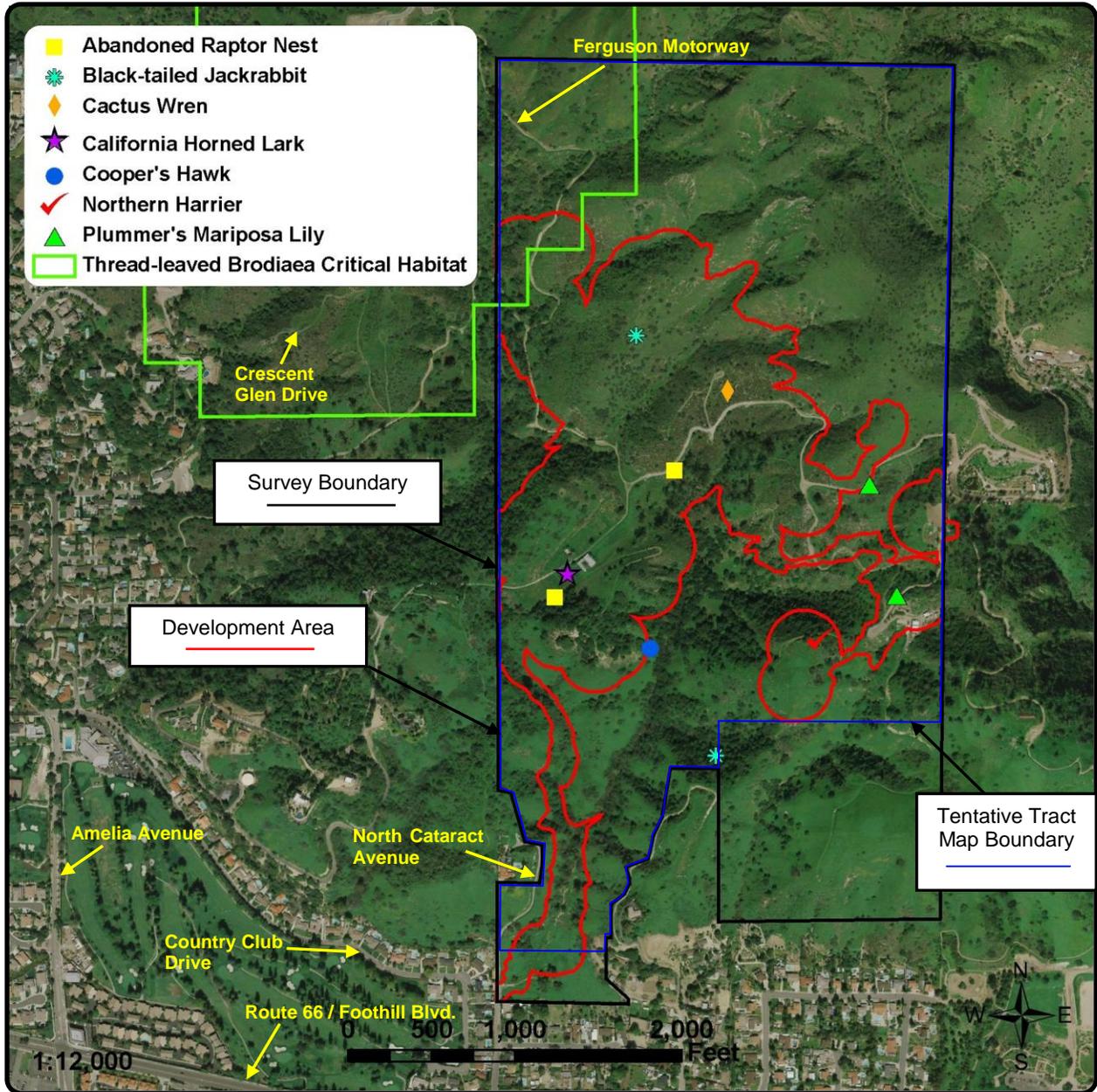
*BIOLOGICAL AND CULTURAL
INVESTIGATIONS AND MONITORING*

STF-09-137
September 2010

Figure 7

2009 Special Status Species
(Photo provided by GlobeExplorer, 2008-03-01)

*TTM 70583, City of San Dimas
County of Los Angeles, California*



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 BIOLOGICAL AND CULTURAL
 INVESTIGATIONS AND MONITORING
 STF-09-137
 September 2010

Figure 8
2010 Special Status Species
 (Photo provided by GlobeXplorer, 2008-03-01)
 City of San Dimas
 County of Los Angeles, California

corner of the survey area and as currently mapped critical habitat occurs within the northwestern most portion of the development area. Critical habitat as currently mapped overlaps an estimated 3.95 acres of the proposed development area. In December 2009 the USFWS proposed revised critical habitat for this species which would exclude the development area.

Thread-leaved brodiaea was observed off-site to the west during a concurrent survey of an adjacent property within coastal sage scrub/chaparral habitat. This off-site population was used as a reference site (and is referred to elsewhere in this document as “the reference site”) confirming the species was in bloom in the immediate area, at a similar elevation and identified a specific microhabitat for the project location. The soils observed, associated with the offsite population, were sandy loam, although the area was likely underlain by clay soils or there was a clay lens present, given other species that typically occur in clay soils were observed in the area. The plant species immediately associated with the offsite populations include Plummer’s mariposa lily, Catalina mariposa lily, blue-eyed grass (*Sisyrinchium bellum*) and blooming stars.

No thread-leaved brodiaea was observed within the San Dimas survey area, including the portions of the site currently designated by the USFWS as critical habitat (USFWS, 2005) or the proposed revised critical habitat for this species (USFWS, 2009).

The Primary Constituent Elements (PCE) of this species as outlined by the USFWS (2002) include clay soils or loamy soils with a clay lens, open areas in grasslands (native and annual) surrounded by CSS or CSS/chaparral habitats (or alkali or vernal habitat that do not occur on the project site), elevation between 100-2500ft. asl., full sun, access to water and air. These elements of habitat for this species are present. However, only two of the plants immediately associated with the thread-leaved brodiaea at the reference site location were observed in the survey area and they were not observed together or in the substantial sized patches (as they occurred at the reference site). No clay soils were observed. Sandy loam occurs on the site and plants supported by clay soils are present, indicating clay lenses likely occur, although not in significant patches as was observed on the reference site.

Braunton’s milk vetch

The survey area is not located within critical habitat for the Braunton’s milk vetch (*Astragalus brauntonii*). The nearest critical habitat coincides with the nearest recorded occurrence of the species and is located approximately 5 miles northwest of the survey area (Calflora, 2010). This species occurs on calcium carbonate soils within chaparral or coastal sage scrub. This species needs natural disturbance such as burn, erosion or flooding for its survival. The density of the vegetative community is usually high near 80% cover, but immediately around the plant is typically bare or less than 10% cover. Braunton’s milk vetch was not observed within the San Dimas survey area (despite two years of surveys over the development area) nor has the

species been observed within the Glendora quadrangle. This species is not expected to be present on the site due to a lack of suitable soils.

Nevin's barberry

The survey area is not located within critical habitat for the Nevin's barberry (*Berberis nevinii*). Critical habitat for this species is located in the Agua Tibia/Vail Lake area of Riverside County. This species occurs in sandy, gravelly habitats in coastal sage scrub and chaparral. This species is readily identifiable year round. The species is known to occur in Los Angeles County, with the nearest recorded occurrence of the species approximately 6 miles east of the site in the Claremont area, in the vicinity of San Antonio Wash. Nevin's barberry was not observed within the San Dimas survey area nor has the species been observed within the Glendora quadrangle. This species is more readily identifiable than many species and it has not been identified within the survey area or within the development area over two survey years. This species had a limited potential to occur in the survey area prior to focused surveys. Following a negative survey the potential this species occurs is very low.

Slender-horned spineflower

The survey area is not located within critical habitat for the Slender-horned spineflower (*Dodecahema leptocerus*). No critical habitat rules for this species have been designated by the USFWS. This species occurs on open sandy alluvial benches in valleys and canyons. It occurs within shrubland and cismontane woodland. Most recorded occurrences are in large open wash areas.

This species is not recorded in the area. The closest recorded location is 9 miles southeast in the City of Upland, but the reference is from a 1905 record and the location is unknown. Other locations are 11 miles west in the Monrovia area (1920, population extirpated) and 11 miles northwest in the San Gabriel River West Fork. The slender-horned spineflower was not observed within the San Dimas survey area in 2009 or 2010, nor has the species been observed within the Glendora quadrangle. This species is not expected to be present on the site due to a lack of sandy soils and alluvial benches.

Sensitive Species or Species of Special Concern

The sensitive botanical species that were determined to have potential habitat within the survey area and a moderate or high potential to occur on-site include Greata's aster (*Symphotrichum greatae*), round-leaved filaree (*California macrophyllum*), Catalina mariposa lily (*Calochortus catalinae*), San Gabriel Mountains dudleya (*Dudleya densiflora*), many-stemmed dudleya (*Dudleya multicaulis*), Pious daisy (*Erigeron breweri* var. *bisanctus*), San Gabriel bedstraw (*Galium grande*), Palmer's grappling-hook (*Harpagonella palmeri* var. *palmeri*), mesa horkelia (*Horkelia cuneata* ssp. *puberula*) and Robinson's pepper-grass (*Lepidium virginicum* var.

robinsonii). None of these species were observed during the focused botanical survey. Lack of observation after a single year botanical survey, even in a year of adequate rainfall, would not, according to the 2009 protocol (USFWS) definitively preclude the presence of a species. Two years of surveys have been conducted over the development area. Impacts on these species would be considered adverse, but not significant, because none of these species is currently listed as threatened or endangered by state and/or federal resource agencies and suitable habitat for these species is common within the region.

It should be noted that the San Dimas Northern Foothills Project Biological Technical Report by Bonterra correctly states that the San Gabriel Mountains dudleya was proposed as a candidate for federal listing. This occurred in 1996 (USFWS) and since then no further action has occurred. Similarly, although the Bonterra report identifies the pious daisy as a species of concern it is no longer identified by the CDFG, USFWS or the California Native Plant Society as a sensitive species. For the purposes of this report impacts to these species would be considered adverse, but not significant.

Four additional botanical species, slender mariposa lily (*Calochortus clavatus* var *gracilis*), rayless ragwort (*Senecio aphanactis*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*) and Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), were included in the initial study request for information. These species were determined to either be absent or have a low potential of occurring based on the absence or low quality of habitat within the survey area, the elevational or geographic range of the species or other specific site condition. Species specific data are outlined in Table 5 above.

4.5) Wildlife Species

A total of 99 wildlife species were observed on the site during the series of surveys conducted in 2010. An additional four (4) species were observed during the 2009 surveys, but were not observed in 2010. A list of all observed wildlife species is included in Appendix A.

Sensitive species observations by Guy Bruyera occurred while conducting general biological, focused botanical or focused coastal California gnatcatcher surveys on the site. Focused surveys were not conducted for any wildlife species other than for the coastal California gnatcatcher.

Sensitive wildlife species documented by the CNDDDB and those sensitive species included in any of the previous biological reports on the site or the Gordon's Ranch Biological survey on an adjoining parcel (all those studies listed in Section 4.1.2) as potentially occurring in the area are briefly described and occurrence probability is determined in Tables 6-10 below. Based upon presence or absence of specific native habitats the sensitive species were determined to have a varied potential of occurring in the survey area.

4.5.1) Fish

Rivers, creeks and drainages of varying inundation can support native fish populations that have adapted to perennial waterways, however no aquatic habitat suitable to support fish species, either common or sensitive, occurred in the survey area. The property was surveyed after a spring period of consistent rainfall and should have shown evidence of water detention and the presence of aquatic habitat if it occurs in the survey area. The Santa Ana sucker (*Catostomus santaanae*), Santa Ana speckled dace (*Rhinichthys osculus*) and arroyo chub (*Gila orcutti*) are not expected to occur in the survey area due to a lack of suitable aquatic habitat.

Table 6. Special Status Fish Species

Special Status Species	HABITAT AND DISTRIBUTION	Status Designation	Occurrence Probability
FISH (3):			
<i>Catostomus santaanae</i> Santa Ana sucker	Silver fish with dark irregular blotches on the dorsal surface. 200m. in length. In small to medium permanent streams. LA and San Gabriel drainage, lower Santa Ana River.	Fed: THR Calif: None NDDB: S1	ABSENT No suitable habitat
<i>Rhinichthys osculus</i> "subspecies 3" Santa Ana speckled dace	Endemic to Santa Ana and San Gabriel Riv. watersheds, historic in Big Tujunga Cyn. Santa Ana Riv populations in lower S.Bernardino Mtn foothills & washes	Fed: None Calif: None NDDB: S1	ABSENT No suitable habitat
<i>Gila orcutti</i> Arroyo chub	Slow –moving or backwater sections of warm/ cool streams with mud or sand substrates. LA, San Gabriel, San Luis Rey, Santa Ana & Santa Margarita Riv and Malibu and San Juan creeks.	Fed: None Calif: None NDDB: S2.1	ABSENT No suitable habitat

4.5.2) Reptiles and Amphibians

One amphibian species, the Pacific chorus frog (*Pseudacris regilla*) and six reptile species, side-blotched lizard (*Uta stansburiana*), western fence lizard (*Sceloporus occidentalis*), alligator Lizard (*Elgaria multicolor*), California whipsnake (*Masticophis lateralis*), gopher snake (*Pituophis catenifer*), and southern pacific rattlesnake (*Crotalus oreganus helleri*) were observed during surveys. Seventeen sensitive reptiles and amphibians were identified as potentially occurring in the survey area. No sensitive species were recorded during the survey effort.

Table 7. Special Status Reptile and Amphibian Species

Special Status Species	Habitat and Distribution	Status Designation	Occurrence Probability
REPTILES AND AMPHIBIANS (17)			
<i>Anniella pulchra pulchra</i> California silvery legless lizard	Various habitats, mainly shrublands, <6000' elevation; Coast Ranges from Bay area to northern Baja Calif., sw Sierra Nevada, parts of the Central Valley, Trans. and Penins. ranges	Fed: None Calif: SSC NDDB: S3	MODERATE Potential habitat museum record for site vicinity
<i>Bufo microscaphus californicus</i> Arroyo toad	Washes and intermittent streams of semi-arid regions, sandy-banked rivers, riparian wdlands, and loose gravel. Southern California to tip of Baja California. Desert popul. along Mojave R.	Fed: END Calif: SSC NDDB: S2S3	ABSENT no suitable habitat margin of range

Special Status Species	Habitat and Distribution	Status Designation	Occurrence Probability
<i>Actinemys marmorata pallida</i> Southwestern pond turtle	Perennial ponds, streams, marshes, irri. ditches; coastal South & cent Ca., NW Baja Ca., below ≈ 4800 ft. el. (few higher el. pops)	Fed: None Calif: SSC NDDB: S3	ABSENT no suitable aquatic habitat
<i>Batrachoseps gabrieli</i> San Gabriel Mountain slender salamander	Lives and lays eggs in moist places on land. Found under large rocks, logs, and bark. A relict species, found only in a few locations in the San Gabriel Mts. and the western end of the San Bernardino Mts. 1,200 - 5,085 ft. elev. Inhabits forested talus slopes, and shaded areas near a stream.	Fed: None Calif: None NDDB: S2	LOW Marginally suitable habitat
<i>Aspidoscelis tigris stejnegeri</i> Coastal western whiptail	Woodlands, shrublands; SW Ca. through much of Baja Ca. , below ±7500 ft. elev.	Fed: None Calif: None NDDB: S2S3	HIGH Suitable habitat present. Recorded on Glendora Quad
<i>Crotalus ruber ruber</i> Northern red-diamond rattlesnake	Desert scrub, thorn scrub, and chaparral habitats below 4,000ft. San Bernardino County south through most of Baja California, Mexico.	Fed: None Calif: SSC NDDB: S2?	LOW potential habitat outside species known range
<i>Diadophis punctatus ssp. modestus</i> San Bernardino ringneck snake	Open relatively rocky areas within valley-foothill locales; mixed chaparral / annual grasslands; western SD and Riv. counties, southwest SB, Vent. and LA counties, northwest Baja Calif.	Fed: None Calif: None NDDB: S2	MODERATE Potentially suitable habitat
<i>Ensatina eschscholtzii klauberi</i> Large-blotched ensatina	Moist deciduous & evergreen forests, oak woodland, chaparral and well shaded canyons. Most common in woody debris on the forest floor. Peninsular ranges of So. Cal. And parts of the San Bern. Mtns. Old sightings from the San Gabriel Mountains have not been confirmed.	Fed: None Calif: SSC NDDB: S2S3	LOW Potential habitat outside species known range
<i>Lampropeltis zonata parvirubra</i> San Bernardino mountain kingsnake	Forests and chaparral with rock outcrops or talus, often riparian, 1200-8100 ft. elev.; San Gabr., San Bern, & San Jacinto Mts	Fed: None Calif: SSC NDDB: S2 ?	MODERATE Potentially suitable habitat
<i>Lichanura trivergata (roseofusca)</i> (Coastal) Rosy boa	Rocky brushlands and desert. Attracted to permanent and intermittent streams. Death Valley, CA., to the tip of Baja California, and coastal southern CA to south-central Arizona.	Fed: None Calif: None NDDB: S3S4	LOW Potential habitat outside species known range
<i>Phrynosoma blainvillii</i> Coast horned lizard	Coastal sage scrub, low elevation chaparral, annual grassland, oak and riparian woodlands, and coniferous forests. SW CA to NW Baja CA, Mex	Fed: None Calif: SSC NDDB: S3S4	HIGH Suitable habitat present Recorded on Glendora Quad
<i>Rana draytonii</i> California red-legged frog	Pools in low-gradient foothill and valley streams (esp. intermittent) to ±4000 ft; only extant S CA pops are in Ventura Co. & Santa Rosa Plateau (Riv. Co.)	Fed: THR Calif: SSC NDDB: S2S3	ABSENT No suitable aquatic habitat present
<i>Rana muscosa</i> Sierra Madre yellow-legged frog	Always encountered within a few feet of water. Tadpoles may require up to 2 years to complete development	Fed: END Ca: SSC NDDB: S1	ABSENT No suitable aquatic habitat present
<i>Salvadora hexalepis virgultea</i> Coast patch-nosed snake	Shrublands, usually with open sand; SantaB county through southwest Calif., to northwest Baja Calif.	Fed: None Ca: SSC NDDB: S2S3	LOW Marginally suitable habitat
<i>Scaphiopus hammondii</i> Western spadefoot toad	Breeds in quiet streams & vernal pools, burrows beneath sand during dry season; W Ca., Cent. Val. To Baja Ca.	Fed: None Ca: SSC NDDB: S3	LOW Marginally suitable habitat
<i>Taricha torosa torosa</i> Coast range newt	Wet forests, oak forest, chaparral and rolling grasslands. This species frequents terrestrial habitats, but breeds in ponds, reservoirs and slow moving streams. Endemic to Ca. Coast range mountains from Mendocino to San Diego Co.	Fed: None Ca: SSC NDDB: S4	LOW Marginally suitable habitat, Occurred on Gordons Ranch Proj. ~2000 ft. nw

Special Status Species	Habitat and Distribution	Status Designation	Occurrence Probability
<i>Thamnophis hammondi</i> Two-striped garter snake	In or near perennial fresh water and adjacent riparian habitat, usu. about pools in streams; SW Ca & NW Baja Ca	Fed: None Calif: SSC NDDB: S2	ABSENT No suitable aquatic habitat present

General references: *Natural Diversity Data Base Special Animals 2010*.
 Status designations and occurrence probabilities are defined in the Key Appendix A.

Endangered and Threatened Reptile and Amphibian Species

California Red-legged Frog

The California red-legged frog (CRLF) is a federal-listed threatened species and a California species of special concern. The CRLF has become extremely rare in Southern California and few records exist for extant populations in the region. The historic range extends through Pacific slope drainages from the vicinity of Redding (Shasta County) inland, at least to Point Reyes (Marin County), California. The range extends (coastally) southward to the Santo Domingo River drainage in Baja California, Mexico (Linsdale 1932 in Jennings and Hayes 1994). Nearly all of the known CRLF populations have been documented below 1,050 meters (3,500 feet) (USFWS 2002). Its known elevational range extends from near sea level to around 1500 meters (Hayes and Jennings 1994). Relative to the subject study area, the nearest known drainage that supports this taxon includes East Las Virgenes Creek (Ventura County) in the Simi Hills, adjacent to the Santa Monica Mountains Recreational Area (USFWS 2002). This occupied location is estimated at ±9 air miles from the study area.

CRLF use a variety of areas, including various aquatic, riparian, and upland habitats. Jennings and Hayes (1994) describe the preferred habitat of the CRLF as dense, shrubby, riparian vegetation most often associated with deep 0.7 meter (±2 feet), still, or slow moving water. However, frogs have been observed in shallow sections of streams that are not cloaked in riparian vegetation. Most observations are associated with depths greater than 25 cm (10 inches). CRLF also frequently breed in artificial impoundments such as stock ponds (USFWS 2002). Riparian vegetation that structurally appears to be most suitable for this species is described as arroyo willow (*Salix lasiolepis*), cattails (*Typha* sp.), and bulrushes (*Scirpus* sp.) providing shade over a large portion of the water's surface. The CRLF can occur in both ephemeral and permanent streams or ponds. However, populations of this species cannot be maintained in areas in which all surface water disappears. Water quality and water flow regimes are important to maintain this species. CRLF appear to be absent when temperatures exceed 22 degrees Celsius (70°F), particularly when the temperature throughout a pool was this high and there are no cool, deep portions (USFWS 2002). Overall, populations of CRLF are most likely to persist where multiple breeding areas are embedded within a matrix of habitats used for dispersal (USFWS 2002).

CRLF breed from November through April. Males appear at breeding sites from 2 to 4 weeks before females (Storer 1925 in USFWS 2002). Typically, most adult frogs lay their eggs in March. Eggs require approximately 20-22 days to develop into tadpoles, and tadpoles require 11 to 20 weeks to develop into terrestrial frogs (Bobzien et. al. 2000, Storer 1925, Wright and Wright 1949 in USFWS 2002).

CRLF Habitat Assessment

A habitat assessment was conducted for the CRLF, but in doing so also addressed habitat for sensitive amphibian species on the site, particularly the federally endangered arroyo toad and Sierra Madre yellow-legged frog. The assessment was conducted according to the USFWS Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog (2005) due to the fact that the property is documented as within the range of this species according to the CDFG BIOS, although the USFWS Recovery Plan (2002) indicates the site lies outside the current range of the species.

No direct observations (egg masses, tadpoles, juveniles) or vocalizations (adults) of CRLF or other sensitive amphibians were recorded during the habitat assessment conducted in April 2010. No suitable aquatic habitat to support CRLF was recorded during the April 2010 habitat assessment despite a year with consistent rains in March and April 2010. The site is not expected to support those amphibians that are more reliant/dependent on aquatic environments and use aquatic habitat in more life stages [i.e., Pacific tree frog uses aquatic habitat only during breeding where *Rana* species (i.e., CRLF) use aquatic habitat as tadpoles and adults].

No ponds or perennial waters were observed in the survey area. Only ephemeral waters are present, and they do not support pools or sustain water for long periods of time following rainfall events. Portions of shaded drainages were damp in several places, and several low spots were recorded that indicated that some short-term ponding does occur as indicated by the presence of riparian-associated plants and mudcracks. However, none of the areas surveyed contained surface water at the time of the survey effort in April 2010. No emergent vegetation was recorded.

Multiple drainage courses (non-wetland waters) bisect the site. The site generally drains to the south to the highly urbanized San Dimas Wash. The site contains four canyons (Shay, Shuler, Sycamore, and Wildwood); however, only Shuler Canyon and Wildwood Canyon are within areas proposed for direct impacts. None of these canyon areas support aquatic habitat suitable for CRLF or other anuran species dependent on permanent to near permanent surface water (e.g., mountain yellow-legged frog). Water does not pond or remain on the surface long enough on the site (4-5 months per Storer 1925 in USDA 2005) for CRLF larvae to metamorphose. Although California red-legged frogs are found in ephemeral streams and ponds, populations cannot be maintained where all surface water disappears (Jennings and Hayes 1994).

Soil types are not consistent with an alkali playa or vernal pool complex and pools or depressions characteristic of vernal habitat were not noted as present on the subject property. As such, limited habitat for vernal-pool associated amphibians is present (e.g., spadefoot toad).

Biological Characteristics of Surrounding Area for CRLF Habitat

The area immediately surrounding the survey area is characterized by sparse development and large expanses of undeveloped land, similar in composition to the subject study area. Based solely on aerial photography, an artificial pond is present (associated with adjacent development) approximately 300 feet east of the study area. The pond was not investigated due to private property issues, so it is not clear if this pond is suitable to support sensitive aquatic species.

Arroyo Toad and Sierra Madre Yellow-legged Frog

During the assessment for the CRLF an integral part of the field survey included evaluation of aquatic features. The data collected on the presence and/or absence of aquatic features and the habitat in and around the drainages on-site was used to evaluate the potential for the arroyo toad (*Bufo microscaphus californicus*) or Sierra Madre yellow-legged frog (*Rana muscosa*) to occur as well.

No aquatic features were observed in the survey area despite consistent rain in the spring of 2010 and rainfall events within days of site visits. Neither species was observed during the field visits. The site is not expected to support those amphibians and reptiles that are more reliant/dependent on aquatic environments and use aquatic habitat in more life stages [i.e., Pacific tree frog uses aquatic habitat only during breeding where *Rana* species (i.e., CRLF) use aquatic habitat as tadpoles and adults] due to the lack of aquatic features such as pools within drainages. With the lack of aquatic habitat, it was determined that no suitable habitat for the federally endangered arroyo toad or Sierra Madre yellow-legged frog occurs in the survey area. The survey area is not located within critical habitat for either the arroyo toad or Sierra Madre yellow-legged frog.

Other Sensitive Reptiles and Amphibians

The sensitive reptiles and amphibians that were determined to have potential habitat within the survey area and a moderate or high potential to occur in the survey area though not observed, include California silvery legless lizard (*Anniella pulchra pulchra*), coastal western whiptail (*Aspidoscelis tigris stejnegeri*), San Bernardino ringneck snake (*Diadophis punctatus ssp. modestus*), San Bernardino mountain kingsnake (*Lampropeltis zonata parvirubra*) and coast horned lizard (*Phrynosoma blainvillii*).

Three additional reptile species, northern red diamond rattlesnake (*Crotalus ruber ruber*), coastal rosy boa (*Lichanura trivergata roseofusca*) and two-striped garter snake (*Thamnophis hammondi*), were included in the initial study request for information. These species were determined to either be absent or have a low potential of occurring based on the absence or low quality of habitat within the survey area, the elevational or geographic range of the species or other specific site condition. Species specific data are outlined in Table 7 above.

4.5.3) Birds

A total of 61 avian species were observed on the site during the 2010 surveys. An additional three (3) species were observed during the 2009 surveys, but were not observed in 2010. A list of all observed species is included in Appendix A.

Four of the special status avian species outlined below as potentially occurring in the survey area were observed during the project surveys. These species included the Cooper's hawk (*Accipiter cooperi*), coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), northern harrier (*Circus cyaneus*) and the California horned lark (*Eremophila alpestris actia*). One species [loggerhead shrike (*Lanius ludovicianus*)] was observed in 2009, but not in 2010.

Table 8. Special Status Bird Species

Special Status Species	Habitat and Distribution	Status Designation	Occurrence Probability
BIRDS (31):			
<i>Accipiter cooperii</i> Cooper's hawk	Cismontane woodland, riparian forest, riparian woodland (including oak woodland, walnut woodland and gum trees), upper montane coniferous forest. Forages in open areas over scrublands; California, Mexico, Central America.	Fed: None Calif: None NDDB: S3 (breeding)	Nesting: HIGH Foraging: OBSERVED
<i>Accipiter striatus</i> Sharp-shinned hawk	Conifer-covered slopes near mixed stands of conifer and deciduous trees. Also use scrub habitat in winter. In So. CA. most common in coastal lowlands and desert areas. Common winter resident in so. CA. Breeds in high elevation forest or riparian. Likely only breeding in Northern CA.	Fed: None Calif: None NDDB: S3 (breeding)	Nesting:LOW- ABSENT Foraging:LOW- MODERATE Not observed over 2 years, but may occasionally forage
<i>Agelaius tricolor</i> Tricolored blackbird (nesting colony)	Breeds colonially in freshwater marshes, nomadic among marshes and fields in winter; almost completely endemic to Calif.	Fed: None Calif: SSC NDDB: S2	ABSENT No suitable habitat
<i>Aimophila ruficeps canescens</i> Southern California Rufous-crowned sparrow	Sparse, mixed chaparral, scrub, rocky, brushy slopes. Central California to Baja California.	Fed: None Calif: None NDDB: S2S3	MODERATE suitable habitat
<i>Ammodramus savannarum</i> Grasshopper sparrow	Open grasslands with scattered shrubs, often an ecotone of grassland and sage scrub with an absence of trees. SW Canada to South Am. Migrates south, including so. CA in winter. Little known of winter range because of secretive habitats	Fed: None Calif: SSC NDDB: S2	MODERATE suitable habitat
<i>Amphispiza belli belli</i> Bell's sage sparrow	Sage scrub and chaparral communities. Central Washington southward to Baja California, Mexico.	Fed: None Calif: None NDDB: S2?	MODERATE suitable habitat

Special Status Species	Habitat and Distribution	Status Designation	Occurrence Probability
<i>Aquila chrysaetos</i> Golden eagle	Nests on rock ledge of cliff or in large tree (e.g., oak or eucalyptus in California). Pair may have several alternate nests; may use same nest in consecutive years or shift to alternate nest used in different years. Forages in grassland and open habitats in rolling foothills, mountainous areas, sage-juniper flats, and deserts. Western North America. This species is very sensitive to disturbance.	Fed: None Calif: None NDDB: S3	Nesting: MODERATE Foraging: MODERATE Not observed over 2 years, but habitat suitable
<i>Asio otus</i> Long-eared owl (nesting)	Breeds & roosts in riparian forests or other dense forest; forages at night over open land; ever more rare breeding in S Ca.; occurs N Amer. / Eurasia	Fed: None Calif: SSC NDDB: S3	Breeding: LOW Foraging: LOW
<i>Athene cunicularia hypugea</i> Burrowing owl	Open dry grassland, desert or shrubland areas. Small mammal burrows are an essential element of burrowing owl habitat. Although they can occasionally occupy man made structures. Southwestern Canada south to Tierra del Fuego.	Fed: None Calif: SSC NDDB: S2	ABSENT No suitable burrows observed
<i>Buteo swainsoni</i> Swainson's Hawk (nesting)	Grassland/agricultural; large trees for nesting, desert scrub w Joshua Tree & freemont cotton-wood overstory, near streams and open fields. Breeds overwhelmingly in Great Basin and Central Valley of California.	Fed: None Calif: THR NDDB: S2	Nesting: LOW- ABSENT Foraging: LOW Not observed over 2 years
<i>Buteo regalis</i> Ferruginous hawk	Foraging in agricultural fields, grasslands and desert scrub from low perches. Winter migratory bird to southern California. Likely only breeds in northern California.	Fed: None Calif: None NDDB: S3S4	Nesting: LOW- ABSENT Foraging: LOW- MODERATE Not observed over 2 years, but may occasionally forage
<i>Campytorhynchus bruneicapillus couesi</i> Coastal cactus wren	Coastal sage scrub with cactus patches; southern Calif. and northwest Baja Calif.	Fed: None Calif: SSC NDDB: S3	OCCURS
<i>Circus cyaneus</i> Northern harrier (nesting)	Coastal and river marshes, wet meadows, agri. lands and shrubby areas. Hunts in the open nests on the ground. Throughout North America, winter migratory birds to southern Ca.	Fed: None Calif: SSC NDDB: S3	Nesting: LOW Foraging: OBSERVED Habitat here is not typical
<i>Coccyzus americanus occidentalis</i> Western yellow-billed cuckoo	Inhabits extensive, relatively broad, well-shaded riparian forests. Declined to only a handful of tiny populations in California. Historically it occurred in most of the United States (excluding the northwestern states), and into Baja California and northern Mexico.	Fed: Candidate Calif: END NDDB: S1	LOW Marginal Habitat. Closest record 9 mi s (1931), current record 18 mi s. Prado Basin
<i>Cypseloides niger</i> Black swift	mtn regions of central and sw coastal Ca. require waterfalls for nesting; typically falls are perm. or intermit. in the breeding season (June to Sept). Nesting sites encircled by coniferous forests, often mixed conifer or spruce-fir forests, may include mountain shrub, aspen, or alpine components. streams are typic. mountain riparian hab.	Fed: None Calif: SSC NDDB: S2	ABSENT No suitable habitat. Closest occurrence .8 mi ne in the northern end of San Antonio Canyon
<i>Dendroica petechia brewsteri</i> Yellow Warbler	Riparian, including willow, cottonwood, sycamore Alders and aspen for nesting and foraging, also conifer forest.	Fed: None Calif: SSC NDDB: S2	LOW-MODERATE Can occur in woodlands, but tend toward denser riparian understory.

Special Status Species	Habitat and Distribution	Status Designation	Occurrence Probability
<i>Elanus leucurus</i> White-tailed kite (nesting)	Breeds in woodlands and riparian forests or near marshes at the edge of open terrain/foraging areas such as savanna, partially cleared lands and cultivated fields, mostly in lowland situations. Pacific Coast (Calif, northern Baja, Oregon), other scattered localities	Fed: None Calif: None NDDB: S3	Nesting: LOW-MODERATE Foraging: MODERATE Not observed over 2 years, no marsh or wetland, but potential open woodland habitat
<i>Empidonax traillii extimus</i> Southwestern willow flycatcher	Rare and local is southern Calif.; breeds in extensive thickets of willow riparian forests; southwest US and northern Baja Calif.	Fed: END Calif: END NDDB: S1	LOW-ABSENT No suitable riparian thickets or regular water source. Closest record 18 mi s at the Prado Dam
<i>Eremophila alpestris actia</i> California horned lark	Short-grass prairie, "bald" hills, mtn meadows, open coastal plains, fallow fields and alkali flats. W/i coastal Sonoma Co. to San Diego Co., San Joaquin Valley and east to foothills	Fed: None Calif: None NDDB: S3	OCCURS
<i>Falco columbarius</i> Merlin	Woodlands, grasslands, agricultural fields, and areas around livestock feed lots. Winter migratory bird to southern California.	Fed: None Calif: None NDDB: S3	Nesting:LOW Foraging: LOW Not observed over 2 years
<i>Falco mexicanus</i> Prairie falcon (nesting)	Nests on high cliffs, primarily in desert and semi-desert areas with little disturbance. forages primarily over open lands; occurs throughout arid western US and Mexico. Breeding in so. California is significantly reduced.	Fed: None Calif: None NDDB: S3	Nesting: LOW-ABSENT Foraging MODERATE Nesting habitat not present, but may occas. Utilize site.
<i>Falco peregrinus anatum</i> American Peregrine falcon (nesting)	Found in a large variety of open habitats, but prefers accessible open water. Breeds mostly in woodland, forest and coastal habitats. In CA primarily in coastal estuaries and inland oases. Nests in cliffs along mnt valleys and river gorges usu. < 9500 ft. elev.	Fed: Delisted Calif: END NDDB: S2	LOW No accessible open water adjacent to habitat.
<i>Haliaeetus leucocephalus</i> Bald eagle	Breed in large trees, usually near major rivers or lakes; winters more widely; wide but scattered distribution in N America; esp. coastal regions	Fed: Delisted Calif: END NDDB: S2	LOW No suitable large bodies of water. Closest record Big Bear, San Bern. May occasionally forage.
<i>Icteria virens</i> Yellow-breasted chat	Summer resident, inhabits riparian thickets of willow near watercourses, low dense riparian willow.	Fed: None Calif: SSC NDDB: S3	LOW-ABSENT No suitable riparian thickets or regular water source.
<i>Ixobrychus exilis hesperis</i> Western least bittern	Freshwater and brackish marshes with tall, dense emergent vegetation and clumps of woody plants over deep water (Gibbs et. al 1992) Summer resident in So. CA Wide spread in the US, Canada and Mex. Migrates So. in winter.	Fed: None Calif: SSC NDDB: S1	ABSENT No suitable habitat
<i>Lanius ludovicianus</i> Loggerhead shrike (nesting)	Open areas where small trees, shrubs, and fences can provide suitable perches. Nests in small trees and large shrubs. Throughout much of North America.	Fed: None Calif: SSC NDDB: S4	Nesting: HIGH Foraging: OBSERVED 2009

Special Status Species	Habitat and Distribution	Status Designation	Occurrence Probability
<i>Poliioptila californica</i> California gnatcatcher	Sage scrub comms. also chaparral, grasslands & riparian comms adjacent to or mixed w/ sage scrub. So Ventura Co to LA, Orange, Riv., San Bern., San D. Cos into Baja Ca, Mexico.	Fed: THR Calif: SSC NDDB: S2	LOW-ABSENT Focused surveys negative for 2 years, above typical elev. Range. Obs. in 2000 on adjacent parcel
<i>Piranga rubra</i> Summer tanager (nesting)	Breeds in forests and woodlands, southern half of US; northern Mex; winters in southern Mexico to S.	Fed: None Calif: SSC NDDB: S2	MODERATE
<i>Riparia riparia</i> Bank swallow (nesting)	Localized along rivers, lakes and ocean coasts. Riparian species. Nest in colonies in earthen banks and bluffs and sand and gravel pits. Once locally abundant now considered absent as a breeding bird in So. California	Fed: None Calif: THR NDDB: S2S3	ABSENT No suitable habitat
<i>Strix occidentalis occidentalis</i> California spotted owl	In so. CA. Montane hardwood and conifer forests at mid-high el. Coast oak woodland, valley fthill riparian at lower el. Less common pinyon juniper woods. Breeds/roosts in forests woods with large old trees and snags, dense canopies, multiple canopy layers. Spread through the So. Cascade Range of No.CA south along the W slope of the Sierra Nevada and in Mts. of central and so CA nearly to the Mex border.	Fed: None Calif: SSC NDDB: S3	LOW Marginal habitat Territories occur in Big Dalton and San Dimas Canyon W. Fork
<i>Vireo belii pusillus</i> Least Bell's vireo	Found in riparian woodlands, bottomlands, and mesquite. Ranges from northern Mex and Baja Ca, into so Ca, and the so. mid-western US	Fed: END Calif: END NDDB: S2	LOW-ABSENT No suitable riparian thickets or regular water source. Closest record 5.5 mi in San Gabriel River

General references: *Natural Diversity Data Base Special Animals 2010*.
 Status designations and occurrence probabilities are defined in the Key Appendix A.

Endangered and Threatened Avian Species

Coastal California Gnatcatcher

The California gnatcatcher (CAGN) is a small songbird inhabiting scrubland communities in southwestern California to northwestern Baja California, Mexico. The CAGN was originally considered a coastal population of the black-tailed gnatcatcher (*Poliioptila melaneura californica*). Notable for its odd vocalizations, localized distribution, and co-occurrence with “inland sage scrub,” the coastal subspecies of the black-tailed gnatcatcher was judged by environmental planners in the late 1970s to be sensitive because of its small range and vulnerability to habitat conversion (Western Birds by Rotenberry and Scott 1998). In the late 1980s coastal populations of the black-tailed gnatcatcher were elevated to the level of species.

The CAGN was listed as federally threatened in March 1993. The survey area does not fall within USFWS designated critical habitat for this species. The vocalizations of this species are very distinct, with a series of kitten-like mew notes. This species is often associated with a coastal sage scrub (CSS) or coastal sage chaparral scrub (CSCS) vegetation communities consisting of typical shrubs such as California sagebrush, California buckwheat, laurel sumac, toyon (*Heteromeles arbutifolia*), and other common sage scrub and coastal sage chaparral

scrub species. Occasionally CAGN is observed within chamise-dominant areas, especially on the edges of more suitable sage scrub habitat.

Numerous historical and recent observations for CAGN exist in undisturbed sage scrub habitats throughout southern California. Although most observations occur at elevations below 800 feet AMSL, Atwood and Bolsinger (1992) found 84% of CAGN were observed within habitat below 750 feet in elevation.

Focused Survey Results

No California gnatcatchers (CAGN) were observed during this study or the 2009 survey of the development area and the survey areas (75± acres) were well above the average occupied habitat range of <750 feet AMSL (Atwood /Bolsinger; 1992). Suitable habitat does not occur within the lower elevational areas of the site. Though CAGN have been known to be present above 750 feet AMSL, based on development area elevation and the negative findings of the study, it can be reasonably concluded that CAGN are not presently occupying the development area.

Habitat of marginally suitable quality is present on a portion of the site through the center of the site where canyon and ridgeline areas are inhabited by typical CSS and CSCS shrubs, including California sagebrush, white sage, and California buckwheat. Very little of the CSS in the survey area, approximately 10 acres, would be considered good habitat, although this is still above the typical elevational range of the species. Much of the potential habitat on the site was considered poor as it has a high percentage of non-native grassland understory. Other areas are an intergrade with mixed chaparral that can provide potential habitat, but suitability is very dependant upon the balance between the two habitats. Portions of the site were eliminated from the survey because they are not suitable for CAGN due to plant composition, density, and to a lesser degree, steep terrain/elevational change.

It is possible that the identification of a CAGN in the vicinity in 2000 (CDFG, 2010) was the result of environmental stressors. The report of this observation does not give an exact location, but shows a polygon where the bird was observed. This observation occurred approximately 1300 feet west of the current survey area, west of Wildwood Canyon at an elevation between approximately 1180 and 1280 feet AMSL.

Based on the elevation of the current survey area and the lack of observations over two years of surveys it was determined that this species does not currently occupy the site, nor is it expected to nest and reproduce on the site in the near future.

Least Bell's Vireo

The LBV was once widespread throughout the Central Valley and other low elevation river valleys of California. Historically, the LBV's breeding range extended from the interior of northern California to northwestern Baja California. The vireo typically prefers riparian areas dominated by willows (*Salix* sp.) of mixed age composition. These areas frequently include other trees such as cottonwood (*Populus fremontii*) and California sycamore (*Platanus racemosa*), with a dense understory of young willows, mulefat (*Baccharis salicifolia*), California primrose (*Rosa californica*), and a variety of other shrubby species. The least Bell's vireo (LBV) is listed as an endangered species by both the USFWS and CDFG. The survey area is not located within critical habitat for this species.

While there is some riparian woodland habitat present in the survey area, it is dominated mainly by oaks or sycamore and does not have a well-developed understory that makes up the willow/riparian thicket these species prefer. The project is located in the northernmost portion of the current range of this species. The nearest documented vireo occurrences are in the San Gabriel River, approximately 5.5 miles to the west of the site. The least Bell's vireo was not observed during surveys of the site, nor is it expected to occur. The probability this species occurs within the survey area is very low.

Southwestern Willow Flycatcher

The SWF is a small insectivorous passerine that migrates in the spring from South America, Mexico, and Central America to breed in the southwestern desert riparian habitats of California, Arizona, New Mexico, and Texas. The SWF occurs in riparian woodland habitat that is characterized by a dense growth of willows, mulefat, arrowweed (*Pluchea* sp.), buttonbush (*Cephalanthus* sp.), and tamarisk (*Tamarix* sp.) These areas frequently include other trees such as cottonwood and California sycamore.

In addition to utilizing willow riparian woodland, the SWF also nests in coast live oak woodland on the upper San Luis Rey River, San Diego County, California; in dense stands of tamarisk on the lower Colorado River, Imperial and Riverside Counties, California; and in stands of mixed willow and white alder (*Alnus rhombifolia*) on Mill Creek in San Bernardino County, California. Surface water or saturated soils are usually present in or adjacent to nesting thickets.

The southwestern willow flycatcher (SWF) is listed as an endangered species by the USFWS. The CDFG has listed the willow flycatcher (*E. traillii*) as an endangered species; thus, the entire species (not just the *E.t. extimus* subspecies) is protected under the California Endangered Species Act. The survey area is not located within critical habitat for this species.

Similar to the least Bell's vireo, although there is some riparian woodland habitat present in the survey area, it is dominated mainly by oaks or sycamore, does not have the complex, well developed under story that makes up the willow/riparian thicket these species prefer. The nearest documented SWF occurrences are in the Prado Basin, approximately 18-miles to the southeast. The southwestern willow flycatcher was not observed during surveys of the site, nor is it expected to occur. The probability this species occurs within the survey area is very low.

Other Threatened and Endangered Species

Four other species are state listed as endangered or threatened. The bald eagle (*Haliaeetus leucocephalus*), American peregrine falcon (*Falco peregrinus anatum*) (nesting), Swainson's hawk (*Buteo swainsoni*) (nesting) and bank swallow (*Riparia riparia*) (nesting). The bald eagle and peregrine falcon are most commonly associated with bodies of water, lakes, large ponds, rivers, etc. No suitable bodies of water occur on the site or in the immediate vicinity. Although the species are not expected to occur, it is possible these species could fly over or occasionally forage on the property. Data on the Swainson's hawk indicate that the overwhelming majority of this species breeds in the Great Basin and Central Valley of California. The habitat does have large trees for nesting, but it is very unlikely based on other habitat criteria, (i.e. grassland/agricultural, desert scrub w Joshua Tree & freemont cotton-wood overstory, near streams and open fields) that this species nests in the survey area. Finally, no habitat for nesting colonies of bank swallows was observed, no evidence of previous occupation was found nor was the species observed. These species are not expected to occur on the site.

Raptor Nesting

Trees suitable for raptor nesting are present within the woodland habitats in the survey area. Two (2) abandoned potential raptor nest sites were observed on the site during the 2009 study. The northern most nest was active in 2010 with a breeding pair of red tailed hawks (*Buteo jamaicensis*). The second abandoned nest was still present in 2010. Many of the trees within the survey area that qualify as Mature and Significant Trees (Section 5.3) could be utilized as additional potential nesting locations for raptors. This includes moderately sized *Eucalyptus* trees, especially within a patch of trees located just north of the former Equestrian Center. Impacts to the trees, the number and type of tree, within the development area are assessed in the Mature Tree Section (5.3). Raptor species observed on the site include red-tail hawk, northern harrier, and Cooper's hawk. Other sensitive raptors that have the potential of nesting in the survey area include, golden eagle (*Aquila chrysaetos*), white-tailed kite (*Elanus leucurus*) and loggerhead shrike. The golden eagle and white-tailed kite are also discussed below under "Other Sensitive Birds."

The burrowing owl (*Athene cunicularis*) is a ground dwelling owl found in open dry grassland, desert, or shrubland areas and in uncultivated agricultural areas, rangelands, and other open

areas with low-growing vegetation. Burrows are an essential element of burrowing owl habitat. Although BUOW is capable of excavating its own burrows in soft soils they typically inhabit abandoned burrows of small burrowing mammals and occasionally occupy man-made structures such as cement culverts, debris piles and other artificial burrows. The BUOW is protected under the Migratory Bird Treaty Act of 1918 and is a special species of concern to California. No burrowing owl, occupied burrows or burrowing owl sign were observed during the 2009 or 2010 surveys conducted on the site. Based on the lack of observed suitable burrows, the burrowing owl is not expected to occur, but this species would be addressed in the mitigation and minimization measures for raptors (Section 6.4).

Raptors that may forage on the site, but are not likely to nest include the sharp-shinned hawk (*Accipiter striatus*), ferruginous hawk (*Buteo regalis*) and prairie falcon (*Falco mexicanus*).

Other Sensitive Birds

The sensitive birds that were determined to have potential habitat within the survey area and a moderate or high potential to occur on-site include the southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), grasshopper sparrow (*Ammodramus savannarum*), Bell's sage sparrow (*Amphispiza belli belli*), coastal cactus wren (*Campytorhynchus bruneicapillus couesi*), yellow warbler (*Dendroica petechia brewsteri*) and summer tanager (*Piranga rubra*). Impacts on these species would be considered adverse, but not significant, because none of these species is currently listed as threatened or endangered by state and/or federal resource agencies and suitable habitat for these species is common within the region.

In addition to being regulated under the Migratory Bird Treaty Act, the golden eagle and white-tailed kite are CDFG fully protected species. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock. Nesting habitat for these species occurs within the open woodlands of the property, mainly in oak and eucalyptus. The location of potential tree nesting locations that will be impacted by the project development is shown in Figure 9.

The potential for nesting habitat for the white-tailed kite is less likely as there is no wetland or marsh habitat associated with the woodlands (or elsewhere) within the survey area. Impacts on these species would be considered significant.

4.5.4) Mammals

A total of six (6) mammal species were observed on the site during the 2010 surveys. One (1) additional species was observed during the 2009 surveys, but not in 2010. A list of all observed species is included in Appendix A.

None of the sensitive species identified as potentially occurring in the project vicinity are state or federally listed as endangered or threatened. One of the special status mammal species outlined below as potentially occurring in the survey area, San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), was observed in the survey area.

Table 9. Special Status Mammal Species

Special Status Species	Habitat and Distribution	Status Designation	Occurrence Probability
MAMMALS (11):			
<i>Antrozous pallidus</i> Pallid bat	Rock outcrops of shrublands, below about 6000' elevation; in Calif. (excludes high mountains), southwest North America to interior Oregon and Washington; hibernates in winter	Fed: none Calif: SSC NDDDB: S3	Nesting: LOW Foraging: MODERATE Potential foraging habitat. Early record in Glendora, exact loc. unknown
<i>Chaetodipus californicus femoralis</i> Dulzura pocket mouse	Usually along the border of grass-chaparral edges, also along coastal sage, chaparral and grassland up to 2600 ft. in elevation in southern California.	Fed: none Calif: SSC NDDDB: S2?	LOW-MODERATE Potential habitat, known from the San Dimas Exper. Forest, but grasses are so dense it likely very limited
<i>Chaetodipus fallax pallidus</i> Pallid San Diego pocket mouse	Open sandy areas in chaparral, scrub and grassland communities. Often alluvial plains.	Fed: none Calif: SSC NDDDB: S3	LOW No finely sorted sandy soils, nng is overrunning native habitat and are so dense it likely very limited.
<i>Eumops perotis californicus</i> California (Western) mastiff bat	Lowlands (with rare exceptions); Cent and So Ca., southern AZ, NM, southwest TX; roosts in deep rock crevices, often cliff faces. Forages over wide area. Can roost in trees.	Fed: None Calif: None NDDDB: S3?	Nesting: LOW Foraging: MODERATE Potential foraging habitat. Early record in Glendora, exact loc. unknown
<i>Lasiurus cinereus</i> Hoary bat	Wooded areas where it roosts in the open by hanging from a branch, forages over wide area. Prefers trees at the edge of clearings, but can occur in heavy forests, open areas and urban areas. Widespread from Canada through the US into Central and S. America.	Fed: None Calif: None NDDDB: S4?	MODERATE Appropriate habitat. Early Records in San Dimas Creek and Big Dalton Dam.
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	Chaparral, coastal or Riversidean sage scrub with adjacent open grassland. Los Angeles County south to San Quintin, Baja Ca, Mex.	Fed: None Calif: SSC NDDDB: S3?	OCCURS
<i>Myotis yumanensis</i> Yuma myotis	Variety of habitats, ie. Juniper and riparian woodlands, Arid shrublands. Closely associated with water. Roosts in caves, attics, buildings, mines, under bridges and similar structures. W. North Am from Canada to central Mex as far east as Ok. Widespread in CA	Fed: None Calif: None NDDDB: S4?	LOW-MODERATE Suitable foraging. Closest record 2.3 mi ne in San Dimas Canyon
<i>Neotoma lepida intermedia</i> San Diego desert wood rat	Arid shrublands, and rocky outcrops and crevices; cismontane Calif., San Luis Obispo to San Diego County and northwest Baja Calif.	Fed: None Calif: SSC NDDDB: S3?	LOW No rocky outcrops and no sign (evidence relatively easily identified)
<i>Onychomys torridus Ramona</i> So. grasshopper mouse	Arid cismontane lowlands, LA through SD counties and northwest Baja Calif.	Fed: None Calif: SSC NDDDB: S3?	LOW-MODERATE Potential habitat, but grasses are so dense it likely very limited

Special Status Species	Habitat and Distribution	Status Designation	Occurrence Probability
<i>Ovis canadensis nelsoni</i> Nelson's bighorn sheep	Open shrublands and conifer forest, remote mountains; scattered populations in Transverse ranges, Mojave des. Ranges, White Mtns. Typically inhabits slopes at elevations of 2500-5000 ft. in winter and 6000-8500 in summer.	Fed: None Ca: None NDDB: S3	ABSENT No sign. Below elevational range Population 6 mi. n of site. Unlikely they utilize site.
<i>Perognathus longimembris brevinasus</i> Los Angeles pocket mouse	Annual grassland, sage scrub, alluvial sage scrub. Prefers open ground with fine sandy soils. So California from Rancho Cucamonga (west boundary), San Gorgonio (east), Aguanga and Oak Grove, San Diego (south).	Fed: None Calif: SSC NDDB: S1S2	LOW Fine sandy soils were not observed Closest recorded loc. 16 mi e in Rancho Cucamonga area
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	Many habitats throughout Calif. and western North America; scattered populations in the east; day roosts in caves, tunnels, mines; feeds primarily on moths	Fed: None Calif: SSC NDDB: S2S3	MODERATE Potential habitat
<i>Taxidea taxus</i> American badger	Mountains, deserts, interior valleys where burrowing animals are available prey and soil permits digging; Usually open treeless areas. throughout Central and western North America	Fed: None Calif: SSC NDDB: S4	LOW No open loose soils observed. Dense grasses, shrubs, woodland Closest occur. 0.5 mi sw of site

General references: *Natural Diversity Data Base Special Animals 2010*.
 Status designations and occurrence probabilities are defined in the Key Appendix A

Sensitive Mammals

The sensitive mammal species determined to have potential habitat within the survey area and a moderate or high potential to occur on-site include; Dulzura pocket mouse (*Chaetodipus californicus femoralis*), Hoary bat (*Lasiurus cinereus*), Yuma myotis (*Myotis yumanensis*) southern grasshopper mouse (*Onychomys torridus Ramona*) and Townsends big-eared bat (*Corynorhinus townsendii*). Determining the presence of potential habitat for many of these species is difficult as many bat species roost in a wide variety of locations and forage over large areas. Those species that require access to water were less likely to occur. L&L relied on these general habitat descriptions and records of bat species in the area to determine potential occurrence. Those species that are not as likely to roost in the survey area, but likely forage include; pallid bat (*Antrozous pallidus*) and western mastiff bat (*Eumops perotis californicus*).

4.5.5) Butterflies

A total of 25 butterfly species were observed on the site during the 2010 surveys. A list of all observed species is included in Appendix A. Only the quino checkerspot butterfly (*Euphydryas editha quino*) (QCB) was documented by the CNDDDB and previous biological reports as a sensitive invertebrate species potentially occurring in the area.

Table 10. Special Status Invertebrate Species

Special Status Species	Habitat and Distribution	Status Designation	Occurrence Probability
INVERTEBRATES (1):			
<i>Euphydryas editha quino</i> Quino checkerspot butterfly	Lower elevation (sea level to 4500 feet) although increasing in upper elev. Range. meadow areas, or clearings within coastal sage scrub or grassland vegetated by their host plants: dwarf plantain and owl's clover.	Fed: END Calif: None NDDDB: S1	ABSENT

General references: *Natural Diversity Data Base Special Animals 2010*.
 Status designations and occurrence probabilities are defined in the Key Appendix A.

Quino Checkerspot Butterfly

The quino checkerspot butterfly (QCB) is a geographic race (subspecies) of *Euphydryas editha*, whose combined ranges extend from northern Baja California to Canada along the Pacific coast, and east to Colorado (Bauer, 1975). The QCB is presently known to exist only as several, probably isolated, colonies in southwestern Riverside County, southern San Diego County and northern Baja California, Mexico.

This butterfly is associated with sparsely vegetated or bare areas usually characterized by clay or cryptobiotic soil deposits that develop a hard crust within southern California sage scrub vegetation communities. Low-growing herbaceous annuals including the QCB's primary larval host plant, dot-seed plantain, *Plantago erecta* (Plantaginaceae), typically inhabit these areas. Other potential QCB host plants (usually secondary) may occupy these areas and include owl's clover (*Castilleja exserta*) and white snapdragon (*Antirrhinum coulterianum*), both in the plant family Schrophulariaceae.

Although the Northern Foothills Implementation Program EIR indicates that habitat on-site should be assessed for host plants, the USFWS Recovery Plan (2002) and the CNDDDB records indicate that the survey area is located well outside of the current known range of the species. Records from Los Angeles, San Bernardino and Orange Counties are historic and are listed on the Quino Recovery Plan as occurring before 1986 and consist of very few records. The closest recorded quino location is an historic record in Orange County, approximately 4.5 miles to the southwest of the site.

L&L biologist Guy Bruyeyea was on the site for surveys during the quino flight season 2010 over an extensive period and included a butterfly inventory. No quino were observed. The site does support host plants, however, based on the survey data, dates conducted and the publication of the Recovery Plan 2002 L&L does not recommend focused surveys (as stated in the NFIP EIR). This species is not expected to occur in the survey area and the probability it occurs on site is very low.

4.6) Mature Significant Trees

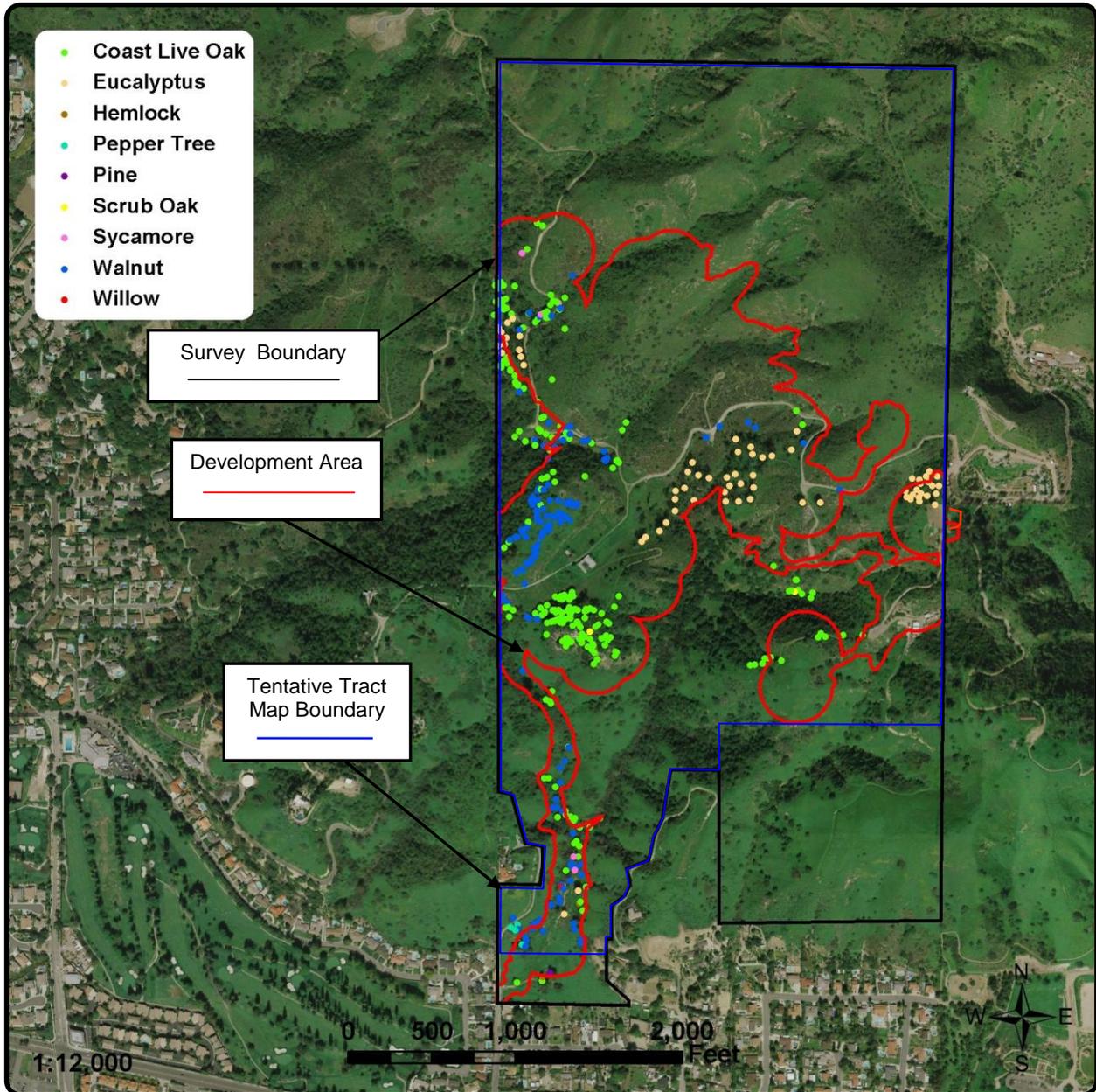
L&L conducted a survey of “Mature and Significant Trees” within the impact area in 2009 and that data is included here. A previous evaluation of the property (Bonterra, 2008) indicates (and L&L concurs) that approximately four thousand (4,000) trees are present on the property (personal comm. Bonterra). Due to the number of trees on the site only those that were near the proposed development were mapped and data collected during the 2009 survey (Figure 9). The data collected was used to determine the number and type of trees that will be impacted by the proposed development and if they met the City of San Dimas definition of “mature significant tree.” Table 16 in Appendix A contains species, size, and health information for the trees. The trees mapped included coast live oak, walnut, sycamore and eucalyptus.

Trees that fall outside of the development area, but within the fuel modification zone would be treated per the requirements of the Fuel modification plan (Forma, 2009). The Fuel Modification Plan proposes to retain existing trees (outside of the development area) allow closed canopies to be retained where already existing, but requires trees be limbed up half the height of the tree or six feet above the ground.

4.7) Jurisdictional Drainages

Bonterra conducted a jurisdictional delineation in 2008. L&L verified the delineation in 2009 and calculated the impacts in 2009 based on the project design current at that time. The parcels include area within four (4) canyon areas (Shay Canyon, Shuler Canyon, Sycamore Canyon, and Wildwood Canyon). In 2010 the survey area increased from the area evaluated in 2008/2009 to the current 314 acre survey area. Most of Shay Canyon was not previously included in the Bonterra survey area. L&L estimated the jurisdictional area and impacts to Shay Canyon by aerial photo, topography and general observations of the drainage in 2010. Shay Canyon, Shuler Canyon and Wildwood Canyon are within the development area (Figure 10). The total estimated drainage area within the parcels is 25.4 acres of Army Corps of Engineers (ACOE) and California Department of Fish and Game (CDFG).

Soil types are not consistent with an alkali playa or vernal pool complex and pools or depressions characteristic of vernal habitat were not noted as present on the subject property.



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STF-09-137
September 2010

Figure 9
**Mature Significant Trees
In Development Footprint**
(Photo provided by GlobeExplorer, 2008-03-01)
Mapped by L&L 2009

TTM 70583, City of San Dimas
County of Los Angeles, California

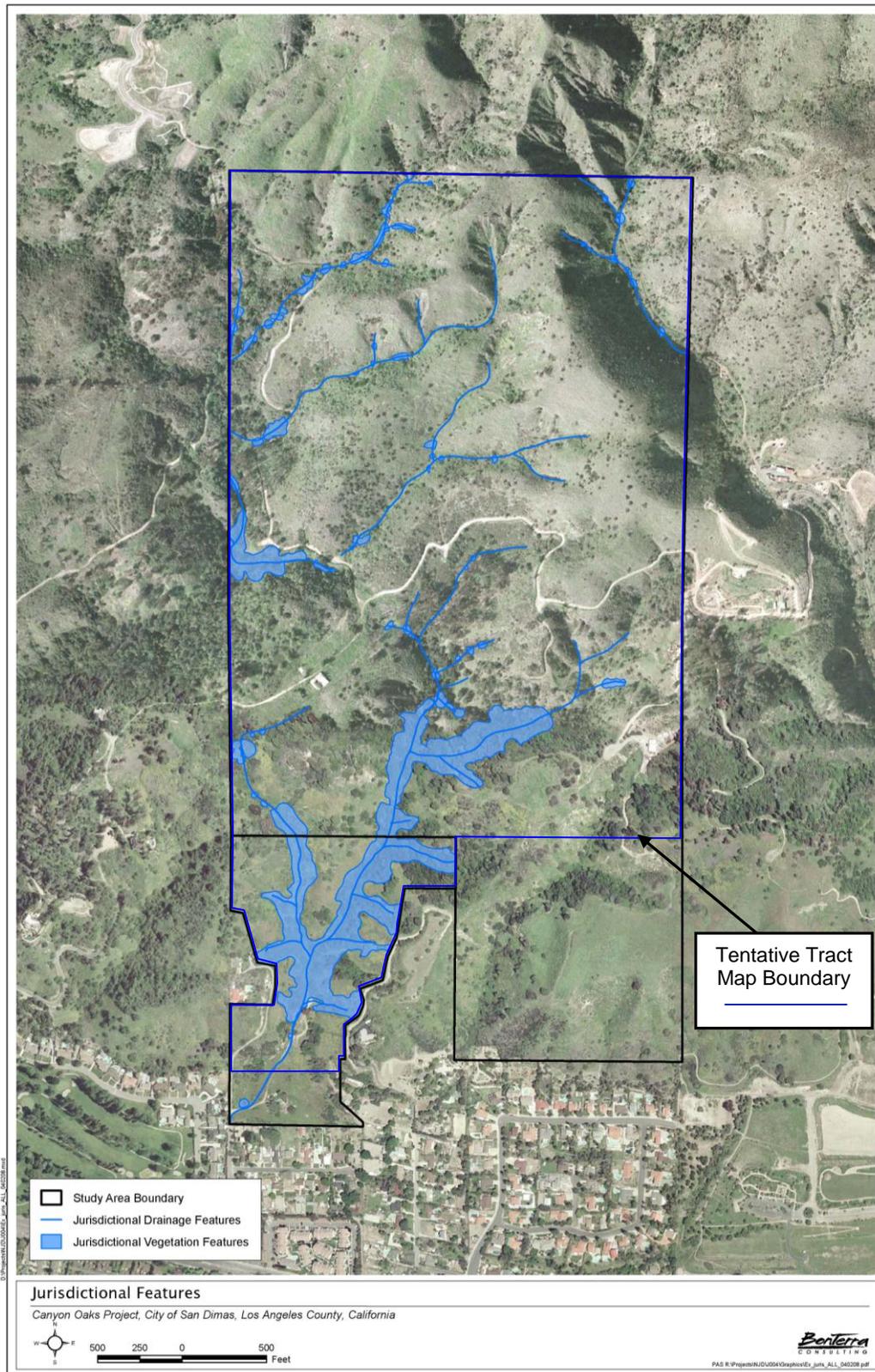


Figure 10. Bonterra Jurisdictional Feature Map of Survey Area

5.0) IMPACTS

Direct impacts of the project are those that result from clearing, grubbing, grading and fuel modification. Direct impacts were evaluated with respect to general biological impacts, state and federal listed endangered or threatened species, species of Special Concern, sensitive habitats, jurisdictional drainages and wetlands, and issues of local concern such as the San Dimas Tree Ordinance. The area identified on the report figures as the Development Area (displayed with a red boundary), encompasses the 90± acre impact area and fuel modification zone. Impacts to biological resources within the fuel modification zone were evaluated and added into the calculations of impacts and mitigation. This includes areas impacted where the fuel modification currently extends into the 83 acre remainder parcel. The calculations were based on the Fuel Modification Plan provided by Forma, dated August 19, 2009 (Appendix C).

5.1) Vegetation Communities

Based on the designs provided and the Bonterra habitat map (Figure 11), impacts to vegetation communities were calculated at approximately 83.8 acres on-site and 0.18 acres off-site through grading. An additional 25.97 acres falls within the fuel modification zone and will be impacted based on the conditions of the Fuel Modification Plan. Within the development footprint 27.79 acres of non-native habitats including non-native grassland, developed and ornamental habitats will be impacted by grading and an additional 4.07 acres by fuel modification. Removal of non-native habitats is not considered significant as the vegetation is not native and it provides little quality habitat for wildlife species. Between 6 and 10 acres will be impacted temporarily for construction purposes, the majority of which fall within the Fuel Modification Zone. All of these impacts will be addressed in the Mitigation Plan.

The native habitats impacted include coastal sage scrub, mixed chaparral, elderberry scrub and intergrades of each, as well as a variety of mixed woodlands made up of sycamore, coast live oak and walnut woodlands. Impacts for each community are listed below in Table 11. Impacts to chaparral communities would be considered adverse, but not significant due to the wide tracts of chaparral habitat still left in the region, including those avoided within the survey area.

Although sycamore and coast live oak woodlands are not listed on the CDFG list of rare and threatened vegetative communities, impacts to these communities would be considered significant. These woodland habitats occur along drainages within the survey area and development area and impacts to drainages, including the associated habitat, are regulated by the US Army Corps of Engineers (Section 404) and California Department of Fish and Game (Section 1603) during the permitting process. Those trees that area outside of the ACOE and CDFG jurisdiction, but will still be impacted would be regulated and mitigated under the City of San Dimas Mature and Significant Tree Ordinance (Section 5.3 and 6.2).

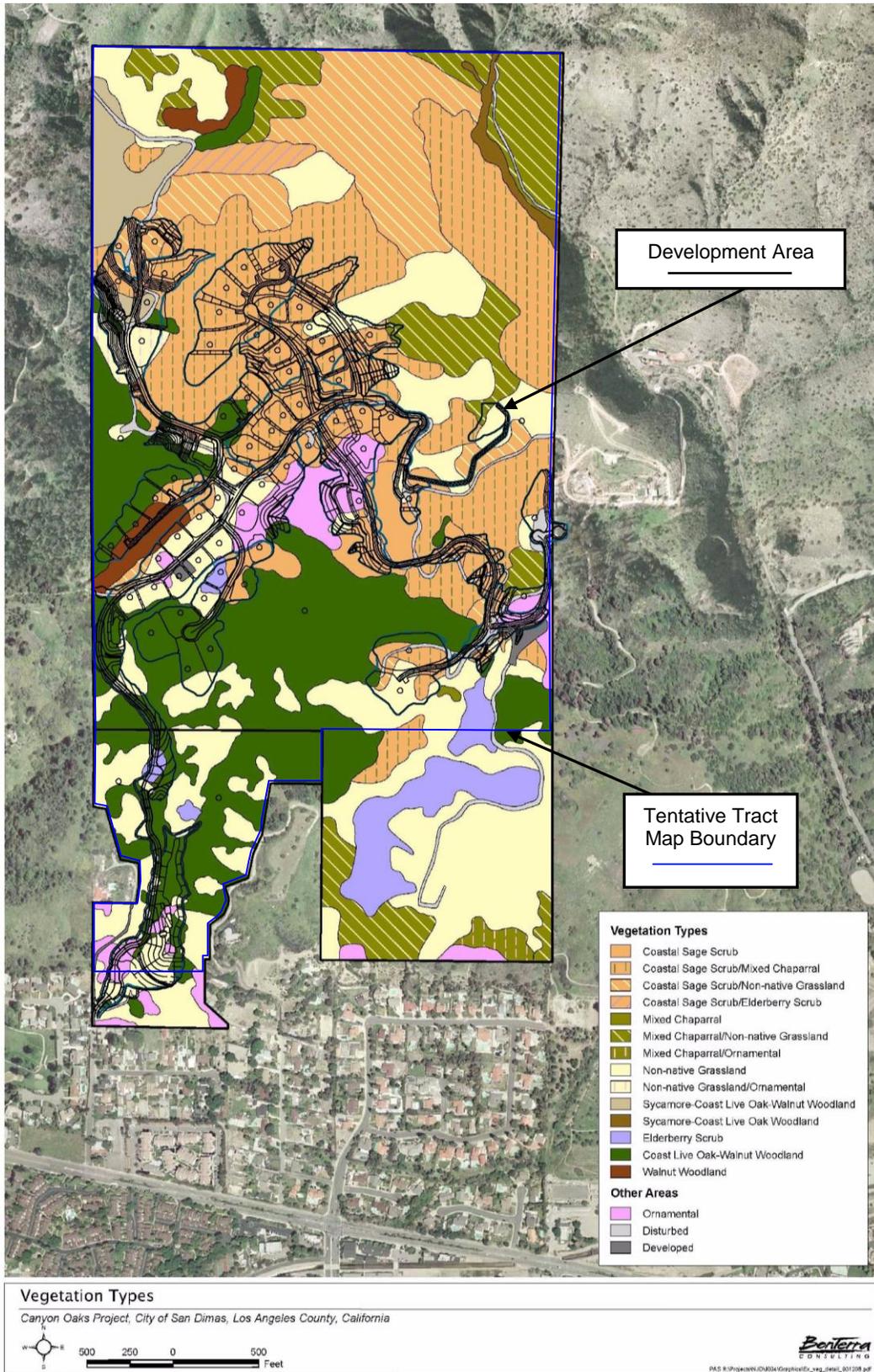


Figure 11. Project Design over Bonterra Habitat Map

Table 11. Permanent Impacts to Vegetation Communities

Plant Community	Acreage On-Site	Acreage Off-Site	Acreage Within Grading Limits	Acreage Outside of Grading Limits, But Within Fuel Modification Zone	Acreage Outside of the Impact Limits
Coastal Sage Scrub (CSS)	10.12		6.25	2.31	1.56
CSS/Mixed Chaparral	70.93		28.35	8.81	33.77
CSS/NNG	25.74	0.08	2.76	0.95	22.11
CSS/Elderberry Scrub	2.60		0	0	2.60
Mixed Chaparral	0.18		0.01	0	0.17
Mixed Chaparral/NNG	25.44		0.27	0.98	24.19
Mixed Chaparral/Ornamental	0.69		0	0	0.69
Sycamore-Coast Live Oak-Walnut Woodland	6.52		1.05	0.77	4.70
Sycamore-Coast Live Oak Woodland	1.85		0	0	1.85
Elderberry Scrub	10.40		0.73	0.08	9.59
Coast Live Oak-Walnut Woodland	62.05		15.35	6.82	39.88
Walnut Woodland	4.05		1.32	1.18	1.55
Non-native Grassland (NNG)	70.39		13.56	2.43	54.40
NNG/Ornamental	2.23		1.67	0.23	0.33
Ornamental	11.05		7.13	0.94	2.98
Disturbed	8.56	0.10	4.98	0.36	3.32
Developed	1.10		0.55	0.11	.44
Total	313.9	0.18	83.98	25.97	204.13

Additional areas of the non-native grassland, ornamental, disturbed or developed areas that are not proposed for impacts by the development may be impacted during the mitigation process. Portions of the non-native grassland and native habitat intergrades may similarly be impacted by enhancement implementation. The Project applicant biologist in coordination with the regulatory agencies will determine the area best suited to be utilized for any onsite restoration and enhancement. Removal of non-native habitats is not considered significant as the vegetation is not native and it provides little quality habitat for wildlife species.

5.2) Sensitive Vegetation Communities

5.2.1) Coastal sage scrub

Approximately 6.25 acres of coastal sage scrub is within the grading limits and 2.31 acres fall within the Fuel Modification Zone. An additional 31.11 acres of coastal sage scrub mixed communities is within the grading limits and 9.76 acres within the Fuel Modification Zone. Impacts to this community are considered adverse and significant by local, state and federal agencies. Mitigation measures are outlined in Section 6.1 and will be addressed in greater detail in a project mitigation plan.

5.2.2) California Walnut and Oak Woodlands

Approximately 1.32 acres of California walnut woodland is within the grading limits and 1.18 acres fall within the Fuel Modification Zone. An additional 16.4 acres of California walnut mixed woodland communities including oak are within the grading limits and 7.6 acres within the Fuel Modification Zone. Impacts to this community are considered adverse and significant by local, state and federal agencies. Mitigation measures for impacts to this community are outlined in Section 6.2 and 6.3 and will be addressed in greater detail in a project mitigation plan.

5.3) Mature Significant Trees

During the survey of the current proposed development area, a total of 220 coast live oak (5.5% of the estimated total trees in the survey area), 138 walnut (3.4%), 5 sycamore (0.1%), and 67 (1.7%) *Eucalyptus* trees were identified and mapped (Figure 9) that met the City of San Dimas definition of “mature significant tree.” Table 16 in Appendix A contains species, size, and health information for the trees. An estimated total of 430 trees may be impacted within the development area, representing approximately 10.8% of the trees present within the property. Of the trees planned for impact, 363 (9.1% of all trees on the property) are native species. Mitigation for trees that meet the City of San Dimas definition of “mature significant tree” and are planned for removal will be required.

Trees identified as mature and significant trees that are located outside of the development area, but within the fuel modification zone are not planned for removal, but may require pruning under the Fuel Modification Plan conditions. Tree pruning can also be considered adverse and significant as it can affect the long-term health of the tree. Mitigation for impacts to trees within the fuel modification would be dealt with along with the mitigation measures for all impacted trees as outlined in Section 6.2 and in greater detail within the mitigation plan.

5.4) Special Status Botanical Species

Protocol For Surveying And Evaluating Impacts To Special Status Natural Plant Populations And Natural Communities states in part: Adverse conditions may prevent investigators from determining the presences of or accurately identifying some species in potential habitat of target species. Disease, drought, predation or herbivory may preclude the presence or identification of target species in any given year. Failure to locate a known special status plant occurrence during one field season does not constitute evidence that the plant occurrence no longer exists at this location, particularly if adverse conditions are present. For example, surveys over a number of years may be necessary if the species is an annual plant having a persistent, long-live seed bank and is known not to germinate every year. Visits to the site in more than one year increase the likelihood of detection of a special status plant specifically if conditions change.

36 special status botanical species were searched for during the focused botanical survey and evaluated for the potential to occur in the survey area, of which thirteen were either observed or determined to have the potential to occur on-site. One of these (thread-leaved brodiaea) is federally listed as threatened and state listed as endangered.

Survey of the entire 314 acre project site in the 2010 spring survey year, a year with adequate rainfall, when known populations of thread-leaved brodiaea were found to bloom did not result in the plant being observed. Although clay soils were not observed in the survey area, other botanical species that occur in clay soils were observed, therefore, it is likely that some subsurface clay soils may be present. The reference site population occurs in CSS/chaparral similar to that community found within the survey area (although the specific group of plants associated with the reference population was not observed within the survey area). The presence of potential habitat, the presence of critical habitat for the thread-leaved brodiaea in the northwestern corner of the survey area and the fact that botanical species do not germinate every year led to the determination that there remains a moderate potential for this species to occur in the survey area. There is a considerably lower potential for the species to occur within the development area as surveys have been conducted over two years and an area of only ±3.95 acres falls within the currently mapped critical habitat. Revised critical habitat for this species has been proposed by the USFWS, which would exclude the graded area, but may still be affected by the fuel modification zones.

This species is state and federally listed and if it were present and or critical habitat is impacted by any portion of the development and impacts could not be avoided, these impacts would be considered significant. Any mitigation warranted for this species would occur via consultation with the lead agency and regulatory agencies during the permitting process and if necessary, will be detailed in the mitigation plan.

The project also supports the Plummer's mariposa lily and has the potential to support ten other special status plant species not listed as state or federally threatened, endangered or candidate species, including Greata's aster, round-leaved filaree, Catalina mariposa lily, San Gabriel Mountains dudleya, many-stemmed dudleya, pious daisy, San Gabriel bedstraw, Palmer's grappling-hook, mesa horkelia and Robinson's pepper-grass.

Although it is possible these species could occur within the development area, based on the completion of two years of surveys in this area and a lack of any sightings the potential of a significant population occurring within the development area is considerably less. Although the project has the potential to result in the loss of these species, impacts would be considered adverse but not significant because none of these species is currently listed as threatened or endangered by state and/or federal resource agencies and substantial populations are not likely within the impact area. No additional focused surveys or mitigation is required for these species.

The California Department of Fish and Game Department considers Rare Natural Communities (Coastal Sage and Walnut Woodlands) to be the same as threatened and requires avoidance, minimization and mitigation measures to be applied to these communities. Impacts to these communities / species would be mitigated at a 2:1 replacement ratio. They will also be addressed in the conditions of the Streambed Alteration Agreement and in the project mitigation plan.

California black walnut woodland and mixed coast live oak walnut woodland were identified on the project site and within the impact area. Impacts to this species are addressed in Sections 5.1.2) Sensitive Vegetation Communities and 5.1.3) Mature and Significant Trees.

5.5) Common Wildlife

Development of the proposed project will result in the removal of approximately 83.8 acres of varying quality wildlife habitat and will significantly alter 25.97 through fuel modification. These habitats support a wide variety of local wildlife by providing nesting, denning, foraging and other basic needs. Removal of both native and non-native habitats would result in the direct losses of small, less mobile species utilizing the development area including amphibians, reptiles, mammals and others. Other, larger and more mobile species may be able to avoid direct losses, but would be relocated to the surrounding habitats. These species may be affected by an increased demand on resources in these areas as well as other development in the area and indirect impacts (outlined below in Section 5.10). Although the project would result in the loss of individual wildlife species, the loss of overall habitat would not result in impacts to the long-term viability of general wildlife populations in the region because of the undisturbed native habitats surrounding the development area including the permanent open space in the National Forest. Impacts to these species would be considered adverse, but not significant.

5.6) Special Status Wildlife

66 special status wildlife species were searched for during the focused botanical survey and evaluated for the potential to occur in the survey area, of which twelve were either observed or determined to have the potential to occur on-site. None of these species are state or federally listed as threatened or endangered.

The survey area supports the Cooper's hawk, northern harrier, California horned lark, loggerhead shrike and San Diego black-tailed jackrabbit and has the potential to support fifteen other special status wildlife species not listed as state or federally threatened, endangered or candidate species, including California silvery legless lizard, coastal western whiptail, San Bernardino ringneck snake, San Bernardino mountain kingsnake, coast horned lizard, California rufous-crowned sparrow, grasshopper sparrow, Bell's sage sparrow, yellow warbler, summer tanager, Dulzura pocket mouse, Hoary bat, Yuma myotis, southern grasshopper mouse and

Townsend's big-eared bat. Although the project has the potential to result in the loss of these species and/or their habitats, impacts would be considered adverse but not significant because none of these species is currently listed as threatened or endangered by state and/or federal resource agencies and native habitats similar to those in the survey area are located adjacent to the site and are common within the region. No additional focused surveys are required for species without local, state or federal listing status, with the exception of nesting raptors, which are discussed below.

The site also supports the coastal cactus wren. This species is a significant California species of special concern and occurs within CSS habitats that support substantial patches of cactus, typically on south-facing slopes. The development of the site will impact approximately 8.6 acres of CSS and an additional 40.87 acres of CSS mixed communities that could support this species. Impacts to this species would be considered adverse but not significant because none of these species is currently listed as threatened or endangered by state and/or federal resource agencies, unless local ordinances restrict impacts specifically to the species. Impacts to this species would be reduced by the mitigation measures required for the replacement of the coastal sage scrub habitat, wherein the existing habitat would be stockpiled with topsoil to be later placed on the revegetation areas; likely resulting in the regrowth of coastal sage scrub with cactus species similar to what currently exists.

In addition, several bird and bat species of concern have the potential to utilize the site for foraging, but are unlikely to nest or roost; sharp-shinned hawk, ferruginous hawk, prairie falcon, pallid bat (*Antrozous pallidus*) and western mastiff bat (*Eumops perotis californicus*). The project will reduce native and non-native habitats in the development area and will result in the reduction of foraging habitat. Similar to the Species of Concern observed on the site, impacts to Species of Concern not observed, but which have a moderate or high potential of occurring, would be considered adverse but not significant because native habitats similar to those in the survey area that can be utilized for foraging are located adjacent to the site and are common within the region. No additional focused surveys are required for species without local, state or federal listing status.

5.7) Raptor Nesting

Trees suitable for raptor nesting and evidence of previous and current nesting are present within and around the site. Impacts to nesting raptors could occur if raptors nest within the impact area immediately prior to or during development. Impacts to actively nesting raptors are regulated under the Migratory Bird Treaty Act and are considered significant. Avoidance of construction during the nesting season (February 1 through August 31), and a preconstruction nesting bird (including raptors) survey would be required. If construction can not be avoided during the nesting season and nesting raptors are found within the impact or immediately adjacent an avoidance of the nest and a suitable buffer (300-500 lf) would be required until such

time as the young have fledged or the nest has otherwise been determined to have become inactive by the project biologist.

5.8) Wildlife Corridors

A wildlife corridor can be defined as an area of habitat that links two larger patches of habitat and allows animals to move between the two. These can either link large regional areas or smaller local tracts of land. Often tracts of suitable habitat are separated by development, rugged or impassable terrain or dense vegetation.

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). Without connections between tracts of open land populations can become isolated and habitat fragmented. These linkages effectively allow a series of small, connected patches to function as a larger block of habitat and perhaps result in the occurrence of higher species diversity or numbers of individuals than would otherwise occur in isolation. Wildlife corridors are considered sensitive as development has been regularly reducing open space and restricting open space to islands of habitat throughout southern California.

The proposed project is located at the northern limits of the developed portion of the City of San Dimas. The property falls between residential development and the Angeles National forest. Due to the location of the project site along the southern edge of the San Gabriel Mountains and the National forest, there is likely significant wildlife movement in the area. Of the 314 acres surveyed, almost all of which is currently undeveloped, ±90 acres are proposed for development. Development will occur within portions of Shay, Shuler and Wildwood Canyons and would likely reduce movement within these drainages, but movement around the development through the remaining open tracts of land both on and adjacent to the survey area would still be possible.

The project is in a location where it is surrounded, at a distance, by developed areas on three sides. The survey area does not connect large tracts of open space that would otherwise be separated and would not cause the creation of islands of isolated habitat if developed. Although limitations to wildlife movement will take place as a result of the proposed development it will not occur to the extent that it would be considered regionally significant.

5.9) Jurisdictional Impacts

Of the 25.4 acres of Army Corps of Engineers (ACOE) and California Department of Fish and Game (CDFG) qualified jurisdictional drainages estimated planned impacts within the development area include 6.31 acres of CDFG jurisdiction including areas of ACOE drainages

(Figure 12). Regulatory (404/401/1602) permits and updated ACOE forms according to the new Arid West Guidelines will be required prior to the start of construction.

Table 12. Jurisdictional Drainages and Planned Impacts

Canyon	Present On-site			Planned Impacts			Jurisdiction
	Length (ft.)	Area (sq. ft.)	Acres	Length (ft.)	Area (sq. ft.)	Acres	
Shuler	11,506	841,776	19.324	5,213	217,692	4.998	CDFG/ACOE
Sycamore	2,042	18,410	0.423	0	0	0	CDFG/ACOE
Wildwood	9,498	187,818	4.312	3,216	47,917	1.100	CDFG/ACOE
Shay (est.)	2,343	58,575	1.345	345	9,200	0.211	CDFG/ACOE
Total	25,389	1,106,579	25.40	8,774	274,809	6.31	

5.10) Overall Direct Impacts

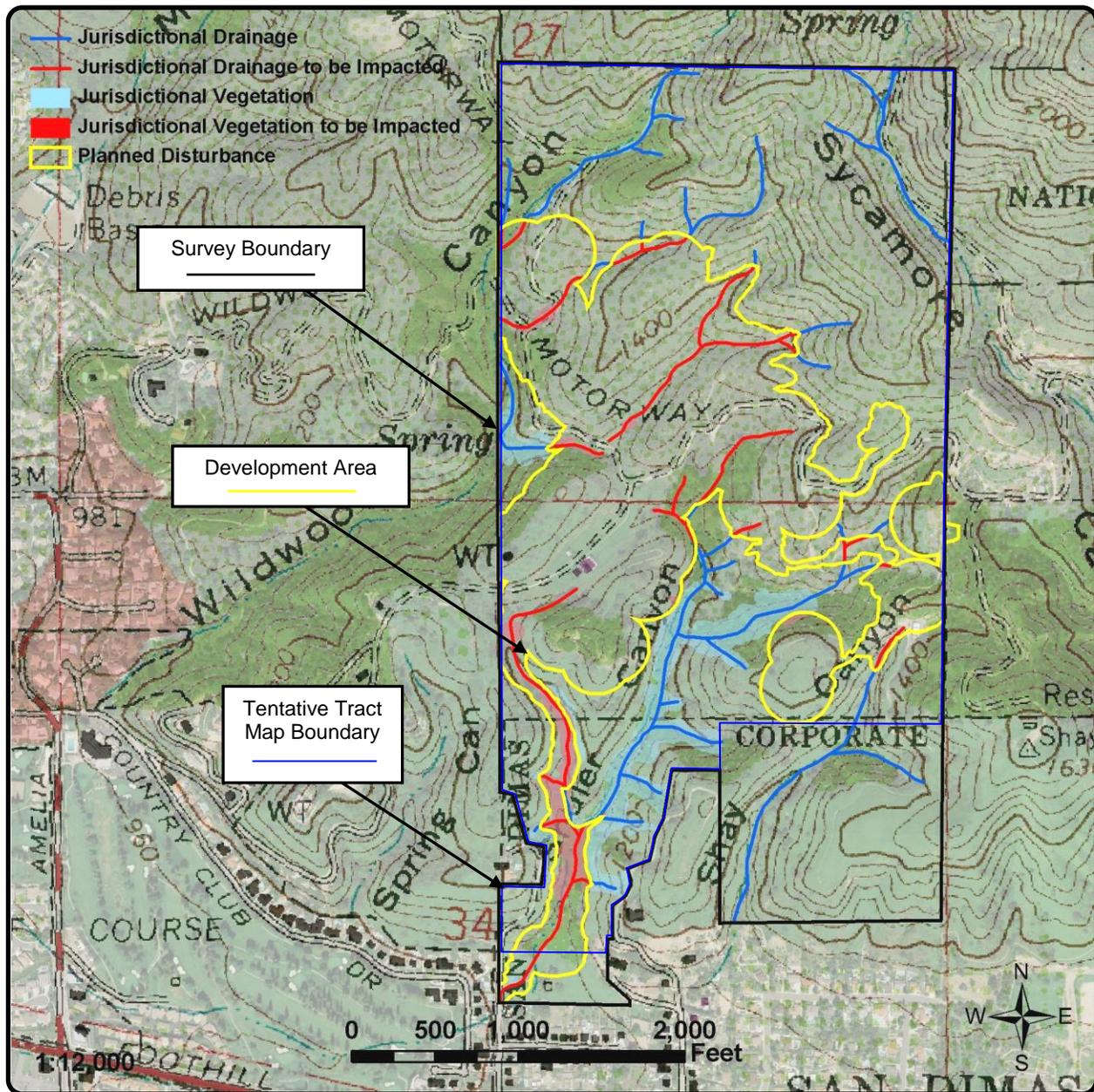
Direct impacts to sensitive species, communities and drainages are shown on Figure 13 for easy review. Sensitive species observed include those from both 2009 and 2010. Individual trees were not displayed because many of them would be obscured by the other layers. They are instead shown as sensitive woodland habitats, within which the trees occur. Areas with sensitive habitats or integrades are identified by hatching. Critical habitat for the thread-leaved brodiaea falls across the northwest corner of the site and is also included in Figure 13.

5.11) Indirect Impacts

Development of the Project has the potential to result in indirect impacts associated with locating development in proximity to national forest lands and/or conservation areas. A remainder parcel of 83.97 acres is intended and planned for habitat conservation and open space. This parcel is located on the north side of the development area between the development and National Forest Lands. Most likely, indirect impacts to vegetation, wildlife and waterways would result from the following, which are regarded as significant impacts requiring mitigation.

Drainage: Project development could result in indirect impacts to drainage including increased trash/debris and pollutants from stormdrain outfalls, increased sedimentation and during construction, erosion and transportation of silt to adjacent waterways and downstream riparian areas unless it is treated. Construction measures designed to prevent downstream siltation and prevent erosion could impede flows to habitat downstream.

Both temporary and permanent storm water management will be designed in such a way as to maintain the flows to sensitive down stream habitats. Construction personnel shall employ all standard best management practices to ensure that toxic materials, silt, debris,



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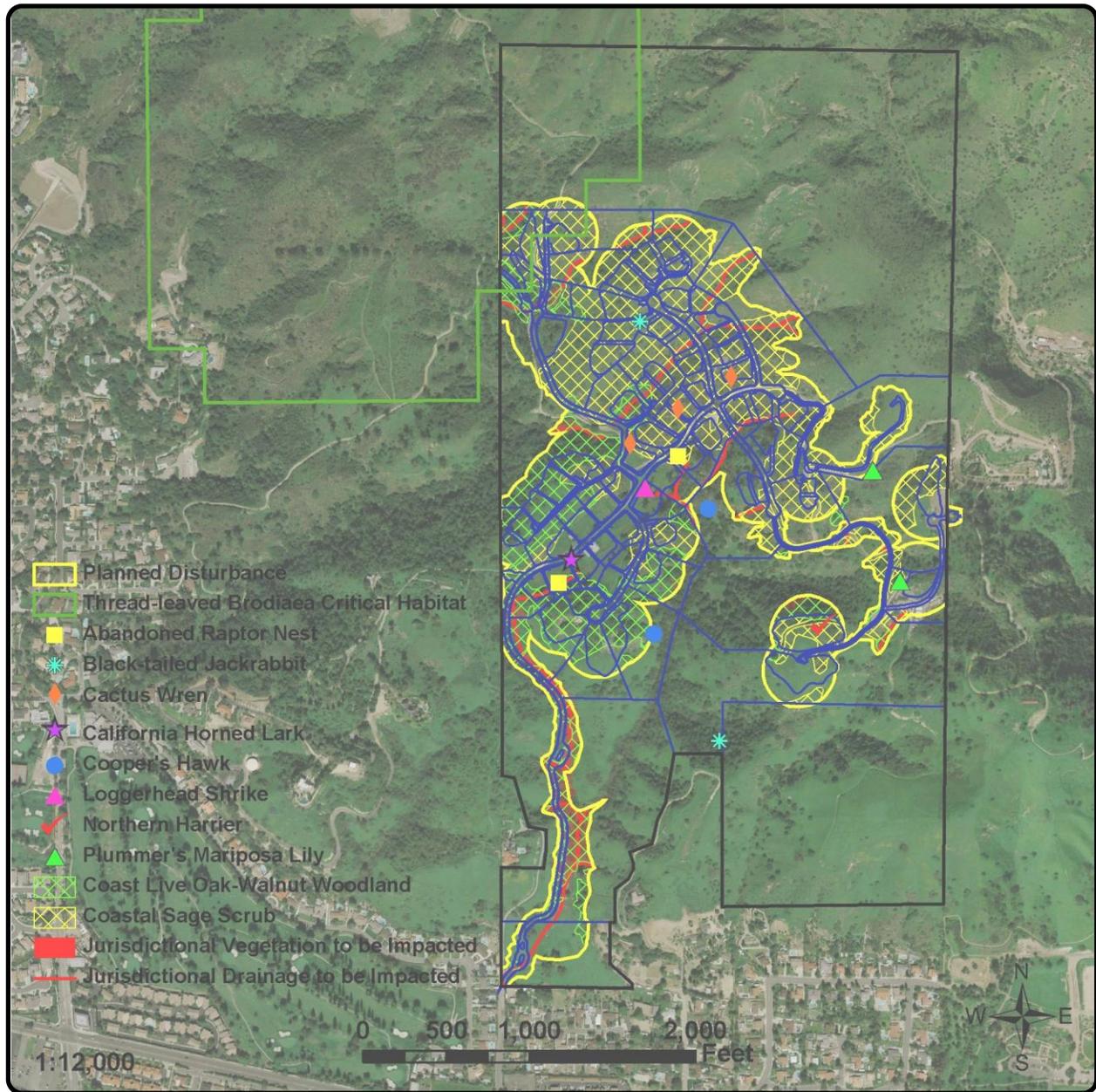
BIOLOGICAL AND CULTURAL
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STF-09-137
 September 2010

Figure 12

Jurisdictional Areas
 (Photo provided by GlobeXplorer, 2008-03-01,
 USGS Glendora [1972] quadrangle)

TTM 70583, City of San Dimas
 County of Los Angeles, California



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Figure 13

**Overall Direct Impacts to
Sensitive Biological Resources**

(Photo provided by GlobeXplorer, 2008-03-01)

TTM 70583, City of San Dimas
County of Los Angeles, California

or excessive erosion do not enter waters of the U.S. during project construction. Drainage improvements throughout the Project would include several water quality basins designed to filter out contaminants and promote water quality. The Project Water Quality Management Plan would treat all urbanized surface storm water runoff and dry-weather nuisance flows through the Project's detention basins prior to discharge. The detention basins are designed with the storage time necessary to allow for pollutant removal.

- **Lighting:** Artificial lighting introduced to the Project site both during construction and following development has the potential to impact wildlife in the surrounding natural habitat. Restrictions on the construction schedule to daylight hours and in post construction residential backyard lighting will be incorporated. Lighting will be directed towards equipment and towards residential buildings so as to prevent spill-over into natural spaces. Mandatory compliance with lighting standards that regulate and limit light pollution would reduce this impact to below a level of significance.
- **Noise/Vibration:** Increased residential noise and temporary construction noise and vibrations have the potential to impact sensitive wildlife species in adjacent open space and Conservation Areas, resulting in indirect impacts to wildlife species. Noise and vibration disturbance can displace some wildlife species by causing temporary or permanent abandonment or avoidance of areas in close proximity. Mandatory compliance with noise ordinances will limit noise pollution and reduce impacts to below a level of significance.
- **Invasive Plants:** Landscaping adjacent to the open space and the conservation area has the potential to result in invasive plant species being introduced into sensitive vegetation communities. Temporary "tracking" of invasive species into the area by construction equipment or by unauthorized recreational vehicle use also has the potential of introducing non-native species into the surrounding habitat. Limitations on the types of landscape materials used within the development will include a restriction in the CC&Rs to prevent the planting of species listed on the "California Exotic Pest Plant Council, List of Most Invasive Wildland Pest Plants" and the Angeles National Forest list of invasive species (see Appendix E). Construction equipment will be washed before imported to the project site to prevent import of non-native plant material and seeds from entering the site.
- **Herbicides and Pesticides:** Use of landscape and household chemicals shall not be applied in such a way as to allow their overspray or runoff to enter and damage adjacent habitat. Project CC&Rs and HOA Guidelines shall educate and inform the future homeowners of these requirements. Ordinary runoff from yards, parks and landscaped areas will be treated according to the Project Water Quality Management Plan for treatment of all urbanized surface storm water runoff and dry-weather nuisance flows as stated above in the Drainage section.
- **Intrusion:** The placement of development adjacent to open space and the conservation area would increase the likelihood of human intrusion into sensitive areas, including recreational use and the dumping of trash, as well as conversely causing increased wildlife use of developed areas resulting in impacts (roadkill, etc.). Construction personnel may intrude into native areas on lunch and rest breaks or park vehicles outside of the approved project footprint. The HOA Guidelines and the CC&Rs will limit resident use to the project footprint and approved hiking trails in the area. Informational signs at the edge of the development will ask residents to restrict recreational activities to walking the

existing paths and road ways, where available and not to stray into native habitat or allow domestic animals to run into open space habitat or off of a leash. Horse back riding will be limited to the designated trail system and cross country riding will be discouraged. Construction personnel will participate in an educational program and rest and lunch periods will be restricted to the designated areas. All trash will be contained in covered containers and removed from the job site regularly.

- **Dust:** Wind blown dust from the construction area could have an indirect impact on habitat in the area. Similar to mitigation for direct impacts, mitigation measures for indirect impacts to habitat via wind blown dust would be mitigated by best management practices including the use of water applied by water trucks.

5.11.1) Vegetation Communities and Botanical Species

Potential indirect impacts to vegetation communities adjacent to the development area include the typical habitat “edge effects,” increased invasive species (weedy and ornamental) and intrusion of man and/or domesticated animals. During grading and construction there is the potential for increased trash or wind blow debris, higher levels of dust, trampling and potentially spilled or discarded pollutants. A temporary increase in habitat degradation, erosion and transport of wind blown soils could be regarded as a potentially significant indirect impact to avoided areas of the property.

The measures outlined above would minimize impacts to vegetation communities. In addition, proposed mitigation measures for impacts to coastal sage will create and enhance coastal sage scrub habitat at a ratio of 2:1 mitigation for CSS and native species integrades (i.e. CSS/chaparral or CSS/elderberry scrub) shall occur at a 1:1 ratio and mitigation for CSS and non-native grasslands/ruderals shall occur at a .5:1 ratio (Section 6.1).

CSS or CSS communities shall be mitigated on-site as restoration of non-native or disturbed/developed areas within avoided and preserved sections of the project, on-site as enhancement of CSS/non-native communities, off-site within approved mitigation bank(s) or off-site within other property(ies) (i.e. restoration/enhancement programs) available at the time of grading, as approved by the regulatory agencies.

Revegetation and enhancement within the on-site conservation area would produce a more diverse, healthy, self-sustaining community than the non-native grasslands that currently exist over much of the area. When revegetated the habitat should be able to support and be accessed by species similar to those that currently utilize the habitat, and would be accessible to species that may enter these areas from the upper reaches of the surrounding hillsides. The Project’s proposed mitigation plan allows for creation and enhancement of impacted natural communities and would reduce project impacts to a less than significant.

Thread-leaved brodiaea

Critical habitat to support the federally endangered and state threatened thread-leaved brodiaea is located west and northwest of the proposed project in and outside of the survey boundaries. A small portion of critical habitat occurs within the proposed development boundary and will be impacted. Thread-leaved brodiaea was not observed during either the 2009 or the 2010 focused survey. Thread-leaved brodiaea is known to occur in the vicinity of the project. Indirect impacts to this species and the area of critical habitat may occur as a result of increased human occupation in the area, increased domestic animals and unauthorized collection. The measures outlined above would minimize indirect impacts to the thread-leaved brodiaea, including measures to reduce invasive species, dust and human intrusion.

5.11.2) Wildlife

The survey area and off-site improvement areas either lack suitable habitat for or were determined to not currently support any state or federally listed endangered or threatened species, with the exception of the thread-leaved brodiaea (Discussed above in Section 5.10.2). As such, no indirect impacts are expected to occur to these species.

Impacts to habitat can also indirectly disturb and displace wildlife that relies on these areas for shelter and food. Impacts to species that are not protected by federal or state listings would not threaten the regional population; therefore, removal of habitat for non-listed species represents an adverse, but less than significant impact to regional populations of these species.

Nesting Raptors and CDFG Fully Protected Species

Habitat to support nesting raptors, including the golden eagle and possibly the white-tailed kite, is present in the survey area and within the project footprint and increased indirect impacts to nesting birds could occur via the introduction of humans and domestic animals. During construction noise and increased disturbance could disrupt the nesting/fledging cycle. If construction is to occur during the raptor-nesting season (February 1–August 31), a preconstruction survey conducted not more than 72 hours of the start of construction will be conducted. If active nests are discovered a perimeter fence will be placed allowing a buffer of 300 - 500 linear feet and construction activities shall be prohibited in the area until such time as the project biologist has determined that the young have fledged or until the nest is otherwise found to be inactive.

In the event that a fully protected species is found to be nesting on the site, all work in the area will stop and a consultation with the regulatory agencies shall occur. This consultation will result in mitigation measures that will include temporary avoidance of the occupied area, a buffer zone of 300 - 500 lf. until such time as the nest is no longer active and passive relocation (removal of the tree and nest after abandoned), avoidance of the nest and permanent

preservation of the area, or development of an approved alternate nesting site (after the nest is no longer active).

Nesting Birds and Migratory Birds

Habitat known to support nesting and to some extent migratory birds is present within the project footprint, the property and within the surrounding open space lands. Indirect impacts may occur as a result of increased human and domestic animal interaction with this habitat. If construction activity is to take place during the nesting bird breeding season (i.e. February 1 through August 31), a one-time biological survey for nesting bird species would be conducted within the buffer and the proposed impact area no earlier than 72 hours prior to construction. This survey is necessary to assure avoidance of impacts to nesting active birds (per the federal Migratory Bird Treaty Act). If nesting birds are detected within vegetation that is to be impacted or immediately adjacent the nest location(s) will be protected. A buffer of 25 to 300 feet (specific width to be determined by the project biologists according to species of bird) will be maintained until such time as the project biologist has determined that the young have fledged or the nest is otherwise inactive.

Installation of Mitigation/Revegetation Areas

Indirect impacts to migratory birds, nesting bird, common wildlife and avoided non-native habitat could occur during the installation of mitigation and/or revegetation areas. Installation shall not occur during the nesting season (February 1 through August 31) until or unless the project biologist has determined that nesting birds and sensitive species are not present in the area. This will also reduce impacts to breeding wildlife.

Portions of the non-native grassland, ornamental, disturbed or developed areas that are not proposed for impacts by the development may be impacted during the mitigation process. Portions of the non-native grassland and native habitat intergrades may similarly be impacted by enhancement implementation. The Project applicant biologist in coordination with the regulatory agencies will determine the area to be utilized for restoration and enhancement. The biologist will supervise the installation and establishment of the habitat to insure that indirect impacts do not occur to nesting or regulated species within the avoided area of the project or within in conservation areas.

Impacts to habitat, including non-native grassland, can indirectly disturb and displace wildlife that relies on these areas for shelter and food. Impacts to species that are not protected by federal or state listings would not threaten the regional population; therefore, removal of habitat for non-listed species represents an adverse, but less than significant impact to regional populations of these species.

5.12) Cumulative Impacts

5.12.1) Framework

Cumulative impacts are two or more individual effects that, when considered together are considerable or that compound or increase other environmental impacts, (CEQA S 15355). The individual effects may be changes resulting for a single project or a number of separate projects. Thus cumulative impact discussion should encompass “past, present and probable future projects.” The purpose of the requirement is to avoid “piecemeal” approval of projects without consideration of the total environmental effects the projects would have when taken together.

The evaluation of cumulative impacts may be based upon a list of past, present and probably future projects. Guidelines S 1513(b)(1)(A). Projects that have been approved or are under environmental review should be included in the analysis. When using the list approach the analysis should also define the relevant area used.

It is improper for an analysis to conclude that a project cumulative impacts are insignificant merely because the project contributes to an existing unacceptable environmental condition. Rather in assessing cumulative impacts the determination of whether the project’s contribution is cumulatively considerable should take into account both the project’s incremental effect and the nature and the severity of the pre-existing significant cumulative effect.

Considering these factors, this biological assessment follows the list approach. Table 13 below displays the projects considered in our analysis.

5.12.2) Projects Considered in the Cumulative Analysis

The cumulative baseline for this project includes existing land uses; projects presently under construction and probable future projects that include approved projects, project that have a pending application on file and future development as anticipated by the City as disclosed in the table below.

The geographic scope of the cumulative impact analysis for biological resources includes the foothill areas of the San Gabriel Mountains, including areas of the cities of San Dimas and Glendora.

Table 13. Past, Present and Probable Future Cumulative Projects
 (PBSJ Table 4.0-2)

Number	Cumulative Project	Description
City of San Dimas		
1.	220 West Baseline Road	Seven lot subdivision, including remodel of existing house and construction of six new single-family residences.
2.	359 East Baseline Road	Two lot subdivision.
3.	NWC Bonita Avenue and San Dimas Canyon Road	156 unit Loma Bonita apartment complex.
4.	510 East Arrow Highway	24,122 square foot warehouse, with 2,848 square feet of office and 2,848 square feet of mezzanine.
5.	1404 West Gladstone Street	7,728 square foot gym addition to an existing church site.
6.	1359 West Arrow Highway	6,100 square foot medical office building.
7.	671 East Bonita Avenue	10,550 square foot Fresh-n-Easy Market and 7,843 square foot shop building for Bonita Canyon Gateway project.
8.	650 Cliffside Drive	Tenant improvement to existing building to relocate part of manufacturing process.
9.	SEC Lone Hill and Gladstone Street	Costco building pads.
10.	405 West Gladstone Street	Four lot single-family subdivision.
11.	309 North Lonehill Avenue	18 lot single-family subdivision.
12.	Terminus of Valley Center	18 lot single-family subdivision.
13.	627 West Allen Avenue	10,000 square foot office/storage building.
14.	818 West Gladstone Street	12,000 square foot church and day care building.
15.	155 North Eucla Avenue	9,500 square foot of service buildings, including repair shop and storage.
16.	800 West Cienega	3,000 square foot truck repair service bay.
17.	186 Village Court	Cell site designed as a water tower.
18.	211 West Allen Avenue	Cell site designed as a water tower.
19.	Grove Station	110 units residential, including seven live-work units.
20.	320 Covina Boulevard	Industrial building with 13,880 square feet of warehouse and 8,997 square feet of office space.
21.	1100 Covina Boulevard	Wireless facility alteration.
22.	121, 125 and 129 Puddingstone	Three lot single-family development.
23.	Cannon Avenue	Three lot single-family development.
24.	245 East Bonita Avenue	Renovation of City Hall with 10,900 square feet of additional city offices and a 3,707 square foot addition to Plummer Community Building.
City of Glendora		
25.	Diamond Ridge	6,500 square foot restaurant and 30,000 square foot office.
26.	Cataract Glendora	17 condominium units.
27.	JPI Sevilla Project	161 condominium units and 11,900 square foot professional office.
28.	Glendora Station Project	87 unit condominium project and 4,800 square foot commercial.

Number	Cumulative Project	Description
29.	Bonnie Cove/Gladstone Assisted Living Facility	125 bed facility.
30.	Tract 46680	14 single-family hillside estate lots.
31.	Tract 46916	16 single-family hillside estate lots.
32.	Glendora Commons	52,000 square foot shopping center redevelopment.
33.	NJD	Up to 54 single-family hillside estate lots.
34.	Monrovia Nursery	124 lot specific plan for single-family estate development.
35.	Grand Avenue Retail	14,000 square foot retail with 4,200 square foot restaurant.
36.	Citrus Valley Association of Realtors Office	15,000 square foot office.
37.	Gold Line Extension	Gold Line crossing at Lone Hill Avenue.
38.	Glendora Promenade	85,000 square foot retail center.

Source: City of San Dimas Planning Department 2010; City of Glendora Planning Department 2010

5.12.3) Description of Cumulative Project Impacts

Implementation of the proposed project would result in permanent ground disturbance on and off-site totaling 90± acres of project area, 25.97 acres of fuel modification and 0.18 acres of off-site infrastructure improvements. The primary effects of the proposed project when considered with other projects in the region would be the cumulative loss of natural lands that can support habitat for sensitive species.

Specifically, impacts would occur to 49.43 acres of on-site sensitive upland habitats including CSS habitat and, CSS and Integrades and 26.5 acres of native trees/woodlands (some lowland and jurisdictional) which are considered to be sensitive habitats. Compliance with the CDFG and City of San Dimas mitigation standards which include replacement, enhancement and/or the purchase of off-site mitigation credits would preclude significant cumulative impacts to CSS and CSS communities.

Approximately 2.07 acres (2%) of the impacted on and off-site acreage consists of mixed chaparral or elderberry scrub (not integrades with CSS) and 31.96 acres (29%) are disturbed/ruderal/non-native grassland or ornamental vegetation. Impacts to these communities are not considered significant because those vegetation communities are not sensitive.

Project implementation would result in impacts to a portion of designated critical habitat for the thread-leaved brodiaea, a federal and state listed species. The designation of critical habitat does not preclude development but rather forces a greater level of scrutiny on the development process by the regulatory agencies. Because individual species have not been observed within the development area over two years of recent, consecutive surveys a direct impact to individual plants is not anticipated in this analysis, however, a minimum of informal and possibly formal consultation with the regulatory agencies is anticipated on this issue to determine if impacts to critical habitat will result in reduction in the long-term viability of the species.. Based on the removal of only 3.5 acres within the limits of the designated habitat and the current proposed "Rule" to reduce the area of critical habitat in this area (based on more precise mapping), it is not anticipated that the proposed project would impact the long –term viability of the species, and in fact, the proposed open space conserves all but the 3.95 acres of critical habitat within the survey area With required regulatory compliance the projects cumulative impact would be reduced to below a level of significance.

Project implementation also would result in impacts to Plummer's mariposa lily, Cooper's hawk, coastal cactus wren, northern harrier, California horned lark, San Diego black-tailed jackrabbit as well as non-sensitive wildlife. Mitigation measures provided in Section 6.0 would reduce

direct and cumulative impacts to the wildlife species, including nesting birds, to below a level of significance. Due to the number identified on site, the condition of the habitat, impacts to the Plummer's mariposa lily would not significantly add to the cumulative impacts to this species.

The City of San Dimas and other foothill communities support a number of wildlife movement corridors. While the area is increasingly urbanized, which could restrict wildlife movement, the project falls within an area that is already developed on three sides. Implementation of this project would limit wildlife movement within the boundary of the property, but would not cut off linkages to other open space or conservation areas. The project would therefore not result in a cumulative considerable impact on wildlife corridors.

Implementation of the project would impact 6.31 acres of state-regulated streambeds including state wetlands of which a portion is also federally regulated waters. Impacts to ACOE jurisdiction requires a Section 404 permit from the ACOE. In addition, impacts to ACOE jurisdiction requires a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB). Impacts to CDFG jurisdiction requires a Section 1602 Streambed Alteration Agreement. When considered in conjunction with impacts to jurisdictional waters and wetlands in the region, impacts would be regarded as cumulative considerable. The ACOE and CDFG require a no-net loss of jurisdictional waters and wetlands. Mitigation would include full replacement. The RWQCB requires the prevention of water contamination caused by development through the development of water quality basins. Any project that impacts a jurisdictional area would be required to comply with these and other ACOE, CDFG and RWQCB requirements. With required regulatory compliance the project's cumulative impact would be reduced to below a level of significance.

6.0) MITIGATION MEASURES

Mitigation measures are required to minimize impacts to native wildlife and habitats, as well as sensitive species where impacts are considered significant. The mitigation measures are outlined here, however specific details will be presented in a Mitigation Monitoring and Reporting Plan (MMRP) that will be developed as a part of the permitting process in consultation with local, state and federal agencies.

The initial mitigation measures listed under each section are taken from the San Dimas Northern Foothills Biological Technical report and NFIP EIR. These measures were developed on a large scale and where appropriate or where additional project specific information is now available, those mitigation measures have been added to or modified based on the specifics of the project and would be further refined in the MMRP.

The project proponent will be responsible for the successful completion of the mitigation measures. The project proponent, its designee, the HOA, an approved conservation agency or other agency approved entity will be responsible for the long term care and conservation of any land used for mitigation on-site. Mitigation will occur concurrent with the initial clearing and grubbing of the site.

6.1) Coastal Sage Scrub

Approximately 6.25 acres of coastal sage scrub is within the grading limits and 2.31 acres fall within the Fuel Modification Zone. An additional 31.11 acres of coastal sage scrub mixed communities is within the grading limits and 9.76 acres within the Fuel Modification Zone. Impacts to this community are considered significant by local state and federal agencies. Mitigation for impacts to coastal sage scrub was previously outlined in the Northern Foothills Implementation Program EIR (RBF, 1999) under BIO4 and is outlined below.

Mitigation

BIOS 4. (NFIP EIR, 1999) To mitigate for impacts to coastal sage scrub, the following measure shall be incorporated into any future development projects that include the removal of coastal sage scrub habitat types.

- A. All cut and fill slopes, other areas disturbed by construction activities, and additional areas supporting non-native vegetation, shall be reseeded with coastal sage scrub plant species. Revegetation shall occur at a ration of 2:1. That is, for every acre of coastal sage scrub removed, two acres of habitat shall be replaced. Revegetation shall be implemented in stages. The initial stage shall begin during site grubbing and shall consist of crushing/mulching scrub, within areas to be graded, with a dozer. The

crushed/mulched material along with the top four to six inches (10 to 15 cm) of topsoil shall then be removed in one operation with a loader or dozer and stockpiled nearby as directed by the project biologist. Soil stockpiles shall be stored at depths no greater than seven feet (2m) until revegetation sites are prepared and shall be maintained free of contamination (storage depths may require adjustment based upon length of storage). Stockpiles shall be stored no longer than six months. Once a restoration site is prepared (roughened by sheep's foot or similar equipment) the stockpiled soil shall be spread to a depth of approximately one foot (30cm). Appropriate scrub container stock shall be incorporated into the revegetation areas as outlined in the detailed mitigation/restoration plan to be developed by the project biologist. In addition, container stock consisting of native bunchgrasses shall be incorporated into the planting. The redistributed material, along with the container stock, shall be watered by a temporary irrigation system until established, as determined by the project biologist.

- B. Crushed plant material and soil to be stockpiled shall be obtained from various locations on-site. Areas to be revegetated shall be determined by the project biologist based upon such factors as the configuration of the cut and/or fill slopes and proximity to areas of intact scrub communities.
- C. The timing of the stockpiling of plant material and topsoil shall be dictated by the grading/construction schedule. Reintroduction of stockpiled material to revegetation sites shall be conducted between September 1 and November 30. Container stock shall be planted during the same time period.
- D. For each development area, performance standards shall be developed and apply for the revegetation of coastal sage scrub. Generally these standards include 75 percent coverage by redistributed vegetative materials, seeded species, and container stock (whichever of the three or combination is used) at the end of five years. In addition, if a 50 percent survival has not been achieved, replanting with appropriate size container stock necessary to achieve this standard shall be performed.
- E. Monitoring of the revegetation areas shall be conducted for five (5) years to ensure successful colonization of the restored areas by scrub species. If success standards are not met, remedial measures, including hand seeding, hydroseeding, or introduction of additional container stock shall be implemented as directed by the City and the project biologist.

Site Specific Additional or Modified Mitigation Measures:

Measures to be modified in the mitigation plan include crushing or mulching of plant materials and other site preparation activities that are necessary to prevent the spread of weedy invasive species into the revegetation areas. Crushing and mulching of plant communities with greater than 10% weedy annual species shall not occur and any areas/top soil suitable for crushing, mulching and transplanting will be selected by the project biologist prior to vegetation disturbance on the property.

Mitigation ratios for coastal sage shall be mitigated at a ratio of 2:1, mitigation for CSS and native species integrades (i.e. CSS/chaparral or CSS/elderberry scrub) shall occur at a 1:1 ratio and mitigation for CSS and non-native grasslands/ruderals shall occur at a .5:1 ratio. Based on the current proposed impacts, identified on Figure 11, mitigation at the ratios listed above would result in the revegetation or improvement of 56.14 acres.

CSS or CSS communities shall be mitigated through the following methods: on-site as restoration of non-native or disturbed/developed areas within avoided and preserved sections of the project, on-site as enhancement of CSS/non-native communities, off-site within approved mitigation bank(s) or off-site within other property(ies) (i.e. restoration/enhancement programs) available at the time of grading, or a combination of the above, as approved by the regulatory agencies.

Success criteria for any on-site mitigation or enhancement will be finalized in the mitigation plan after consultation with the regulatory agencies, but shall include no less than a 40% survival rate of container plants and a non-native or weedy species component of not more than 10% after 5 years as judged by data collected at permanent transect locations, and reported annually in mitigation monitoring reports. While CSS success is difficult to judge in the first 3 years due to naturally slow growth rates and success in these years is related primarily to adequate weeding programs and watering programs, reasonable progress should be reported in the forth and fifth year. Thereafter, whole year(s) will be added to the monitoring program until such time as the program meets the success criteria of 50% survival and no more than 10% weed cover.

The annual report shall include percent survival, percent cover of native and non-native species, tree height of select species, over all site condition and required corrective measures to bring the mitigation program into compliance. Corrective measures will include instructions on weeding, replacement of container materials, reseeding, increased or decreased watering and other measures as determined necessary by the project biologist.

Selection of specific on or off-site mitigation locations will be based on an analysis of the availability of space, water, and accessibility as well as appropriate soils and topography. Mitigation for CSS will not be placed in areas which are so remote or topographically challenging that maintenance crews cannot reasonably access the area and or provide for the stated success criteria. The final decision for the placement of mitigation (on or off-site) will be made by the project biologist in consultation with the project applicant and appropriate agency(ies) and will be based on a reasonable expectation of success, but in no event will the ratios fall below those ratios stated above.

6.2) Mature Significant Trees

During the survey and analysis it was determined that an estimated 430 trees may be impacted within the development area, out of a total of approximately 4000. Of the trees that met the City of San Dimas definition of "mature significant tree" 363 are native species; 220 coast live oak, 138 walnut, 5 sycamore. Mitigation is not typically required for the removal of *Eucalyptus* trees although in some instances is required by state and federal agencies.

Mitigation

Mitigation was previously outlined in the Northern Foothills Implementation Program EIR (RBF, 1999) under BIO3. and is as follows:

BIO3. In addition, the native trees within the potential development areas may also fall under the jurisdiction of the City of San Dimas Tree Ordinance. A detailed tree survey shall be completed in the impact areas prior to implementation of future development projects in the

potential development areas. The tree replacement shall consist of a minimum of two 15-gallon native tree specimens for each removal, unless approved otherwise by the City of San Dimas. Native tree mitigation programs shall include:

- A. A minimum of two 15-gallon native trees shall be planted on-site as replacement for one tree removed.
- B. The Landscape Architect/designer for the project shall design replacement trees into landscape plans and shall be subject to review by the City of San Dimas.
- C. Planting specification shall consider the following:
 - The newly planted trees shall be planted high, as much as $\frac{3}{4}$ above the new adjacent grade.
 - Amending the backfill soil with wood shavings, etc. However, it is not recommended when existing soil is high in natural organic matter with a sandy loam texture.
 - In regards to the need of planting amendments and drainage systems, recommendations shall be based on soil tests of this project and approved by the City.
- D. Any City approved work within the driplines of saved trees, including branch removal, shall be under the inspection of a qualified arborist.
- E. Copies of the "Tree Report", the "Tree Ordinance" and the "City approved Grading Plans" shall be maintained on-site during all site construction.

**In addition, impacts made as a result of Fuel Modification will be addressed in the Mitigation Plan.

Site Specific Additional or Modified Mitigation Measures:

Mature trees shall be mitigated on-site according to the Mitigation Plan. Soil amendments and planting heights shall be determined by the project biologist according to the best information available and will consider site specific information and conditions.

Mitigation ratios for mature and significant trees shall occur on a 2:1 basis, within landscaped areas of the project, within avoided open space areas where natural water is available or within preserved mitigation areas for impacts to jurisdictional drainages.

Impacts to mature trees shall be monitored by the project biologist and shall be counted and compared to the pre-project tree inventory. The project biologist will verify the number of replacement trees and this number will be reported in a mitigation monitoring report.

The success criteria will be fully developed in the mitigation monitoring plan, but will include survival standards of not less than 50% after 5 years and not more than a 10% weedy species cover in the mitigation/landscape areas.

Annual reports will include percent survival, percent cover of non-native species, tree height and health, over all site condition and required corrective measures to bring the mitigation program into compliance. Corrective measures will include recommendations for replacement, increase or decrease in watering schedules or adjustment in location(s), etc., as necessary.

6.3) Jurisdictional Impacts

Mitigation for impacts to state and federal jurisdictional waters (approximately 6.31 acres) will be negotiated based on quality of habitat and extent of impacts as a part of the ACOE 404, RWQCB 401 and CDFG 1603 permit process.

Mitigation

Mitigation was previously outlined in the Northern Foothills Implementation Program EIR (RBF, 1999) under BIO2 and is as follows:

Impacts on wetlands and/or riparian habitats shall be mitigated as part of the mitigation required for any CDFG Section 1600 Streambed Alteration Agreement and/or ACOE Permit that may be processed for future development projects. As Part of the permit/agreement, a conceptual streambed/riparian related mitigation plan would need to be developed. The objective of the mitigation is to ensure no net loss of habitat values from projects. The mixed willow riparian forest and coast live oak riparian forest are vegetation types that would be impacted by future development projects within the project area and shall require permitting. The mitigation plan shall include the following elements:

- A. Responsibilities and qualifications of the personnel to implement/supervise the plan;
- B. Plant material and seed mixes;
- C. Site preparation and planting implementation;
- D. Performance criteria;
- E. Monitoring and maintenance plan;
- F. Long-term preservation of the site;
- G. Agency coordination; and
- H. Construction document preparation.

Site Specific Additional or Modified Mitigation Measures:

Ratios for wetland/riparian jurisdictional drainages shall occur at a 2:1 ratio as measured from streambed top of bank to opposite top of bank, or bed and bank to bed and bank. Riparian or wetland trees shall be mitigated on a 2:1 ratio under the mature the significant tree mitigation program as discussed above. Unvegetated or upland vegetated drainages shall be mitigated at a 1:1 basis and temporary drainage impacts shall be mitigated at a 0.5:1 ratio.

Mitigation for all jurisdictional drainages/streambeds and "waters of the U.S." may occur on-site as restoration within avoided and preserved areas of the project, on-site as enhancement of native communities, off-site within approved mitigation bank(s) or off-site within other property(ies) (i.e. restoration/enhancement programs) available at the time of grading, or a combination of the above, as approved by the regulatory agencies.

Success criteria for any on-site mitigation or enhancement will be finalized in the mitigation plan after consultation with the regulatory agencies but shall include no less than a 40% survival rate of container plants and a non-native or weedy species component of not more than 10% after 5 years as judged by data collected at permanent transect locations, and reported annually in mitigation monitoring reports. While native tree success is difficult to judge in the first 3 years due to naturally slow growth rates and success in these years is related primarily to adequate weeding and watering programs, reasonable progress should be reported in the fourth and fifth year. Thereafter, whole year(s) will be added to the monitoring program until such time as the program meets the success criteria of 50% survival and no more than 10% weed cover.

The annual reports shall include, percent survival, percent cover of native and non-native species, tree height of select species, over all site condition and required corrective measures to bring the mitigation program into compliance. Corrective measures will include instructions on weeding, replacement of container materials, reseeding, increased or decreased watering and other measures as determined necessary by the project biologist.

Selection of on or off-site mitigation sites will be based on an analysis of the availability of space, water and accessibility as well as appropriate soils and topography. Mitigation for jurisdictional drainages will not be placed in areas which are so remote or topographically challenging that maintenance crews can not reasonably access the area and/or provide for the stated success criteria. The final decision for the placement of mitigation (on or off-site) will be made by the project biologist in consultation with the project applicant and appropriate agency(ies) and will be based on a reasonable expectation of success, but in no even will the ratios fall below those ratios stated above.

Invasive species will be removed from the drainage areas including any Eucalyptus or Pepper tree species that is within a drainage system or that is in an area tributary to a drainage.

6.4) Raptor Nesting

During the survey and analysis it was determined that at least one active raptor nest was present in the survey area, one abandoned nest was identified and several raptor/migratory bird species have the potential to nest in the survey area. In order to avoid impacts, the following is recommended.

Mitigation

- A. Construction will avoid the Raptor Nesting Season (February 1 through August 31) in order to avoid impacts to nesting raptors.
- B. If construction can not be avoided in the Raptor Nesting Season, a pre-construction survey (72 hours before start of construction) for nesting raptors should be conducted prior to any site disturbance or vegetation removal on the property.
- C. A preconstruction Clearance Survey for Burrowing Owl, a frequent year round resident will be required prior to construction.
- D. If nesting raptors (or any migratory bird regulated under the Migratory Bird Act) are present within or immediately adjacent to the project footprint, avoidance of nests/shrubs/trees/area including a suitable buffer (300 – 500lf for raptors, 25 – 500lf

for other species as determined by the project biologist) will be required until such time as the project biologist has verified that the young have fledged or the nest has otherwise become inactive.

6.5) Thread-leaved Brodiaea

During the survey and analysis no thread-leaved brodiaea were observed within the survey area and no TLB were observed within the development area over two years. Critical habitat for this species does occur in the survey area and as currently mapped, it does occur within the development area. The primary constituent elements for this species including the presence of clay soils, or, as on this property, clay lenses within loamy soils, open native or annual grassland within CSS or CSS/chaparral, gentle to moderate slopes, elevations between 100 and 2500 feet asl., an intact surface and subsurface not permanently altered and access to suitable light, water and air, do occur within the portion of the critical habitat proposed for impacts.

Mitigation

- A. A minimum of informal consultation with the USFWS and the CDFG on the issue of critical habitat will occur. If determined by the agencies that impacts will not threaten the long-term survivability of the species no further mitigation would be required. If determined by the agencies that impacts will threaten the long-term survivability of the species avoidance to the extent possible would be required.
- B. If thread-leaved brodiaea is observed within the development area prior to development mitigation would consist of either the purchase of land in an approved mitigation bank or a plan would be developed in conjunction with the agencies to relocate the plants and soils to a portion of the preserved project area with adequate light and water and suitable vegetation. Relocation would occur either on a large or small scale dependant upon the population, but would include a minimum of 12 inches of soil both in depth and a 12 inch surface radius from the plants to provide the necessary soils for the survival and perpetuation of this species.

6.6) General Minimization Measures

The following measures will reduce potential direct and indirect impacts to the natural resources on the Brasada Project.

- Prior to construction activities, work areas shall be fenced with highly visible fencing (e.g., orange construction fencing) to ensure impacts do not occur outside of the project footprint. Fencing locations shall be approved by a qualified biologist and verified in the field.
- In the event that a fully protected species is found to be nesting on the site, all work in the area will stop and a consultation with the appropriate regulatory agencies shall occur. This consultation will result in mitigation measures that will include temporary avoidance of the occupied area, a buffer zone of 300 to 500 lf until such time as the nest is no longer active and passive relocation (removal of the tree and nest after abandoned), avoidance of the

nest and permanent preservation of the area, or development of an approved alternate nesting site (after the nest is no longer active).

- The project biologists will conduct a preconstruction education program to be held on-site, prior to the beginning of any vegetation or earth disturbing activities. This education program shall be designed to acquaint project construction personnel and equipment operators with the natural resources in the area and to inform them of the need to comply with avoidance and minimization measures.
- Signage will be placed at the employee parking area, at the equipment office and staging area and at other points of high visibility instructing construction personnel to remain within the fenced project footprint, to park in designated areas and not to enter the avoided or surrounding natural vegetation areas for rest or lunch periods.
- Staging areas shall be placed in unvegetated areas within the project footprint. Staging areas will be placed in such a way as to prevent contaminated runoff into waters of the U.S.
- Employee parking and rest / lunch and break periods will occur in designated locations within the project footprint. No take of additional habitat or communities will occur for these purposes.
- A biological mitigation monitor will be present during vegetation clearing and installation of the construction fencing to insure proper placement and compliance with conditions of approval and the regulatory permits for the project. A mitigation monitor will make periodic visits to the project during the entire construction program to insure that the avoidance minimization measures maintained and in compliance. Monthly, Quarterly and Annual reports will be issued to the project proponent indicating compliance and will be compiled into a final report at the end of the earth moving phase of the construction program.
- Proper use and disposal of oil, gasoline, diesel fuel, antifreeze and other toxic substances will be enforced.
- All heavy equipment will be washed prior to bringing it onto the project site.
- All refuse created or brought on-site by construction personnel or contractors must be placed in covered containers, removed from the site daily and disposed of at an appropriate landfill.
- The project proponent shall employ all standard best management practices to ensure that toxic materials, silt, debris, or excessive erosion do not enter waters of the U.S. during project construction. The use of silt fence and other measures will be required adjacent to any protected (jurisdictional) drainage.
- Active construction areas will be watered as needed to control dust and minimize effects to adjacent habitat.
- No unauthorized activity will occur in drainages.

7.0) REFERENCES

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APPENDIX A

Table 14. List of plant and wildlife species identified on the site.

This list represents plant species [N=184] detected in the survey area during a general biological, focused botanical study and a focused coastal California gnatcatcher survey conducted from March through August 2010. Additional plant identifications were made during botanical investigations conducted on the site by Guy Bruyey in 2009. Based on terrain, precipitation patterns, and other factors, not all plants (especially annual species) that may be present on-site were necessarily observable (or identified) during this study. For an exhaustive botanical assessment, surveys are required throughout the year over multiple years to achieve thorough plant inventories. Plants were identified using keys, descriptions, and illustrations in Abrams (1923-1960), Hickman (1993), Munz (1974), and Parker (1999). Plant taxonomy and nomenclature generally follows Hickman. Wildlife species [N=103] detected in the survey area are for March through August 2010 diurnal surveys only. Additional wildlife identifications were made during botanical investigations conducted on the site by Guy Bruyey in 2009.

A single asterisk (*) indicates non-native (alien) plant taxa and a double asterisk (**) indicates sensitive species.

<u>Scientific Name</u>	<u>Plants</u>	<u>Common Name</u>
Alliaceae <i>Allium praecox</i>		Onion Family Early Onion
Amaranthaceae <i>Amaranthus albus</i> <i>Amaranthus palmeri</i> (2009)		Pigweed Family Pigweed Palmer's Pigweed
Anacardiaceae <i>Malosma laurina</i> <i>Rhus integrifolia</i> <i>Schinus molle</i> <i>Schinus teribenthifolius</i> <i>Toxicodendron diversilobum</i>		Sumac Family Laurel Sumac Lemonadeberry California Pepper* Brazilian Pepper* Poison Oak
Apiaceae <i>Anthriscus caucalis</i> <i>Conium maculatum</i> <i>Sanicula bipinnatifida</i>		Carrot Family Bur-chervil* Poison Hemlock* Purple Sanicle
Apocynaceae <i>Asclepias eriocarpa</i> <i>Funastrum cynanchoides var. hartwegii</i> <i>Nerium oleander</i> <i>Vinca major</i>		Oleander Family Indian Milkweed Climbing Milkweed Oleander* Periwinkle*

Appendix A Table 14 (plants) – continued

Scientific Name

Common Name

Areaceae

Washingtonia robusta

Palm Family

Mexican Fan Palm*

Asteraceae

Achillea millefolium

Acourtia microcephala

Ambrosia psilostachya

Artemisia californica

Artemisia douglasiana

Baccharis salicifolia

Brickellia californica

Centaurea melitensis

Carduus pycnocephalus

Chamomilla suaveolens

Cirsium occidentale

Cirsium vulgare

Conyza canadensis

Erigeron species (foliosus?)

Eriophyllum confertiflorum

Gnaphalium californicum

Gnaphalium luteo-album

Hazardia squarrosa

Helianthus annuus

Hemizonia fasciculata

Heterotheca grandiflora

Hypochaeris glabra

Lactuca serriola

Lessingia filaginifolia

Malacothrix saxatilis

Rafinesquia californica

Silybum marianum

Sonchus asper

Sonchus oleraceus

Taraxacum officinale

Tetradymia comosa

Uropappus lindleyi

Xanthium species

Sunflower Family

California Yarrow

Perezia

Western Ragweed

California Sagebrush

Mugwort

Mulefat

California Brikellbush

Tocalote*

Italian Thistle*

Pineapple Weed*

Western Thistle

Bull Thistle

Horseweed

Fleabane Aster

Golden Yarrow

California Everlasting

Everlasting Cudweed

Sawtooth Goldenbush

Annual Sunflower

Slender Tarweed

Telegraph Weed

Smooth Cat's Ear*

Prickly-lettuce*

Cudweed Aster

Cliff Malacothrix

California Chicory

Milk Thistle*

Prickly Sow-thistle*

Sow-thistle*

Common Dandelion*

Cotton-thorn

Silver Puffs

Cocklebur

Boraginaceae

Amsinckia menziesii var. *intermedia*

Amsinckia menziesii var. *menziesii*

Cryptantha intermedia

Pectocarya linearis

Phacelia ramosissima

Phacelia distans

Phacelia cicutaria

Pholistoma auritum

Plagiobothrys sp.

Borage Family

Fiddleneck

Small-flowered Fiddleneck

White Forget-Me-Not

Slender Pectocarya

Branching Phacelia

Common Phacelia

Caterpillar Phacelia

Fiesta Flower

Popcorn Flower

Appendix A Table 14 (plants) – continued

Scientific Name

Common Name

Brassicaceae

Brassica nigra
Hirschfeldia incana
Lepidium virginicum
Raphinus sativus
Sisymbrium irio
Sisymbrium sp.

Mustard Family

Black Mustard*
Short-pod Mustard*
Peppergrass
Wild Radish*
London Rocket*
Mustard*

Cactaceae

Opuntia littoralis
Opuntia occidentalis

Cactus Family

Coast Prickly-pear
Prickly-pear Cactus

Caprifoliaceae

Lonicera subspicata
Sambucus mexicana

Honeysuckle Family

Southern Honeysuckle
Blue Elderberry

Caryophyllaceae

Silene gallica
Stellaria media

Pink Family

Windmill Pink*
Common Chickweed*

Chenopodiaceae

Atriplex simibacatta
Chenopodium album
Salsola tragus

Goosefoot Family

Australian Saltbush
Lamb's Quarters*
Russian Thistle*

Convolvulaceae

Calystegia macrostegia
Convolvulus arvensis
Cuscuta californica

Mourning-Glory Family

Morning Glory
Bindweed*
California Dodder

Crassulaceae

Crassula connata
Dudleya lanceolata

Stonecrop Family

Pygmy Stonecrop
Lanceleaf Dudleya

Cucurbitaceae

Cucurbita foetidissima
Marah macrocarpus

Gourd Family

Calabazilla
Wild-cucumber

Cyperaceae

Cyperus eragostris

Sedge Family

Tall Flatsedge

Euphorbiaceae

Chamaesyce albomarginata
Eremocarpus setigerus
Euphorbia crenulata
Euphorbia species
Ricinus communis

Spurge Family

Rattlesnake Weed
Doveweed
Chinese Caps
Ground Spurge*
Castor Bean*

Appendix A Table 14 (plants) – continued

<u>Scientific Name</u>	<u>Common Name</u>
Fabaceae	Pea Family
<i>Lotus scoparius</i>	Deerweed
<i>Lotus purshianus</i>	Indian Clover*
<i>Lupinus succulentus</i>	Foothill Lupine
<i>Lupinus bicolor</i>	Miniature Lupine
<i>Medicago polymorpha</i>	Burclover*
<i>Melilotus indicus</i>	Sourclover*
<i>Parkinsonia</i> sp.	Palo Verde*
<i>Pickeringia montana</i>	Chaparral Pea
<i>Vicia villosa</i>	Winter Vetch*
Fagaceae	Oak Family
<i>Quercus agrifolia</i>	Coast Live Oak
<i>Quercus berberidifolia</i>	Scrub Oak
Geraniaceae	Geranium Family
<i>Erodium botrys</i>	Long-beaked Storksbill*
<i>Erodium brachycarpum</i>	Storksbill*
<i>Erodium cicutarium</i>	Red-stemmed Filaree*
Grossulariaceae	Gooseberry Family
<i>Ribes aureum</i>	Golden Currant
Iridiaceae	Iris Family
<i>Sisyrinchium bellum</i>	Blue-eyed Grass
Juglandaceae	Walnut Family
<i>Juglans californica</i>	California Black Walnut**
Lamiaceae	Mint Family
<i>Marrubium vulgare</i>	Horehound*
<i>Salvia apiana</i>	White Sage
<i>Salvia mellifera</i>	Black Sage
Liliaceae	Lily Family
<i>Calochortus plummerae</i>	Plummer's Mariposa Lily**
<i>Calochortus splendens</i>	Lilac Mariposa Lily
<i>Chlorogalum pomeridianum</i>	Soap Plant
<i>Dichelostemma capitatum</i> (2009)	Wild Hyacinth
<i>Yucca whipplei</i>	Chaparral Yucca
Malvaceae	Mallow Family
<i>Malacothamnus fasciculatus</i>	Bush Mallow
<i>Malva parviflora</i>	Cheeseweed*
Mimosaceae	Mimosa Family
<i>Albizia julibrissin</i>	Mimosa Tree*

Appendix A Table 14 (plants) – continued

<u>Scientific Name</u>	<u>Common Name</u>
Moraceae <i>Morus</i> sp.	Mulberry Family Mulberry*
Myrtaceae <i>Eucalyptus</i> sp.	Myrtle Family Eucalyptus*
Nyctaginaceae <i>Mirabilis californica</i>	Four O’Clock Family Wishbone Bush
Oleaceae <i>Olea europea</i> <i>Fraxinus</i> sp. <i>Ligustrum</i> species	Olive Family Olive* Ash* Privet*
Onagraceae <i>Clarkia purpurea</i> <i>Clarkia bottae</i> <i>Epilobium cannum</i>	Evening Primrose Family Purple Clarkia Farewell-to-Spring California Fuchsia
Oxalidaceae <i>Oxalis californica</i>	Wood-Sorrell Family Wild Oxalis
Papaveraceae <i>Eschscholzia californica</i>	Poppy Family California Poppy
Pinaceae <i>Pinus</i> sp.	Pine Family Unidentified Pine*
Plantaginaceae <i>Plantago erecta</i> <i>Plantago lanceolata</i>	Plantain Family Dot-seed Plantain English Plantain*
Plantanaceae <i>Platanus racemosa</i>	Sycamore Family Western Sycamore
Poaceae <i>Avena barbata</i> <i>Avena fatua</i> <i>Bromus diandrus</i> <i>Bromus hordeaceus</i> <i>Bromus madritensis</i> ssp. <i>rubens</i> <i>Cynodon dactylon</i> <i>Digitaria sanguinalis</i> <i>Hordeum</i> species <i>Lamarckia aurea</i> <i>Leptochloa univerva</i>	Grass Family Slender Wild Oat* Common Wild Oat* Ripgut* Soft Chess* Foxtail Chess* Bermuda Grass* Large Crabgrass* Barley* Goldentop Spangletop*

Appendix A Table 14 (plants) – continued

Scientific Name

Common Name

Poaceae (continued)

Grass Family

Leymus condensatus
Lolium multiflorum
Nasella lepida
Phalaris minor
Schismus barbatus
Triticum aestivum
Vulpia myuros
Vulpia octoflora

Giant Wild Rye
Italian Ryegrass*
Foothill Needlegrass
Dwarf Canary Grass
Mediterranean Grass
Wheat*
Annual Fescue*
Six-week Fescue

Polygonaceae

Buckwheat Family

Eriogonum elongatum
Eriogonum fasciculatum var. *polifolium*
Polygonum aviculare
Rumex crispus

Long stemmed Buckwheat
California Buckwheat
Knotweed*
Curly Dock*

Polypodiaceae

Polypody Family

Polypodium californicum

California Polypody

Portulacaceae

Purslane Family

Claytonia perfoliata

Miner's Lettuce

Primulaeae

Primrose Family

Anagallis arvensis

Scarlet Pimpernel*

Ranunculaceae

Buttercup Family

Clematis pauciflora
Delphinium cardinale

Small-leaved Virgin's Bower
Scarlet Larkspur

Rhamnaceae

Buckthorn Family

Frangula californica
Rhamnus ilicifolia
Rhamnus crocea
Ceanothus crassifolius

Coffeeberry
Hollyleaf Redberry
Spiny Redberry
Hoaryleaf Ceanothus

Rosaceae

Rose Family

Adenostoma fasciculatum
Heteromeles arbutifolia
Prunus ilicifolia
Prunus species

Chamise
Toyon
Hollyleaf Cherry
Fruit Tree*

Rubiaceae

Madder Family

Galium angustifolium
Galium aparine

Narrow-leaved Bedstraw
Annual Bedstraw*

Appendix A Table 14 (plants) – continued

<u>Scientific Name</u>	<u>Common Name</u>
Rutaceae <i>Citrus</i> species	Citrus Family Grapefruit*
Salicaceae <i>Salix</i> sp.	Willow Family Unidentified Willow
Scrophulariaceae <i>Keckiella cordifolia</i> <i>Mimulus aurantiacus</i> <i>Scrophularia californica</i> <i>Verbascum</i> species	Figwort Family Heartleaf Penstemon Sticky Monkey Flower Coast Figwort Mullein
Selaginellaceae <i>Selaginella bigelovii</i>	Spike Moss Family Spike-Moss
Solanaceae <i>Datura wrightii</i> <i>Nicotiana glauca</i> <i>Solanum douglassii</i>	Nightshade Family Western Jimsonweed Tobacco Tree* White Nightshade
Themidaceae <i>Dichelostemma capitatum</i>	Brodiaea Family Wild Hyacinth
Ulmaceae <i>Ulmus</i> species	Elm Family Elm*
Urticaceae <i>Hesperocnide tenella</i> <i>Urtica dioica</i> ssp. <i>holosericea</i> <i>Urtica urens</i>	Nettle Family Black-hair Nettle Stinging Nettle Dwarf Nettle*
Viscaceae <i>Phoradendron</i> species	Mistletoe Family Mistletoe (on Sycamore)
Zygophyllaceae <i>Tribulus terrestris</i>	Caltrop Family Puncture Vine*
Birds [N=64]	
Accipitridae <i>Accipiter cooperii</i> <i>Buteo jamaicensis</i> <i>Buteo lineatus</i> <i>Circus cyaneus</i>	Hawk Family Cooper's Hawk** Red-tail Hawk Red-shouldered Hawk Northern Harrier**

Appendix A Table 14 (wildlife) – continued

<u>Scientific Name</u>	<u>Common Name</u>
Aegithalidae <i>Psaltriparus minimus</i>	Long-tailed Tit Family Bushtit
Alaudidae <i>Eremophila alpestris</i>	Lark Family Horned Lark**
Anatidae <i>Anas platyrhynchos</i>	Ducks, Geese, Swan Family Mallard
Apodidae <i>Aeronautes saxatalis</i>	Swift Family White-Throated Swift
Bombycillidae <i>Phainopepla nitens</i>	Waxwing Family Phainopepla
Cardinalidae <i>Guiraca caerulea</i> (2009) <i>Pheuclicus melanocephalus</i>	Cardinal Family Blue Grosbeak Black-headed Grosbeak
Cathartidae <i>Cathartes aura</i>	Vulture Family Turkey Vulture
Charadriidae <i>Charadrius vociferus</i>	Plover Family Killdeer
Columbidae <i>Columba livia</i> <i>Columba fasciata</i> <i>Zenaida macroura</i>	Pigeon Family Rock Dove (Feral Pigeon) Band-tailed Pigeon Mourning Dove
Corvidae <i>Corvus brachyrhynchos</i> <i>Corvus corax</i> <i>Aphelocoma californica</i>	Jay and Crow Family American Crow Common Raven Western Scrub Jay
Cuculidae <i>Geococcyx californianus</i>	Cuckoo Family Greater Roadrunner
Emberizidae <i>Chondestes grammacus</i> <i>Junco hyemalis</i> <i>Melospiza melodia</i> <i>Pipilo crissalis</i> <i>Pipilo maculatus</i> <i>Spizella atrogularis</i> <i>Zonotrichia leucophrys</i>	Emberizine Sparrow Family Lark Sparrow Dark-eyed Junco Song Sparrow California Towhee Spotted Towhee Black-chinned Sparrow White-crowned Sparrow

Appendix A Table 14 (birds) – continued

<u>Scientific Name</u>	<u>Common Name</u>
Falconidae <i>Falco sparverius</i> (2009)	Falcon Family American Kestrel
Fringillidae <i>Carduelis psaltria</i> <i>Carpodacus mexicanus frontalis</i>	Finch Family Lesser Goldfinch House Finch
Hirundinidae <i>Hirundo rustica</i> <i>Petrochelidon pyrrhonota tachina</i> <i>Stelgidopteryx serripennis</i>	Swallow Family Barn Swallow Cliff Swallow N. Rough-winged Swallow
Icteridae <i>Euphagus cyanocephalus</i> <i>Icterus bullockii parvus</i> <i>Sturnella neglecta</i>	Icterid Family Brewer's Blackbird Bullock's Oriole Western Meadowlark
Laniidae <i>Lanius ludovicianus</i> (2009)	Shrike Family Loggerhead Shrike**
Mimidae <i>Mimus polyglottos polyglottos</i> <i>Toxostoma redivivum redivivum</i>	Mockingbird Family Northern Mockingbird California Thrasher
Odontophoridae <i>Callipepla californica californica</i>	Quail Family California Quail
Paridae <i>Baeolophus inornatus</i>	Titmouse Family Oak Titmouse
Parulidae <i>Dendroica coronata</i> <i>Geothlypis trichas</i> <i>Wilsonia pusilla</i>	Wood Warbler Family Yellow-rumped Warbler Common Yellowthroat Wilson's Warbler
Passeridae <i>Passer domesticus</i>	Old World Sparrow Family House Sparrow
Picidae <i>Colaptes auratus</i> <i>Melanerpes formicivorus</i> <i>Picoides nuttallii</i>	Woodpecker Family Northern Flicker Acorn Woodpecker Nuttall's Woodpecker
Strigidae <i>Bubo virginianus</i>	Typical Owl Family Great Horned Owl

Appendix A Table 14 (birds) – continued

Scientific Name

Common Name

Sturnidae

Sturnus vulgaris

Starling Family

European Starling

Sylviidae

Poliophtila caerulea

Gnatcatcher Family

Blue-gray Gnatcatcher

Timaliidae

Chamaea fasciata

Babbler Family

Wrentit

Trochilidae

Calypte anna

Calypte costae

Selasphorus rufus

Hummingbird Family

Anna's Hummingbird

Costa's Hummingbird

Rufous Hummingbird

Troglodytidae

Campylorhynchus brunneicapillus

Thryomanes bewickii

Troglodytes aedon

Wren Family

Cactus Wren**

Bewick's Wren

House Wren

Turdidae

Sialia mexicana

Thrush Family

Western Bluebird

Tyrannidae

Myiarchus cinerascens

Sayornis nigricans

Sayornis saya

Tyrannus verticalis

Tyrant Flycatchers

Ash-throated Flycatcher

Black Phoebe

Say's Phoebe

Western Kingbird

Tytonidae

Tyto alba

Barn Owl Family

Barn Owl

Mammals [N=7]

Canidae

Canis latrans

Urocyon cinereoargenteus (2009)

Dog, Fox, & Coyote Family

Coyote

Gray Fox

Cervidae

Odocoileus hemionus

Deer Family

Mule Deer

Geomyidae

Thomomys bottae

Pocket Gopher Family

Botta's Pocket Gopher

Leporidae

Lepus californicus

Sylvilagus audubonii

Rabbit Family

Black-tailed Jackrabbit**

Desert Cottontail

Appendix A Table 14 (wildlife) – continued

Scientific Name

Common Name

Sciuridae

Spermophilus beecheyi

Squirrel Family

California Ground Squirrel

Reptiles & Amphibians [N=7]

Anguidae

Elgaria multicarinata

Anguid Lizards

Alligator Lizard

Colubridae

Masticophis lateralis

Pituophis catenifer

Colubrid Snake Family

California Whipsnake

Gopher Snake

Hylidae

Pseudacris regilla

Treefrog Family

Pacific Chorus Frog

Iguanidae

Uta stansburiana

Sceloporus occidentalis

Iguanid Family

Side-blotched Lizard

Western Fence Lizard

Viperidae

Crotalus oreganus helleri

Viper Family

Southern Pacific Rattlesnake

Lepidoptera: Butterflies [N=25]

Papilionidae

Papilio zelicaon

Papilio rutulus

Papilio eurymedon

Swallowtails

Anise Swallowtail

Western Tiger Swallowtail

Pale Swallowtail

Nymphalidae

Adelpha bredowii californica

Charidryas gabbii

Nymphalis antiopa

Vanessa atalanta

Vanessa cardui

Vanessa annabella

Brush-footed Butterflies

California Sister

Gabb's Checkerspot

Mourning Cloak

Red Admiral

Painted Lady

West Coast Lady

Riodinidae

Apodemia mormo virgulti

Metalmarks

Behr's Metalmark

Lycaenidae

Brephidium exilis

Callophrys perplexa

Icaricia acmon

Blue, Hairstreaks, Coppers

Pygmy Blue

Bramble Hairstreak

Acmon Blue

Appendix A Table 14 (wildlife) – continued

Scientific Name

Common Name

Lycaenidae (continued)

Blue, Hairstreaks, Coppers

Icaricia lupini
Euphilotes battoides bernardino
Glaucopsyche lygdamus australis
Leptotes marina
Strymon melinus

Lupine Blue
Bernardino Blue
Southern Blue
Marine Blue
Common Hairstreak

Pieridae

Whites and Sulfurs

Colias eurytheme
Anthocharis sara
Pontia protodice
Artogeia rapae

Alfalfa Sulfur
Sara Orange-tip
Checkered White
Cabbage White

Hesperiidae

Skippers

Hylephila phyleus
Erynnis funeralis
Erynnis tristis

Fiery Skipper
Funereal Duskywing
Mournful Duskywing

Table 15. GPS Locations of Special Status Species

Taxon		GPS Coordinates	No
<i>Calochortus plummerae</i>	Plummer's Mariposa Lily	N 34.13636 W117.80442	2
<i>Calochortus plummerae</i>	Plummer's Mariposa Lily	N 34.13447 W117.80392	1
<i>Circus cyaneus</i>	Northern Harrier	N 34.13375 W 117.80538	
<i>Eremophila alpestris</i>	Horned Lark	N 34.13486 W 117.81057	
<i>Accipiter cooperii</i>	Cooper's Hawk	N 34.13361 W 117.80854	
<i>Campylorhynchus brunneicapillus</i>	Cactus Wren	N 34.13784 W 117.80718	
<i>Lepus californicus</i>	Black-tailed Jackrabbit*	N 34.13179 W 117.80734 N 34.13882 W 117.80920	

*Black-tailed Jackrabbit: several observations throughout site (the below are general area)

Table 16. Significant Mature Trees - identified within the planned impacts area in 2009. Most (65) *Eucalyptus* trees are not included in the table.

<u>ID #</u>	<u>Tree Species</u>	<u>Height (ft.)</u>	<u># of Trunks</u>	<u>Cumulative DBH (in.)</u>	<u>Over All Rating</u>	<u>Comments</u>
1	Coast Live Oak	35	2	40	8	
2	Coast Live Oak	30	2	65	7	
3	Coast Live Oak	30	3	48	7	
4	Coast Live Oak	35	1	40	8	
5	Coast Live Oak	30	2	36	8	
6	Coast Live Oak	35	1	45	7	
7	Coast Live Oak	35	1	11	8	
8	Coast Live Oak	25	1	36	5	
9	Coast Live Oak	35	3	60	8	
10	Coast Live Oak	5	2	40	8	
11	Coast Live Oak	20	2	40	8	
12	Coast Live Oak	25	3	35	8	
13	Coast Live Oak	35	2	36	8	
14	Coast Live Oak	20	3	40	5	
15	Coast Live Oak	35	2	36	8	
16	Coast Live Oak	30	1	28	7	
17	Coast Live Oak	35	1	30	8	
18	Coast Live Oak	15	1	20	7	
19	Coast Live Oak	25	1	18	10	
20	Coast Live Oak	40	2	60	8	
21	Coast Live Oak	40	1	28	8	
22	Coast Live Oak	35	2	54	5	
23	Coast Live Oak	20	1	26	8	
24	Coast Live Oak	25	1	13	8	
25	Coast Live Oak	30	2	45	8	
26	Coast Live Oak	35	1	44	8	
27	Coast Live Oak	40	1	40	8	
28	Coast Live Oak	45	1	40	8	
29	Coast Live Oak	35	1	20	8	
30	Coast Live Oak	30	2	36	8	
31	Coast Live Oak	35	1	20	8	
32	Coast Live Oak	30	3	48	8	
33	Coast Live Oak	20	2	36	8	
34	Coast Live Oak	30	2	36	7	
35	Coast Live Oak	25	1	6	6	
36	Coast Live Oak	25	2	42	6	
37	Coast Live Oak	30	2	50	6	
38	Coast Live Oak	15	1	10	8	
39	Coast Live Oak	25	1	25	8	
40	Coast Live Oak	30	1	40	4	
41	Coast Live Oak	30	1	40	7	
42	Coast Live Oak	25	2	30	7	
43	Coast Live Oak	30	1	25	7	
44	Coast Live Oak	25	1	16	7	
45	Coast Live Oak	25	3	48	8	
46	Coast Live Oak	30	2	60	6	
47	Coast Live Oak	45	1	30	8	
48	Coast Live Oak	25	1	25	8	
49	Coast Live Oak	18	3	58	8	

<u>ID #</u>	<u>Tree Species</u>	<u>Height (ft.)</u>	<u># of Trunks</u>	<u>Cumulative DBH (in.)</u>	<u>Over All Rating</u>	<u>Comments</u>
50	Coast Live Oak	25	2	35	8	
51	Coast Live Oak	20	1	8	6	
52	Coast Live Oak	20	1	15	6	
53	Coast Live Oak	25	3	72	6	
54	Coast Live Oak	35	4	144	6	
55	Coast Live Oak	30	2	45	8	
56	Coast Live Oak	30	2	120	7	
57	Coast Live Oak	30	4	96	7	
58	Coast Live Oak	30	3	45	8	
59	Coast Live Oak	20	1	16	8	
60	Coast Live Oak	30	1	25	8	
61	Coast Live Oak	35	1	39	7	
62	Coast Live Oak	20	1	15	7	
63	Coast Live Oak	30	1	32	7	
64	Coast Live Oak	25	1	35	7	
65	Coast Live Oak	20	2	28	8	
66	Coast Live Oak	20	2	40	8	
67	Coast Live Oak	24	2	20	8	
68	Coast Live Oak	20	2	36	6	
69	Coast Live Oak	20	2	40	8	
70	Coast Live Oak	15	2	25	8	
71	Coast Live Oak	30	2	72	8	
72	Coast Live Oak	30	3	228	8	
73	Coast Live Oak	18	4	22	6	
74	Coast Live Oak	20	4	120	8	
75	Coast Live Oak	20	1	12	8	
76	Coast Live Oak	30	1	42	8	
77	Coast Live Oak	30	2	80	8	
78	Coast Live Oak	30	2	150	4	
79	Coast Live Oak	35	1	42	8	
80	Coast Live Oak	25	1	25	8	
81	Coast Live Oak	35	1	48	8	
82	Coast Live Oak	25	2	36	8	
83	Coast Live Oak	30	1	23	8	
84	Coast Live Oak	20	1	24	8	
85	Coast Live Oak	35	2	45	8	
86	Coast Live Oak	20	3	76	7	Fallen but still growing.
87	Coast Live Oak	20	1	12	7	
88	Coast Live Oak	15	1	18	8	
89	Coast Live Oak	20	1	30	7	Leaning, almost parallel to ground. Barbed wire in trunk, big raptor nest.
90	Coast Live Oak	20	1	30	8	
91	Coast Live Oak	35	1	30	7	
92	Coast Live Oak	20	1	30	8	
93	Coast Live Oak	20	1	36	7	
94	Walnut	25	3	48	8	
95	Walnut	20	1	30	8	
96	Walnut	10	1	12	8	
97	Walnut	18	3	36	8	
98	Walnut	20	3	48	8	
99	Walnut	25	2	30	7	
100	Walnut	18	6	60	8	
101	Walnut	15	1	10	8	

<u>ID #</u>	<u>Tree Species</u>	<u>Height (ft.)</u>	<u># of Trunks</u>	<u>Cumulative DBH (in.)</u>	<u>Over All Rating</u>	<u>Comments</u>
102	Walnut	18	3	48	8	
103	Walnut	18	3	36	7	
104	Walnut	18	3	48	7	
105	Walnut	10	1	6	7	
106	Walnut	10	2	24	7	
107	Walnut	15	2	18	8	
108	Walnut	25	3	36	8	
109	Walnut	15	4	48	8	
110	Walnut	20	3	36	6	
111	Walnut	20	4	120	5	
112	Walnut	15	6	40	6	
113	Walnut	15	7	0	7	
114	Walnut	17	4	40	7	
115	Walnut	15	2	40	5	Beehive in tree, one dead trunk.
116	Walnut	15	4	48	7	
117	Walnut	12	2	30	6	
118	Walnut	15	2	40	8	
119	Walnut	30	8	60	6	Many trees, one root ball.
120	Walnut	30	4	60	8	
121	Walnut	30	3	50	7	
122	Walnut	30	3	36	8	
123	Walnut	20	1	11	6	
124	Walnut	20	1	6	4	
125	Walnut	20	5	84	7	
126	Walnut	15	2	24	7	
127	Walnut	15	2	30	8	
128	Walnut	20	3	40	7	
129	Walnut	30	3	60	7	
130	Walnut	15	3	40	8	
131	Walnut	20	3	0	5	
132	Walnut	15	2	18	8	
133	Walnut	15	3	36	8	
134	Walnut	15	1	6	8	
135	Walnut	15	4	86	8	
136	Coast Live Oak	15	1	30	8	
137	Walnut	30	3	60	6	
138	Walnut	30	3	48	8	
139	Walnut	10	1	10	8	
140	Walnut	35	2	92	6	
141	Walnut	20	2	84	7	
142	Walnut	20	3	72	6	
143	Coast Live Oak	30	1	42	7	
144	Walnut	30	3	72	7	
145	Walnut	18	3	48	7	
146	Walnut	30	26	26	6	
147	Walnut	30	3	32	6	
148	Walnut	12	1	24	8	
149	Walnut	29	1	0	5	Fallen tree with bark beetles.
150	Walnut	15	3	24	8	
151	Walnut	10	1	22	8	
152	Coast Live Oak	15	1	22	7	
153	Coast Live Oak	25	3	42	8	
154	Walnut	10	2	24	8	

<u>ID #</u>	<u>Tree Species</u>	<u>Height (ft.)</u>	<u># of Trunks</u>	<u>Cumulative DBH (in.)</u>	<u>Over All Rating</u>	<u>Comments</u>
155	Walnut	10	3	24	7	
156	Walnut	10	3	24	8	
157	Walnut	15	3	30	8	
158	Walnut	20	3	40	7	
159	Walnut	20	2	30	4	
160	Walnut	25	1	30	7	
161	Walnut	35	2	35	7	
162	Walnut	25	2	30	8	
163	Walnut	25	2	36	8	
164	Walnut	15	2	30	6	
165	Coast Live Oak	20	1	25	6	
166	Walnut	25	2	48	8	
167	Walnut	15	1	10	7	
168	Walnut	12	1	15	7	
169	Walnut	20	10	144	5	
170	Coast Live Oak	25	3	30	7	
171	Coast Live Oak	25	2	45	8	
172	Coast Live Oak	15	1	20	7	
173	Coast Live Oak	20	2	36	8	
174	Coast Live Oak	20	4	36	8	
175	Coast Live Oak	18	1	12	8	
176	Walnut	20	2	36	6	
177	Coast Live Oak	20	1	30	9	
178	Coast Live Oak	10	1	18	7	
179	Coast Live Oak					
180	Walnut	15	1	24	7	
181	Coast Live Oak	10	1	12	7	
182	Coast Live Oak	20	1	36	8	
183	Coast Live Oak	20	1	20	8	
184	Walnut	30	2	60	8	
185	Walnut	20	4	45	8	
186	Walnut	20	2	30	8	
187	Walnut	25	3	45	8	
188	Walnut	20	5	45	8	
189	Walnut	15	1	36	8	
190	Walnut	15	4	36	8	
191	Walnut	15	1	15	8	
192	Walnut	15	1	15	8	
193	Coast Live Oak	20	3	35	8	
194	Walnut	15	2	35	8	
195	Walnut	15	2	72	5	
196	Walnut	15	1	8	8	
197	Coast Live Oak	25	1	25	8	
198	Coast Live Oak	25	1	20	8	
199	Coast Live Oak	30	1	20	7	
200	Coast Live Oak	20	2	36	7	
201	Coast Live Oak	20	1	0	7	
202	Coast Live Oak	20	1	20	8	
203	Coast Live Oak	20	1	28	8	
204	Coast Live Oak	20	1	20	8	
205	Coast Live Oak	20	1	36	8	
206	Coast Live Oak	15	1	10	7	
207	Coast Live Oak	15	1	8	7	
208	Coast Live Oak	15	1	16	7	Holes in bark like barbed

<u>ID #</u>	<u>Tree Species</u>	<u>Height (ft.)</u>	<u># of Trunks</u>	<u>Cumulative DBH (in.)</u>	<u>Over All Rating</u>	<u>Comments</u>
209	Coast Live Oak	15	1	10	6	wire.
210	Coast Live Oak	20	1	30	7	
211	Coast Live Oak	15	1	8	7	
212	Coast Live Oak	12	1	22	7	
213	Coast Live Oak	30	2	40	7	
214	Coast Live Oak	20	1	30	9	
215	Walnut	15	1	10	7	
216	Coast Live Oak	25	1	26	7	
217	Walnut	15	1	24	6	
218	Walnut	15	3	35	7	
219	Coast Live Oak	25	1	46	8	
220	Walnut	15	1	6	6	
221	Coast Live Oak	20	1	15	8	
222	Coast Live Oak	20	2	36	6	
223	Coast Live Oak	15	1	10	7	
224	Coast Live Oak	15	1	24	7	
225	Coast Live Oak	25	2	68	6	
226	Coast Live Oak	25	1	20	9	
227	Coast Live Oak	20	1	20	7	
228	Coast Live Oak	25	1	20	8	
229	Coast Live Oak	20	5	40	8	
230	Coast Live Oak	20	1	25	7	
231	Coast Live Oak	30	2	32	8	
232	Coast Live Oak	20	4	70	8	
233	Coast Live Oak	30	4	70	7	
234	Coast Live Oak	25	1	30	9	
235	Walnut	30	11	52	6	
236	Walnut	20	1	38	8	
237	Walnut	25	2	70	7	
238	Coast Live Oak	25	1	25	7	
239	Coast Live Oak	20	2	48	8	
240	Coast Live Oak	15	1	28	8	
241	Coast Live Oak	15	1	15	8	
242	Coast Live Oak	15	1	15	8	
243	Coast Live Oak	15	1	15	7	
244	Coast Live Oak	30	2	72	8	
245	Coast Live Oak	25	6	90	8	
246	Coast Live Oak	15	1	24	7	
247	Walnut	15	1	16	4	
248	Coast Live Oak	25	1	20	9	
249	Coast Live Oak	20	1	20	9	
250	Sycamore	20	1	18	8	
251	Coast Live Oak	30	4	90	9	
252	Coast Live Oak	35	1	38	8	
253	Coast Live Oak	25	2	60	8	
254	Coast Live Oak	25	2	25	8	
255	Walnut	25	3	45	8	
256	Sycamore	20	1	8	8	
257	Coast Live Oak	20	1	20	7	
258	Coast Live Oak	15	1	20	6	
259	Coast Live Oak	15	1	8	7	
260	Coast Live Oak	20	3	45	8	
261	Coast Live Oak	20	1	8	6	

<u>ID #</u>	<u>Tree Species</u>	<u>Height (ft.)</u>	<u># of Trunks</u>	<u>Cumulative DBH (in.)</u>	<u>Over All Rating</u>	<u>Comments</u>
262	Walnut	20	1	20	8	
263	Walnut	20	1	20	8	
264	Coast Live Oak	20	1	20	8	
265	Sycamore	25	1	20	8	
266	Coast Live Oak	15	1	15	8	
267	Coast Live Oak	20	1	20	8	
268	Coast Live Oak	30	1	30	8	
269	Coast Live Oak	30	1	20	8	
270	Walnut	15	4	8	8	
271	Walnut	15	1	14	8	
272	Walnut	15	1	14	8	
273	Walnut	15	1	14	8	
274	Coast Live Oak	30	3	35	8	
275	Coast Live Oak	30	3	35	8	
276	Walnut	20	5	35	8	
277	Walnut	20	1	20	8	
278	Coast Live Oak	20	1	20	8	
279	Walnut	25	2	30	8	
280	Coast Live Oak	30	1	30	9	
281	Coast Live Oak	30	1	0	7	
282	Coast Live Oak	30	1	0	8	
283	Walnut	30	1	30	8	
284	Coast Live Oak	15	1	10	7	
285	Walnut	30	1	30	8	
286	Walnut	15	1	0	7	
287	Walnut	30	1	30	8	
288	Coast Live Oak	30	1	30	9	
289	Walnut	15	1	30	7	
290	Walnut	25	1	15	8	
291	Coast Live Oak	35	1	30	9	
292	Coast Live Oak	35	1	30	9	
293	Coast Live Oak	30	1	30	8	
294	Coast Live Oak	20	1	20	8	
295	Coast Live Oak	20	1	20	7	
296	Coast Live Oak	26	1	26	6	
297	Coast Live Oak	30	1	30	7	
298	Coast Live Oak	20	1	25	8	
299	Coast Live Oak	25	1	25	8	
300	Coast Live Oak	25	1	20	9	
301	Coast Live Oak	25	1	20	9	
302	Coast Live Oak	30	1	25	9	
303	Coast Live Oak	20	2	100	8	
304	Coast Live Oak	15	1	10	8	
305	Coast Live Oak	20	1	15	8	
306	Coast Live Oak	20	1	15	8	
307	Coast Live Oak	15	1	8	8	
308	Coast Live Oak	20	1	20	8	
309	Coast Live Oak	25	1	80	9	
310	Walnut	15	3	40	7	Some dead branches.
311	Walnut	20	3	60	8	Some dead branches.
312	Walnut	20	1	15	7	
313	Walnut	15	1	10	8	
314	Coast Live Oak	30	1	40	9	
315	Coast Live Oak	20	1	15	8	

<u>ID #</u>	<u>Tree Species</u>	<u>Height (ft.)</u>	<u># of Trunks</u>	<u>Cumulative DBH (in.)</u>	<u>Over All Rating</u>	<u>Comments</u>
316	Coast Live Oak	35	1	30	9	
317	Coast Live Oak	30	1	25	9	
318	Walnut	25	1	20	8	
319	Coast Live Oak	35	1	40	9	
320	Coast Live Oak	30	1	30	9	
321	Coast Live Oak	30	1	30	9	
322	Coast Live Oak	30	1	25	9	
323	Coast Live Oak	25	1	15	8	
324	Walnut	30	1	40	7	Some broken branches.
325	Walnut	20	1	15	8	
326	Walnut	25	2	30	8	
327	Coast Live Oak	30	1	25	9	
328	Coast Live Oak	30	1	25	9	
329	Walnut	35	1	30	9	
330	Coast Live Oak	35	1	30	9	
331	Walnut	25	2	60	8	
332	Walnut	20	2	20	8	
333	Walnut	25	1	20	8	
334	Coast Live Oak	35	1	30	9	
335	Coast Live Oak	20	1	20	8	
336	Walnut	25	1	15	8	
337	Coast Live Oak	25	1	15	9	
338	Coast Live Oak	20	1	20	9	
339	Coast Live Oak	15	1	10	9	
340	Coast Live Oak	30	1	30	9	
341	Walnut	25	3	30	9	
342	Coast Live Oak	25	1	20	9	
343	Coast Live Oak	30	1	30	9	
344	Coast Live Oak	30	1	30	9	
345	Coast Live Oak	25	2	60	9	
346	Sycamore	40	2	180	9	
347	Walnut	25	1	15	9	
348	Walnut	25	4	60	8	
349	Walnut	30	1	15	9	
350	Walnut	20	3	50	8	
351	Walnut	30	1	15	9	
352	Coast Live Oak	30	1	25	9	
353	Sycamore	40	1	30	9	
354	Walnut	25	1	15	7	
355	Walnut	15	3	0	8	
356	Eucalyptus	40	2	200	7	
357	Walnut	20	1	15	8	
358	Walnut	25	1	15	9	
359	Walnut	0	2	40	8	
360	Walnut	20	1	20	7	
361	Walnut	25	1	15	8	
362	Walnut	0	2	40	8	
363	Walnut	20	5	220	8	
364	Eucalyptus	30	1	200	7	
365	Walnut	25	1	20	8	

Tables 5 – 10 Legend for Species Designations .

Federal designations: (federal Endangered Species Act, US Fish and Wildlife Service):

END: Federally listed, endangered.

THR: Federally listed, threatened.

C1: Category I candidate. Sufficient data are available to support federal listing, but not listed at this time (equivalent to "candidate" (USDI Fish and Wildlife Service 1996).

Former C2: Formerly a Category 2 candidate species. Threat and/or distribution data are not sufficient to support federal listing at this time. No longer recognized by FWS.

C3a: Extinct.

C3b: Taxonomically invalid.

C3c: Too widespread and/or not threatened. No longer considered as a federal candidate for listing.

FSC: Federal Species of Concern

State designations: (California Endangered Species Act, California Dept. of Fish and Game)

END: State listed, endangered.

THR: State listed, threatened.

RARE: State listed as rare (Listed "Rare" animals have been re-designated as Threatened, but Rare plants have retained the Rare designation.)

CSC: California Species of Concern (DFG)

CDF&G Natural Diversity Data Base Designations: Applied to special status plants and sensitive plant communities; where correct category is uncertain, CDF&G uses two categories or question marks.

S1: Fewer than 6 occurrences or fewer than 1000 individuals or less than 2000 acres.

S1.1: Very threatened

S1.2: Threatened

S1.3: No current threats known

S2: 6-20 occurrences or 1000-3000 individuals or 2000-10,000 acres (decimal suffixes same as above).

S3: 21-100 occurrences or 3000-10,000 individuals or 10,000-50,000 acres (decimal suffixes same as above).

S4: Apparently secure in California; this rank is clearly lower than S3 but factors exist to cause some concern, i.e., there is some threat or somewhat narrow habitat. No threat rank.

S5: Demonstrably secure or ineradicable in California. No threat rank.

California Native Plant Society (CNPS) designations: (Note: According to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code. This interpretation is inconsistent with other definitions; see text.)

List 1A: Plants presumed extinct in California.

List 1B: Plants rare and endangered in California and throughout their range.

List 2: Plants rare, threatened or endangered in California but more common elsewhere in their range.

List 3: Plants about which we need more information; a review list.

List 4: Plants of limited distribution; a watch list.

CNPS R-E-D Code:

Rarity 1: Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction or extirpation is low at this time.

2: Occurrence confined to several populations or one extended population.

3: Occurrence limited to one or a few highly restricted populations, or present in such small numbers that it is seldom reported.

Endangerment 1: Not endangered.

2: Endangered in a portion of its range.

3: Endangered throughout its range.

Distribution 1: More or less widespread outside California.

2: Rare outside California.

3: Endemic to California (i.e., does not occur outside California).

Definitions of occurrence probability:

Occurs: Observed on the site during surveys described here, or recorded on-site by other qualified biologists.

High: Observed in similar habitat in region by qualified biologists, or often occurs in habitat similar to that on the site, and within the known range of the species.

Moderate: Reported sightings in surrounding region, or site is within the known range of the species and often occurs in habitat similar to that on the site.

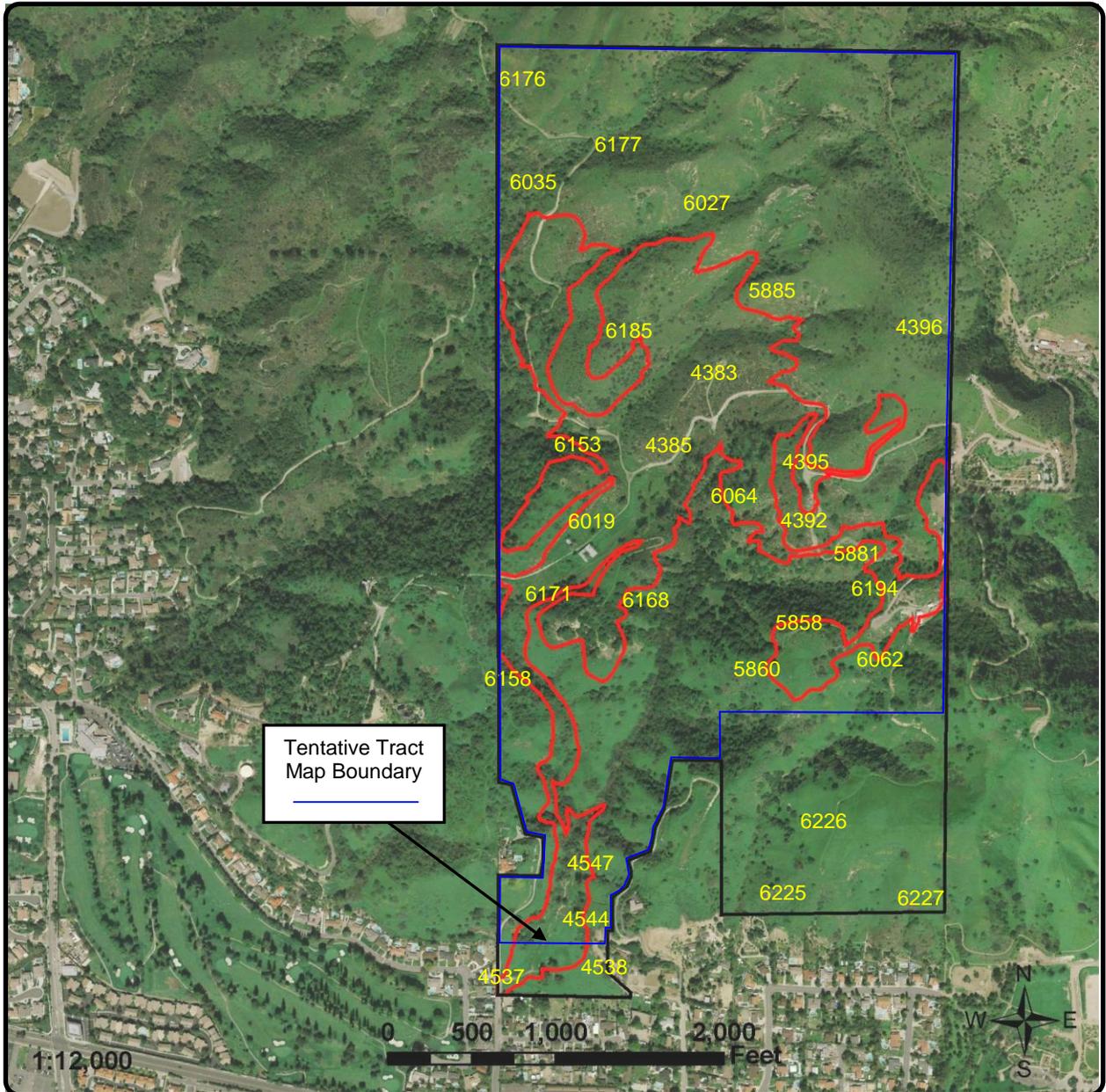
Low: Site is within the known range of the species but habitat on the site is rarely used by the species.

Absent: A focused study failed to detect the species, or, no suitable habitat is present, or the site is well outside known geographic or elevational ranges.

Unknown: No focused surveys have been performed in the region, and the species' distribution and habitat are poorly known.

APPENDIX B

Site Photographs





(6176)



(6027)



(6177)



(6185) (BTJ Observation Area)



(6035)



(4383) (CW Observation Area)



(5885)



(6153)



(4396)



(6019) (CHL Observation Area)



(4395)



(6171)



(6168) (CH Observation Area Fly Over)



(5881)



(6064)



(6194)



(4392)



(5858) (NH Observed Flying Over Low)



(5860)



(6226)



(6062)



(6227)



(6225)



(6158)



(4547)



(4537)



(4544)



(4538)



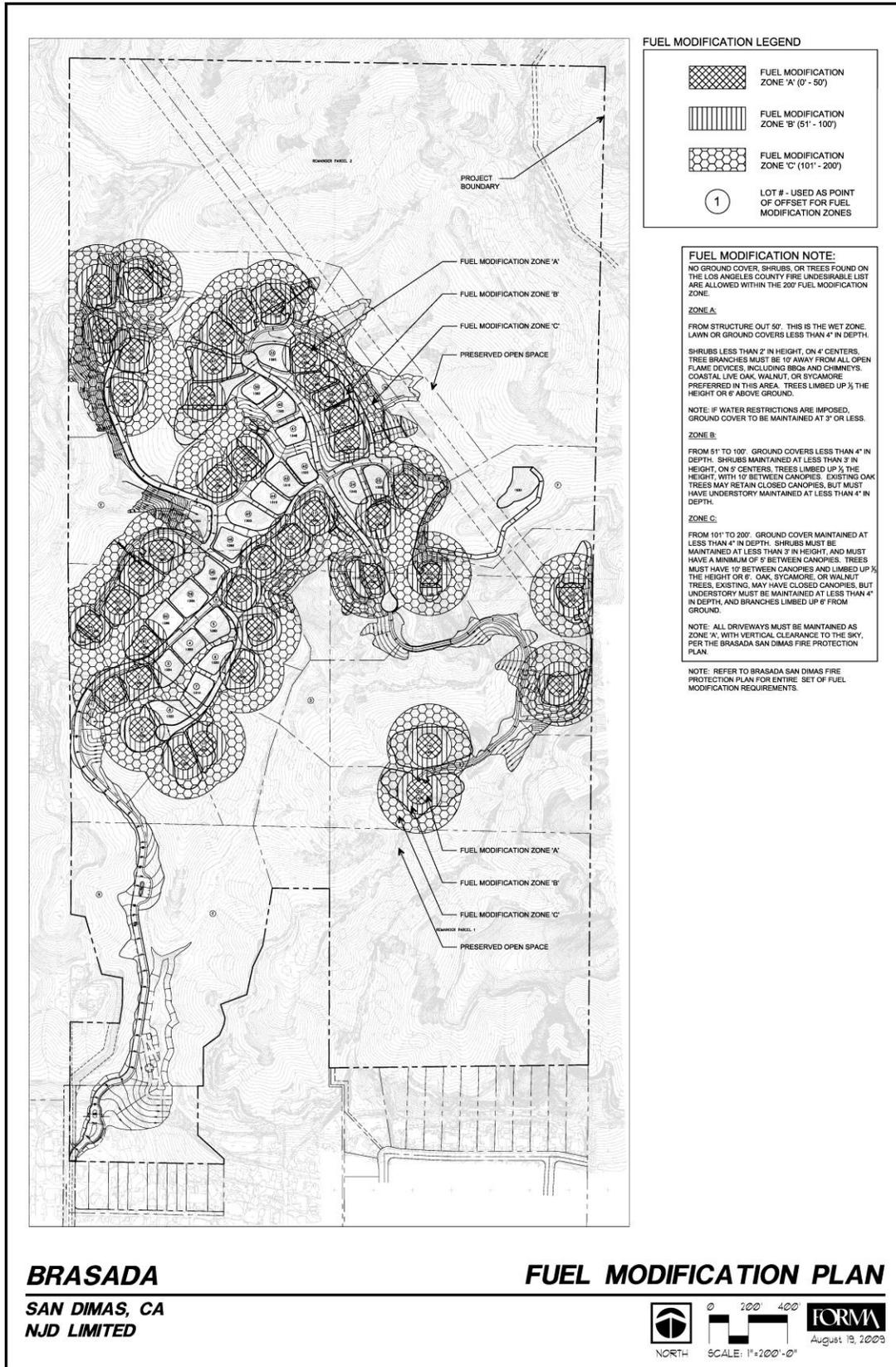
Calochortus plummerae



Calochortus plummerae

APPENDIX C

Fuel Modification Plan



APPENDIX D

NDDDB Field Survey Forms
And
California Red-legged Frog
Habitat Site Assessment Data Sheet

Mail to:
 California Natural Diversity Database
 Department of Fish and Game
 1807 13th Street, Suite 202
 Sacramento, CA 95811
 Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only	
Source Code _____	Quad Code _____
Elm Code _____	Occ. No. _____
EO Index No. _____	Map Index No. _____

Date of Field Work (mm/dd/yyyy): 04/22/2010

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Eremophila alpestris

Common Name: Horned Lark

Species Found? Yes No If not, why? _____

Total No. Individuals 3 Subsequent Visit? yes no

Is this an existing NDDDB occurrence? yes, Occ. # _____ no unk.

Collection? If yes: _____
 Number _____ Museum / Herbarium _____

Reporter: Guy Bruyca

Address: L&L Environmental, Inc.
700 East Redlands Blvd., Suite U, PMB#351, Redlands, CA

E-mail Address: gbruyca@gmail.com

Phone: (909) 226-9268

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

3

adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown _____

wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Foothills north of Glendora/San Dimas along E. Wildwood Ranch Road near former (abandoned) equestrian center.

County: Los Angeles Landowner / Mgr.: Private

Quad Name: Glendora Elevation: 1270'

T 1N R 10W Sec 34, NW ¼ of NE ¼, Meridian: H M S

Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S

GPS Make & Model Garmin GPSmap 60CSx

DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy 8-12 feet meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: N 34.13486 W 117.81057

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Observed in flatland area near abandoned equestrian center. Area is mostly disturbed with tall non-native grasses and other weedy annuals. Birds were observed on ground along an unimproved road (E. Wildwood Ranch Rd.), presumably foraging.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Open space/previously disturbed

Visible disturbances: Abandoned Equestrian Center. Rural residential (abandoned) to the south.

Threats: None

Comments:

Determination: (check one or more, and fill in blanks)

Keyed (cite reference): _____

Compared with specimen housed at: _____

Compared with photo / drawing in: _____

By another person (name): _____

Other: myself

Photographs: (check one or more)

Slide	Print	Digital
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Plant / animal
 Habitat
 Diagnostic feature

May we obtain duplicates at our expense? yes no

Mail to:
 California Natural Diversity Database
 Department of Fish and Game
 1807 13th Street, Suite 202
 Sacramento, CA 95811
 Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

Date of Field Work (mm/dd/yyyy): 04/18/2010

For Office Use Only

Source Code _____ Quad Code _____
 Elm Code _____ Occ. No. _____
 EO Index No. _____ Map Index No. _____

Reset **California Native Species Field Survey Form** **Send Form**

Scientific Name: Campylorhynchus brumeicapillus

Common Name: Cactus Wren

<p>Species Found? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No _____ If not, why? _____</p> <p>Total No. Individuals <u>1</u> Subsequent Visit? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no</p> <p>Is this an existing NDDDB occurrence? <input type="checkbox"/> no <input checked="" type="checkbox"/> unk. Yes, Occ. # _____</p> <p>Collection? If yes: _____ Number _____ Museum / Herbarium _____</p>	<p>Reporter: <u>Guy Bruyeca</u></p> <p>Address: <u>L&L Environmental, Inc.</u> <u>700 East Redlands Blvd., Suite U, PMB#351, Redlands, CA</u></p> <p>E-mail Address: <u>gbruyeca@gmail.com</u></p> <p>Phone: <u>(951) 681-4929</u></p>
---	---

<p>Plant Information</p> <p>Phenology: _____% vegetative _____% flowering _____% fruiting</p>	<p>Animal Information</p> <p><u>1</u></p> <table style="width: 100%;"> <tr> <td># adults <input type="checkbox"/></td> <td># juveniles <input type="checkbox"/></td> <td># larvae <input type="checkbox"/></td> <td># egg masses <input type="checkbox"/></td> <td># unknown <input type="checkbox"/></td> </tr> <tr> <td>wintering</td> <td>breeding</td> <td>nesting</td> <td>rookery</td> <td>burrow site</td> </tr> </table>	# adults <input type="checkbox"/>	# juveniles <input type="checkbox"/>	# larvae <input type="checkbox"/>	# egg masses <input type="checkbox"/>	# unknown <input type="checkbox"/>	wintering	breeding	nesting	rookery	burrow site
# adults <input type="checkbox"/>	# juveniles <input type="checkbox"/>	# larvae <input type="checkbox"/>	# egg masses <input type="checkbox"/>	# unknown <input type="checkbox"/>							
wintering	breeding	nesting	rookery	burrow site							

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Foothills north of Glendora/San Dimas approx 1/2 mi W of Sycamore Canyon Rd. north of Ferguson Mtwy (unimproved road).

County: Los Angeles Landowner / Mgr.: Private

Quad Name: Glendora Elevation: 1364

T 1N R 10W Sec 27, SW ¼ of SE ¼, Meridian: H M S

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S

DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy 8-12 feet meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: N 34.13784 W 117.80718

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Bird was observed perched and calling/singing within a patch of coast prickly-pear (Opuntia littoralis) north of Ferguson Mtwy. The site lies on a gradual north-facing slope. No additional observations were made despite subsequent visits to this area and other areas of the site containing suitable habitat.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Mostly open space; unimproved road nearby to the south

Visible disturbances: Invasive NNG

Threats: None

Comments:

<p>Determination: (check one or more, and fill in blanks)</p> <p><input type="checkbox"/> Keyed (cite reference): _____</p> <p><input type="checkbox"/> Compared with specimen housed at: _____</p> <p><input type="checkbox"/> Compared with photo / drawing in: _____</p> <p><input type="checkbox"/> By another person (name): _____</p> <p><input checked="" type="checkbox"/> Other: <u>myself by bird call AND visual identification</u></p>	<p>Photographs: (check one or more)</p> <table style="width: 100%;"> <tr> <td>Slide</td> <td>Print</td> <td>Digital</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Plant / animal</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Habitat</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Diagnostic feature</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> <p>May we obtain duplicates at our expense? yes <input type="checkbox"/> no <input type="checkbox"/></p>	Slide	Print	Digital	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plant / animal	<input type="checkbox"/>	<input type="checkbox"/>	Habitat	<input type="checkbox"/>	<input type="checkbox"/>	Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>
Slide	Print	Digital														
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>														
Plant / animal	<input type="checkbox"/>	<input type="checkbox"/>														
Habitat	<input type="checkbox"/>	<input type="checkbox"/>														
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>														

Mail to:
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 Department of Fish and Game
 1807 13th Street, Suite 202
 Sacramento, CA 95811
 Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only	
Source Code _____	Quad Code _____
Elm Code _____	Occ. No. _____
EO Index No. _____	Map Index No. _____

Date of Field Work (mm/dd/yyyy): 04/22/2010

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Accipiter cooperii

Common Name: Cooper's Hawk

Species Found? Yes No _____ If not, why? _____

Total No. Individuals 1 Subsequent Visit? yes no

Is this an existing NDDDB occurrence? no unk. Yes, Occ. # _____

Collection? If yes: _____
 Number _____ Museum / Herbarium _____

Reporter: Guy Bruyca

Address: L&L Environmental, Inc.
700 East Redlands Blvd., Suite U, PMB#351, Redlands, CA

E-mail Address: gbruyca@gmail.com

Phone: (909) 226-9268

Plant Information	Animal Information
Phenology: _____% vegetative _____% flowering _____% fruiting	<u>1</u> # adults <input type="checkbox"/> # juveniles <input type="checkbox"/> # larvae <input type="checkbox"/> # egg masses <input type="checkbox"/> # unknown <input type="checkbox"/> wintering <input type="checkbox"/> breeding <input type="checkbox"/> nesting <input type="checkbox"/> rookery <input type="checkbox"/> burrow site <input type="checkbox"/> other <input type="checkbox"/>

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Foothills north of Glendora/San Dimas

County: Los Angeles Landowner / Mgr.: Private

Quad Name: Glendora Elevation: 1161'

T 1N R 10W Sec 34, NW ¼ of NE ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model Garmin GPSmap 60CSx

DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy 8-12 feet meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: N 34.13361 W 117.80854

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:
Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):
Bird was observed flying over patch of Eucalyptus woodland south through canyon over mixture of coast live oak and California black walnut woodland. CH was observed on subsequent visits to same area. Not known if it was the same individual or additional bird(s).

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Open Space. Rural residential structure to the southwest.

Visible disturbances: Invasive NNG. Eucalyptus Grove.

Threats: None

Comments:

<p>Determination: (check one or more, and fill in blanks)</p> <input type="checkbox"/> Keyed (cite reference): _____ <input type="checkbox"/> Compared with specimen housed at: _____ <input type="checkbox"/> Compared with photo / drawing in: _____ <input type="checkbox"/> By another person (name): _____ <input checked="" type="checkbox"/> Other: <u>myself</u>	<p>Photographs: (check one or more)</p> Slide <input type="checkbox"/> Print <input type="checkbox"/> Digital <input type="checkbox"/> Plant / animal <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Habitat <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Diagnostic feature <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <p>May we obtain duplicates at our expense? yes <input type="checkbox"/> no <input type="checkbox"/></p>
---	--

Mail to:
 California Natural Diversity Database
 Department of Fish and Game
 1807 13th Street, Suite 202
 Sacramento, CA 95811
 Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

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Source Code _____ Quad Code _____
 Elm Code _____ Occ. No. _____
 EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 03/21/2010

Reset

California Native Species Field Survey Form

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Scientific Name: Lepus californicus

Common Name: Black-tailed Jackrabbit

Species Found? Yes No _____ If not, why? _____
 Total No. Individuals 2 Subsequent Visit? yes no
 Is this an existing NDDDB occurrence? _____ no unk.
 Yes, Occ. # _____
 Collection? If yes: _____
 Number _____ Museum / Herbarium _____

Reporter: Guy Bruyeya
 Address: L&L Environmental, Inc.
700 East Redlands Blvd., Suite U, PMB#351, Redlands, CA
 E-mail Address: gbruyeya@gmail.com
 Phone: (951) 681-4929

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

2
 # adults # juveniles # larvae # egg masses # unknown
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Foothills north of Glendora/San Dimas
 County: Los Angeles Landowner / Mgr.: Private
 Quad Name: Glendora Elevation: 1260-1434'
 T 1N R 10W Sec 27, SW ¼ of SE ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GPS
 T 1N R 10W Sec 34, NW ¼ of NE ¼, Meridian: H M S GPS Make & Model Garmin GPSmap 60SCx
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy 8-12 feet meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
 Coordinates: N 34.13179 W 117.80734
N 34.13882 W 117.80920

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:
Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):
 Observed in mixture of coastal sage scrub, mixed chaparral and non-native grassland. Dominant plants in the area include (but are not limited to) Eriogonum fasciculatum, Malosma laurina, Artemisia californica, Brickellia californica, Lotus scoparius, Mirabilis californica, Dichelostemma capitatum, Deinandra fasciculata, Bromus diandrus, Bromus madritensis ssp. rubens, Avena barbata. The site lies on a gradual to steep north-facing slope.
 Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor
 Immediate AND surrounding land use: Open space; Dense residential south of the site in Glendora/San Dimas
 Visible disturbances: Invasive NNG
 Threats: None
 Comments:

Determination: (check one or more, and fill in blanks)

Keyed (cite reference): _____
 Compared with specimen housed at: _____
 Compared with photo / drawing in: _____
 By another person (name): _____
 Other: myself

Photographs: (check one or more)

Slide	Print	Digital
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? yes no

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 Department of Fish and Game
 1807 13th Street, Suite 202
 Sacramento, CA 95811
 Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

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 Elm Code _____ Occ. No. _____
 EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 05/21/2010

Reset **California Native Species Field Survey Form** **Send Form**

Scientific Name: Circus cyaneus

Common Name: Northern Harrier

<p>Species Found? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No _____ If not, why? _____</p> <p>Total No. Individuals <u>1</u> Subsequent Visit? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no</p> <p>Is this an existing NDDDB occurrence? <input type="checkbox"/> no <input type="checkbox"/> unk.</p> <p>Collection? If yes: _____ Number _____ Museum / Herbarium _____</p>	<p>Reporter: <u>Guy Bruyca</u></p> <p>Address: <u>L&L Environmental, Inc.</u> <u>700 East Redlands Blvd., Suite U, PMB#351, Redlands, CA</u></p> <p>E-mail Address: <u>gbruyca@gmail.com</u></p> <p>Phone: <u>(909) 226-9268</u></p>
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<p>Plant Information</p> <p>Phenology: _____% vegetative _____% flowering _____% fruiting</p>	<p>Animal Information</p> <p><u>1</u></p> <table style="width: 100%; text-align: center;"> <tr> <td># adults</td> <td># juveniles</td> <td># larvae</td> <td># egg masses</td> <td># unknown</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>wintering</td> <td>breeding</td> <td>nesting</td> <td>rookery</td> <td>burrow site</td> </tr> <tr> <td>other</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	# adults	# juveniles	# larvae	# egg masses	# unknown	<input type="checkbox"/>	wintering	breeding	nesting	rookery	burrow site	other								
# adults	# juveniles	# larvae	# egg masses	# unknown																	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																	
wintering	breeding	nesting	rookery	burrow site																	
other																					

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Foothills north of Glendora/San Dimas

County: Los Angeles Landowner / Mgr.: Private

Quad Name: Glendora Elevation: 1398'

T 1N R 10W Sec 34, NE ¼ of NE ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model Garmin GPSmap 60CSx

DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy 8-12 feet meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: N 34.13375 W 117.80538

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Bird was observed flying over site (low), presumably for foraging purposes. This was an unusual sighting given the topography of the site. Northern harrier are typically associated with and observed in flatland areas.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Open space/rural residential just east of site.

Visible disturbances: None

Threats: None

Comments:

<p>Determination: (check one or more, and fill in blanks)</p> <p><input type="checkbox"/> Keyed (cite reference): _____</p> <p><input type="checkbox"/> Compared with specimen housed at: _____</p> <p><input type="checkbox"/> Compared with photo / drawing in: _____</p> <p><input type="checkbox"/> By another person (name): _____</p> <p><input checked="" type="checkbox"/> Other: <u>myself</u></p>	<p>Photographs: (check one or more)</p> <table style="width: 100%; text-align: center;"> <tr> <td>Slide</td> <td>Print</td> <td>Digital</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Plant / animal</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Habitat</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Diagnostic feature</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> <p>May we obtain duplicates at our expense? yes <input type="checkbox"/> no <input type="checkbox"/></p>	Slide	Print	Digital	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plant / animal	<input type="checkbox"/>	<input type="checkbox"/>	Habitat	<input type="checkbox"/>	<input type="checkbox"/>	Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>
Slide	Print	Digital														
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>														
Plant / animal	<input type="checkbox"/>	<input type="checkbox"/>														
Habitat	<input type="checkbox"/>	<input type="checkbox"/>														
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>														

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Source Code _____ Quad Code _____
 Elm Code _____ Occ. No. _____
 EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/11/2010

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Calochortus plummerae

Common Name: Plummer's Mariposa Lily

Species Found? Yes No If not, why?

Total No. Individuals 2 Subsequent Visit? yes no
 Is this an existing NDDB occurrence? no unk.
Yes, Occ. #

Collection? If yes: _____
Number Museum / Herbarium

Reporter: Guy Bruyeya
Address: L&L Environmental, Inc.
700 East Redlands Blvd., Suite U, PMB#351, Redlands, CA
E-mail Address: gbruyeya@gmail.com
Phone: (951) 681-4929

Plant Information

Phenology: _____% vegetative 100% flowering _____% fruiting

Animal Information

# adults	# juveniles	# larvae	# egg masses	# unknown
<input type="checkbox"/>				
wintering	breeding	nesting	rookery	burrow site
<input type="checkbox"/>				

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Foothills north of Glendora/San Dimas approx 1/2 mi W of Sycamore Canyon Rd. near rural residence

County: Los Angeles Landowner / Mgr.: Private
 Quad Name: Glendora Elevation: 1383'
 T 1N R 10W Sec 27, SE ¼ of SE ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GPS
 T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model Garmin GPSmap 60SCx
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy 8-12 feet meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
Coordinates: N 34.13636 W 117.80442

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:
Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Mixture of coastal sage scrub and non-native grassland. Mixed chaparral plants were observed just north. Dominant plants in the area include (but are not limited to) Eriogonum fasciculatum, Artemisia californica, Brickellia californica, Lotus scoparius, Opuntia littoralis, Mirabilis californica, Dichelostemma capitatum, Deinandra fasciculata, Bromus diandrus, Bromus madritensis ssp. rubens, Avena barbata. Ornamental trees can be found lining nearby driveway/road to rural residence south of the site. Plants were found growing on a steep west-facing slope below unpaved road.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Open space/unimproved road. Residential land use just south of the site.

Visible disturbances: Residential land uses just south of the site.

Threats: Invasive NNG and adjacent unpaved road

Comments:

Determination: (check one or more, and fill in blanks)

Keyed (cite reference): _____
 Compared with specimen housed at: _____
 Compared with photo / drawing in: _____
 By another person (name): confirmed by Andrew Sanders (UCR Herbarium)
 Other: myself

Photographs: (check one or more)

Plant / animal	Slide <input type="checkbox"/>	Print <input type="checkbox"/>	Digital <input type="checkbox"/>
Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? yes no

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Source Code _____ Quad Code _____
 Elm Code _____ Occ. No. _____
 EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/17/2010

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Calochortus plummerae

Common Name: Plummer's Mariposa Lily

Species Found? Yes No _____ If not, why? _____
 Total No. Individuals 1 Subsequent Visit? yes no
 Is this an existing NDDDB occurrence? _____ no unk.
 Yes, Occ. # _____
 Collection? If yes: _____
 Number _____ Museum / Herbarium _____

Reporter: Guy Bruyca
 Address: L&L Environmental, Inc.
700 East Redlands Blvd., Suite U, PMB#351, Redlands, CA
 E-mail Address: gbruyca@gmail.com
 Phone: (951) 681-4929

Plant Information

Phenology: _____% vegetative 90% flowering 10% fruiting

Animal Information

adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown _____
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Foothills north of Glendora/San Dimas approx 1/2 mi W of Sycamore Canyon Rd. along Ferguson Mtwy (unimproved road).
 County: Los Angeles Landowner / Mgr.: Private
 Quad Name: Glendora Elevation: 1453'
 T 1N R 10W Sec 34, NE ¼ of NE ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GPS
 T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model Garmin GPSmap 60CSx
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy 8-12 feet meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
Coordinates: N 34.13447 W 117.80392

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):
 Mixture of coastal sage scrub and non-native grassland. Dominant plants in the area include (but are not limited to) Eriogonum fasciculatum, Artemisia californica, Brickellia californica, Lotus scoparius, Opuntia littoralis, Mirabilis californica, Dichelostemma capitatum, Deinandra fasciculata, Bromus diandrus, Bromus madritensis ssp. rubens, Avena barbata. Plant was observed growing on a road cut along and north of Ferguson Mtwy. The site lies on a fairly steep north-facing slope.
 Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor
 Immediate AND surrounding land use: Open space/Unimproved road
 Visible disturbances: Unpaved road cut immediately adjacent to plant observed
 Threats: Invasive NNG and bank erosion
 Comments:

Determination: (check one or more, and fill in blanks)
 Keyed (cite reference): _____
 Compared with specimen housed at: _____
 Compared with photo / drawing in: _____
 By another person (name): confirmed by Andrew Sanders, UCR Herbarium
 Other: myself

Photographs: (check one or more) Slide Print Digital
 Plant / animal
 Habitat
 Diagnostic feature
 May we obtain duplicates at our expense? yes no

DFG/BDB1747 Rev. 6/16/09

California Red-legged Frog Habitat Site Assessment Data Sheet

Site Assessment reviewed by _____
(FWS Field Office) (date) (biologist)

Date of Site Assessment: 04/04/2010, 04/05/2010, 04/06/2010
(mm/dd/yyyy)

Site Assessment Biologists: CAMERON SCOTT _____
(Last name) (first name) (Last name) (first name)

(Last name) (first name) (Last name) (first name)

Site Location: LOS ANGELES CO., CITY OF SAN DIMAS
(County, General location name, UTM Coordinates or Lat./Long. or T-R-S).

****ATTACH A MAP** (include habitat types, important features, and species locations)**

Proposed project name: BRASADA
Brief description of proposed action:
314 AC SURVEY AREA, 270 AC TMAP 70583. DEVELOPMENT OF 61 SINGLE FAMILY HOUSES ON LARGE LOTS. 90 ACRE IMPACT AREA. INCLUDING ASSOCIATED ROADWAYS.

- 1) Is this site within the current or historic range of the CRF (circle one)? YES NO
- 2) Are there known records of CRF within 1.6 km (1 mi) of the site (circle one)? YES NO
If yes, attach a list of all known CRF records with a map showing all locations.

GENERAL AQUATIC HABITAT CHARACTERIZATION
(if multiple ponds or streams are within the proposed action area, fill out one data sheet for each)

POND: NONE
Size: _____ Maximum depth: _____
Vegetation: emergent, overhanging, dominant species: _____

Substrate: _____

Perennial or Ephemeral (circle one). If ephemeral, date it goes dry: _____

California Red-legged Frog Habitat Site Assessment Data Sheet

STREAM:

Bank full width: _____

Depth at bank full: _____

Stream gradient: _____

Are there pools (circle one)? YES NO

If yes,

Size of stream pools: _____

Maximum depth of stream pools: _____

Characterize non-pool habitat: run, riffle, glide, other: _____

Vegetation: emergent, overhanging, dominant species: _____

Substrate: _____

Bank description: _____

Perennial or Ephemeral (circle one). If ephemeral, date it goes dry: _____

Other aquatic habitat characteristics, species observations, drawings, or comments:

DUE TO THE LARGE SIZE OF THE PROPERTY, THE PRESENCE OF DRAINAGES (FROM AERIAL & TOPO MAPS) & THE PRESENCE OF WOODLAND HABITATS AN ASSESSMENT WAS CONDUCTED, BUT NO AQUATIC HABITAT WAS IDENTIFIED. DRAINAGES WERE DRY AFTER RECENT RAINS.

Necessary Attachments:

1. All field notes and other supporting documents
2. Site photographs
3. Maps with important habitat features and species location

APPENDIX E

Invasive Species

Cal-Invasive Plant Council: The Inventory Database

Scientific Name Common Name Rating Alert Impacts Invasiveness Distribution Documentation CA CA-FP CaR CW GV

Acacia dealbata silver wattle Moderate No B B B 2.5 N N N Y N Y N
Acacia melanoxylon black acacia, blackwood acacia Limited No C C B 2.7 N N N Y N
Acacia paradoxa kangaroothorn Eval No List No D C C 2.5 N N N Y N N
Acroptilon repens Russian knapweed Moderate No B B B 3.2 N Y Y Y Y
Aegilops triuncialis barb goatgrass High No A A B 3.6 N N Y Y Y N Y
Aeschynomene rudis rough jointvetch Eval No List No D C D 3.2 N N N N Y
Ageratina adenophora croftonweed, eupatorium Moderate No B B B 2.8 N N N Y N
Agrostis avenacea Pacific bentgrass Limited No C C C 2.4 N N N Y Y Y
Agrostis stolonifera creeping bentgrass Limited No C B C 1.9 N N N Y Y Y
Ailanthus altissima tree-of-heaven Moderate No B B B 3.0 N Y Y Y Y Y
Aira caryophyllaea silver hairgrass Eval No List No D C A 2.6 N Y Y Y Y
Aira praecox European hairgrass Eval No List No D C C 2.8 N N N N N Y
Albizia lophantha plume acacia Eval No List No U C C 1.5 N N N Y N N
Alhagi maurorum camelthorn Moderate No B B B 3.2 N N N N Y N N
Allium triquetrum three-cornered leek Eval No List No U C C 1.6 N N N Y N
Alternanthera philoxeroides alligator weed High Alert A B C 2.9 N N N N Y N
Ammophila arenaria European beachgrass High No A B B 3.2 N N N Y N Y
Anthemis cotula mayweed chamomile, dog fennel Eval No List No D B B 2.4 N N N Y Y
Anthoxanthum odoratum sweet vernalgrass Moderate No B B B 2.7 N N N Y N
Arctotheca calendula (fertile) fertile capeweed Moderate Alert B B C 3.6 N N N Y
Arctotheca calendula (sterile) sterile capeweed Moderate No B B B 2.8 N N N Y
Arundo donax giant reed High No A B A 2.8 N N N Y Y Y Y
Asparagus asparagoides bridal creeper Moderate Alert B B D 2.6 N N N Y N N
Asphodelus fistulosus onionweed Moderate Alert B A C 2.9 N N N N Y N
Atriplex semibaccata Australian saltbush Moderate No B B B 2.9 Y Y Y Y Y
Avena barbata slender wild oat Moderate No B B A 3.5 N N N N N N
Avena fatua wild oat Moderate No B B A 3.2 N N N N N N
Bassia hyssopifolia fivehook bassia Limited No C C B 2.7 Y Y Y Y Y Y
Bellardia trixago bellardia Limited No C C C 1.9 N N N Y N Y N
Bellis perennis English daisy Eval No List No D C C 2.8 N N N Y N Y N
Berberis darwinii Darwin barberry Eval No List No U B D 2.1 N N N Y N N
Brachypodium distachyon annual false-brome, false brome, purple false broom, stiff brome Moderate No B B B
Brachypodium sylvaticum perennial false-brome Moderate Alert B A D 2.5 N N N Y N
Brassica nigra black mustard Moderate No B B A 2.0 N Y Y Y Y Y
Brassica rapa birdsrape mustard, field mustard Limited No C B B 1.8 N Y Y Y Y
Brassica tournefortii Saharan mustard, African mustard High No A A B 2.3 N N N N
Briza maxima big quackinggrass, rattlesnakegrass Limited No B C B 2.3 N N N Y N
Bromus diandrus ripgut brome Moderate No B B A 3.3 Y Y Y Y Y Y

Bromus hordeaceus soft brome Limited No B C A 2.8 Y Y Y Y Y Y Y
Bromus japonicus Japanese brome, Japanese chess Limited No B C B 2.6 N Y Y Y Y
Bromus madritensis ssp. rubens red brome High No A B A 3.0 Y Y Y Y Y Y
Bromus tectorum downy brome, cheatgrass High No A B A 3.1 N N N N N N
Buddleja davidii butterflybush Eval No List No D B D 2.5 N N N Y N Y
Cakile maritima European sea-rocket Limited No C B B 3.6 N N N Y N Y N
Cardaria chalepensis lens-podded white-top Moderate Alert B B C 3.2 N Y Y Y Y
Cardaria draba hoary cress Moderate No B B B 2.6 N N N Y N N N
Cardaria pubescens hairy whitetop Limited No C B C 2.5 N N N N Y N N
Carduus acanthoides plumeless thistle Limited No B C C 3.0 N N N Y N Y
Carduus nutans musk thistle Moderate No B B B 3.1 N N Y N N Y Y
Carduus pycnocephalus Italian thistle Moderate No B B A 2.9 N N N Y Y Y
Carduus tenuiflorus slenderflower thistle Limited No C C B 2.8 N N N Y N Y
Carpobrotus chilensis sea-fig, iceplant Moderate No B B A 1.8 N N N Y N
Carpobrotus edulis Hottentot-fig, iceplant High No A B A 3.3 N N N Y N Y
Carthamus lanatus woolly distaff thistle Moderate Alert A B C 2.8 N N N Y N
Centaurea calcitrapa purple starthistle Moderate No B B B 2.7 N N N Y Y
Centaurea debeauxii meadow knapweed Moderate Alert B B C 2.7 N N N Y N Y
Centaurea diffusa diffuse knapweed Moderate No B B B 3.3 N N Y Y N
Centaurea maculosa spotted knapweed High No A B B 3.4 N Y Y Y Y Y
Centaurea melitensis Malta starthistle, tocalote Moderate No B B B 2.6 N N Y N
Centaurea solstitialis yellow starthistle High No A B A 3.0 N Y Y Y Y Y
Centaurea virgata ssp. squarrosa squarrose knapweed Moderate No B B B 2.8 N N Y
Cestrum parqui willow jessamine Eval No List No U B C 2.0 N N N Y N N
Chondrilla juncea rush skeletonweed Moderate No B B B 3.1 N N Y Y Y
Chorisporea tenella blue mustard Eval No List No U C C 1.5 N N Y N Y N
Chrysanthemum coronarium crown daisy Moderate No B B B 2.0 N N N Y N
Cirsium arvense Canada thistle Moderate No B B B 2.8 N Y Y Y Y Y Y
Cirsium vulgare bull thistle Moderate No B B B 3.3 N Y Y Y Y Y
Cistus ladanifer gum rockrose Eval No List No D C C 3.3 N N N Y N N
Conicosia pugioniformis narrowleaf iceplant Limited No C B C 2.1 N N N Y N
Conium maculatum poison-hemlock Moderate No B B B 2.8 N Y Y Y Y Y
Convolvulus arvensis field bindweed Eval No List No C B B 3.5 Y Y Y Y Y Y
Cordyline australis giant dracaena, New Zealand cabbage tree Limited No C C C 2.0 N N N
Cortaderia jubata jubatagrass High No A A A 3.1 N N N Y N Y Y
Cortaderia selloana pampasgrass High No A A B 3.2 N N Y Y N Y Y
Cotoneaster franchetii orange cotoneaster Moderate No B A B 2.6 N N N Y N
Cotoneaster lacteus Parney's cotoneaster Moderate No B B B 2.1 N N N Y N
Cotoneaster pannosus silverleaf cotoneaster Moderate No B A B 2.5 N N N Y N
Cotula coronopifolia brassbuttons Limited No C C B 2.2 N N N Y N Y N
Crataegus monogyna hawthorn Limited No C B C 3.4 N N N Y N Y N
Crococsmia x crocosmiiflora montbretia Limited No C B B 2.6 N N N Y N Y
Crupina vulgaris common crupina, bearded creeper Limited No B C B 3.2 N N N N N

Cupressus macrocarpa Monterey cypress Native No B B B 2.3 N N N Y N N
Cynara cardunculus artichoke thistle Moderate No B B B 4.0 N N N Y N
Cynodon dactylon bermudagrass Moderate No B B B 3.3 N Y Y Y Y Y
Cynoglossum officinale houndstongue Moderate No B B B 2.5 N N Y N N N
Cynosurus echinatus hedgehog dogtailgrass Moderate No B B A 2.5 N N N Y Y
Cytisus scoparius Scotch broom High No A B A 3.2 N Y Y Y Y Y
Cytisus striatus Portuguese broom Moderate No B B B 2.7 N N N Y N
Dactylis glomerata orchardgrass Limited No C B B 2.9 N Y Y Y Y Y
Daucus carota wild carrot, Queen Anne's lace Eval No List No D C B 2.7 Y Y Y Y Y
Delairea odorata Cape-ivy, German-ivy High No A A B 3.1 N N Y Y N Y
Descurainia sophia flixweed, tansy mustard Limited No C B B 1.9 Y Y Y Y Y Y
Digitalis purpurea foxglove Limited No C B B 2.4 N N N Y N Y Y
Dimorphotheca sinuata African daisy Eval No List No D C B 1.8 N N N Y Y N
Dipsacus fullonum common teasel Moderate No B B B 3.8 N N N Y N Y
Dipsacus sativus fuller's teasel Moderate No B B B 3.8 N N N Y N Y
Dittrichia graveolens stinkwort Moderate Alert B A C 3.0 N N N Y Y Y
Echium candicans pride-of-Madeira Limited No C B B 1.5 N N N Y N Y
Egeria densa Brazilian egeria High No A A B 3.1 N N N N Y N Y
Ehrharta calycina purple veldtgrass High No A A B 3.4 N N N Y N N
Ehrharta erecta erect veldtgrass Moderate No B B B 2.2 N N N Y N
Ehrharta longiflora long-flowered veldtgrass Moderate Alert B B C 2.8 N N N N
Eichhornia crassipes water hyacinth High Alert A A C 3.2 N N N Y Y N N
Elaeagnus angustifolia Russian-olive Moderate No B A B 3.3 N N N Y Y N
Emex spinosa spiny emex, devil's-thorn Moderate Alert B B D 1.6 N N N N N
Erechtites glomerata, E. minima Australian fireweed, Australian burnweed Moderate No C B A 3.2
Erigeron karvinskianus Mexican daisy Eval No List No U B C 1.9 N N N Y N N
Erodium botrys broadleaf filaree Eval No List No D C A 2.8 N Y Y Y Y Y
Erodium brachycarpum short-fruited filaree Eval No List No C C A 2.6 N Y Y Y Y Y
Erodium cicutarium redstem filaree Limited No C C A 3.1 Y Y Y Y Y Y
Erodium moschatum whitestem filaree Eval No List No D C A 2.7 N Y Y Y Y Y
Eucalyptus camaldulensis red gum Limited No C C C 2.2 N N N Y Y Y N
Eucalyptus globulus Tasmanian blue gum Moderate No B B B 2.8 N N N Y Y
Euphorbia esula leafy spurge High Alert A A C 3.5 N N Y N N Y N Y
Euphorbia lathyris caper spurge Eval No List No D C B 2.2 N N N Y Y Y
Euphorbia oblongata oblong spurge Limited No C C B 2.0 N N Y Y Y Y Y
Euphorbia terracina carnation spurge Moderate Alert B B C 1.7 N N N N N
Festuca arundinacea tall fescue Moderate No B B A 2.9 N Y Y Y Y Y
Ficus carica edible fig Moderate No B A B 2.6 N N N Y Y N N
Foeniculum vulgare fennel High No A B A 3.0 N Y Y Y Y Y Y Y
Fraxinus uhdei evergreen ash, shamel ash, tropical ash Eval No List No U B D 3.0 N N N N
Fumaria officinalis fumitory Eval No List No D C D 2.3 N N N N N N
Genista monspessulana French broom High No A A B 3.2 N N Y Y N Y Y
Geranium dissectum cutleaf geranium Moderate No C B A 1.7 N Y Y Y Y

Geranium molle dovefoot geranium Eval No List No D B A 1.7 N Y Y Y Y Y
Geranium retrorsum New Zealand geranium Eval No List No D B B 1.9 N N N Y N
Geranium robertianum herb-robert, Robert geranium Eval No List No D B C 2.8 N N N Y
Gleditsia triacanthos honey locust Eval No List No D B C 3.3 N N N N Y N
Glyceria declinata waxy mannagrass Moderate No B B B 1.9 N N N N Y N
Halogeton glomeratus halogeton Moderate No B A B 3.0 N N Y N N N
Hedera helix, H. canariensis English ivy, Algerian ivy High No A A A 2.7 N Y Y Y
Helichrysum petiolare licoriceplant Limited No C B C 2.0 N N N Y N Y N
Hirschfeldia incana shortpod mustard, summer mustard Moderate No B B A 1.9 N N N
Holcus lanatus common velvet grass Moderate No B B A 2.9 N Y Y Y Y Y
Hordeum marinum, H. murinum Mediterranean barley, hare barley, wall barley Moderate No B B A 2.8 Y
Hydrilla verticillata hydrilla High Alert A B C 3.2 N N N N Y Y Y
Hypericum canariense Canary Island hypericum Moderate Alert B B C 1.2 N N N N N
Hypericum perforatum common St. John's wort, klamathweed Moderate No B B B 3.7 N N N
Hypochaeris glabra smooth catsear Limited No C B B 3.1 N Y Y Y Y Y Y
Hypochaeris radicata rough catsear, hairy dandelion Moderate No C B A 2.2 N Y Y Y
Ilex aquifolium English holly Moderate Alert B B C 2.7 N N N Y N Y
Iris pseudacorus yellowflag iris Limited No C B C 2.3 N N Y Y Y Y N
Isatis tinctoria dyer's woad Moderate No B B A 3.0 N N Y N N Y
Kochia scoparia kochia Moderate No B C B 3.2 N N N Y Y N N
Lactuca serriola prickly lettuce Eval No List No D B B 3.1 Y Y Y Y Y Y
Lepidium latifolium perennial pepperweed, tall whitetop High No A A A 3.1 N Y Y Y
Leptospermum laevigatum Australian tea tree Eval No List No D C D 2.2 N N N Y N
Leucanthemum vulgare ox-eye daisy Moderate No B B B 2.5 N N N Y N Y
Ligustrum lucidum glossy privet Eval No List No D B C 3.1 N N N N N Y
Linaria genistifolia ssp. dalmatica Dalmation toadflax Moderate No B B B 2.8 N Y Y
Linaria vulgaris yellow toadflax, butter and eggs Moderate No B B B 2.3 N Y Y
Lobularia maritima sweet alyssum Limited No C B B 2.4 N N N Y N Y N
Lolium multiflorum Italian ryegrass Moderate No A B A 2.6 N Y Y Y Y
Lotus corniculatus birdsfoot trefoil Eval No List No D B B 2.8 N Y Y Y Y
Ludwigia hexapetala Uruguay water-primrose High Alert A B C 2.6 N N N Y N Y
Ludwigia peploides ssp. montevidensis creeping water-primrose High No A B B 2.5 N N N Y
Lupinus arboreus yellow bush lupine Native No B B B 3.5 N N N Y N Y
Lythrum hyssopifolium hyssop loosestrife Limited No C B B 3.0 N Y Y Y Y Y
Lythrum salicaria purple loosestrife High No A A B 3.8 N N N N Y Y
Malephora crocea coppery mesembryanthemum Eval No List No D C C 2.0 N N N Y
Marrubium vulgare white horehound Limited No C C B 2.8 N Y Y Y Y Y
Maytenus boaria mayten Eval No List No D C D 2.4 N N N Y N N N N
Medicago polymorpha California burclover Limited No C C A 2.8 N Y Y Y Y Y
Melilotus officinalis yellow sweetclover Eval No List No D C C 3.3 N Y Y Y Y
Mentha pulegium pennyroyal Moderate No C A A 2.7 N N N Y Y Y N
Mesembryanthemum crystallinum crystalline iceplant Moderate Alert B B C 3.7 N N N Y
Myoporum laetum myoporum Moderate No B B B 2.6 N N N Y N N N

Myosotis latifolia common forget-me-not Limited No C B B 2.2 N Y Y Y Y Y
Myriophyllum aquaticum parrotfeather High Alert A B C 2.8 N N Y Y N Y N
Myriophyllum spicatum Eurasian watermilfoil High No A A B 2.8 N N N Y Y N
Nerium oleander oleander Eval No List No D B D 2.6 N N Y N Y N N
Nicotiana glauca tree tobacco Moderate No B B B 2.5 N N N N Y Y
Nothoscordum gracile false garlic Eval No List No D B D 2.1 N N N Y Y N
Nymphaea odorata fragrant waterlily Eval No List No D B C 2.3 N N N N Y
Olea europaea olive Limited No C B B 2.5 N N N Y Y Y N Y N
Ononis alopecuroides foxtail restharrow Limited No C B C 2.2 N N N Y N N
Onopordum acanthium Scotch thistle High No B B B 2.9 N Y Y Y Y Y Y
Oxalis corniculata creeping woodsorrel Eval No List No D C C 2.2 Y Y Y Y Y
Oxalis pes-caprae Bermuda buttercup, buttercup oxalis, yellow oxalis Moderate No B B B 2.9 N
Parentucellia viscosa yellow glandweed, sticky parentucellia Limited No C B B 2.5 N N Y Y
Parkinsonia aculeata Mexican Palo Verde Eval No List No D B D 2.2 N N N N Y
Pennisetum clandestinum kikuyugrass Limited No C C B 2.3 N N N Y N Y N
Pennisetum setaceum crimson fountaingrass Moderate No B B B 2.9 N N N Y Y
Pennisetum villosum feathertop Eval No List No U B C 2.4 N N N N N N
Phalaris aquatica hardinggrass Moderate No B B B 2.6 N N N Y N Y
Phoenix canariensis Canary Island date palm Limited No C B D 2.3 N N N Y N N
Phragmites australis common reed Native No B B B 2.5 Y Y Y Y Y Y Y
Phytolacca americana common pokeweed Limited No C B C 2.8 N Y Y Y Y Y Y
Picris echioides bristly oxtongue Limited No C B B 2.4 N Y Y Y Y Y
Pinus radiata cultivars Monterey pine Native No B B B 2.6 N N N N N Y N
Piptatherum miliaceum smilograss Limited No C B B 2.4 N N N Y Y Y Y
Pistachia chinensis Chinese pistache Eval No List No U C D 0.9 N N N N N
Pittosporum undulatum Victorian box Eval No List No D C D 2.7 N N N N N N
Plantago coronopus cutleaf plantain Eval No List No U C B 1.7 N N N Y Y
Plantago lanceolata buckhorn plantain, English plantain Limited No C C B 2.1 N Y Y Y
Poa pratensis Kentucky bluegrass Limited No C B B 2.7 Y Y Y Y Y Y Y
Polygonum cuspidatum Japanese knotweed Moderate Alert B B D 2.7 N N Y Y Y
Polygonum sachalinense Sakhalin knotweed Moderate Alert B B D 2.5 N N Y Y Y
Polypogon monspeliensis and subspp. rabbitfoot polypogon, annual beardgrass Limited No C C B 2.3 Y
Y
Potamogeton crispus curlyleaf pondweed Moderate No B B B 3.2 N N N Y Y
Prunus cerasifera cherry plum Limited No C B B 1.8 N N N Y N Y N
Pyracantha angustifolia, P. crenulata, P. coccinea pyracantha, firethorn Limited No C B B 2.8 N N
Ranunculus repens creeping buttercup Limited No C C B 2.9 N N Y Y N Y
Raphanus sativus radish Limited No C C B 2.5 N Y Y Y Y Y Y
Retama monosperma bridal broom Moderate Alert B B C 1.8 N N N N N N
Ricinus communis castorbean Limited No C B B 2.5 N N Y Y Y N Y
Robinia pseudoacacia black locust Limited No C B B 2.8 N Y Y Y Y Y Y
Rubus armeniacus Himalaya blackberry High No A A A 3.0 N Y Y Y Y Y
Rumex acetosella red sorrel, sheep sorrel Moderate No B B A 2.3 N Y Y Y

Rumex crispus curly dock Limited No C C A 2.7 Y Y Y Y Y Y Y Y
Saccharum ravennae ravennagrass Moderate Alert B A C N N N N Y N
Salsola paulsenii barbwire Russian-thistle Limited No C C C 2.9 N N N N N
Salsola soda oppositeleaf Russian thistle Moderate No B B B 2.8 N N N Y N
Salsola tragus Russian-thistle Limited No C B B 2.8 Y Y Y Y Y Y Y Y
Salvia aethiopis Mediterranean sage Limited No C B B 2.5 N N N N N N
Salvinia molesta giant salvinia High Alert A A C 2.9 N N N Y N N N
Sapium sebiferum Chinese tallowtree Moderate Alert B B C 3.2 N N N Y Y
Saponaria officinalis bouncingbet Limited No C B C 2.5 N N N Y Y Y N
Schinus molle Peruvian peppertree Limited No C B B 2.5 N N N Y Y N Y
Schinus terebinthifolius Brazilian peppertree Limited No C B C 2.6 N N N N N
Schismus arabicus, Schismus barbatus mediterraneangrass Limited No B C A 2.3 N N N Y
Senecio jacobaea tansy ragwort Limited No C B B 2.8 N Y Y Y Y Y Y
Sesbania punicea red sesbania, scarlet wisteria High Alert A B C 3.2 N Y Y Y Y
Silybum marianum blessed milkthistle Limited No C C A 3.5 N Y Y Y Y Y
Sinapis arvensis wild mustard, charlock Limited No C C C 2.9 N Y Y Y Y Y
Sisymbrium irio London rocket Moderate No B B A 1.9 N N N N Y N
Solanum elaeagnifolium silverleaf nightshade Eval No List No D B C 2.8 N Y Y Y Y
Sonchus asper spiny sowthistle Eval No List No D B B 3.1 Y Y Y Y Y Y
Spartina alterniflora (and S. alterniflora x foliosa hybrids) smooth cordgrass and hybrids, Atlantic cordgrass High Alert A
Spartina anglica common cordgrass Moderate Alert B B D 3.4 N N N Y N
Spartina densiflora dense-flowered cordgrass High Alert A B D 3.3 N N N Y N
Spartina patens saltmeadow cord grass Limited No C C D 2.9 N N N Y N N N
Spartium junceum Spanish broom High No A B B 3.2 N Y Y Y Y Y Y
Stipa capensis Mediterranean steppegrass, twisted-awned speargrass Moderate Alert B B D 1.9 N N
Taeniatherum caput-medusae medusahead High No A A A 3.4 N Y Y Y Y Y
Tamarix aphylla athel tamarisk Limited No C B B 3.5 N N N N Y N N Y
Tamarix parviflora smallflower tamarisk High No A A B 3.1 N N Y Y Y N
Tamarix ramosissima saltcedar, tamarisk High No A A A 3.3 N N N Y Y Y
Tanacetum vulgare common tansy Moderate No B B B 2.3 N N N N N Y
Taraxacum officinale common dandelion Eval No List No D B B 2.8 N Y Y Y Y
Torilis arvensis hedgeparsley Moderate No C B B 2.3 N Y Y Y Y Y
Tragopogon dubius yellow salsify Eval No List No D C B 3.2 N N N Y Y N
Trifolium hirtum rose clover Moderate No C B B 2.8 N Y Y Y Y Y
Tropaeolum majus garden nasturtium Eval No List No D C C 1.4 N N N N N
Ulex europaeus gorse High No A B B 2.9 N N Y Y N Y Y N N
Ulmus pumila Siberian elm Eval No List No D B B 2.5 N N N N Y N Y
Undaria pinnatifida wakame Limited No C B C 3.3 N N N Y N N N Y
Verbascum thapsus common mullein, woolly mullein Limited No C B B 3.8 N N Y N N
Verbena bonariensis, Verbena litoralis tall vervain, seashore vervain Eval No List No D B C 2.1 N N
Vicia villosa hairy vetch Eval No List No D C B 2.8 N Y Y Y Y Y Y
Vinca major big periwinkle Moderate No B B B 2.8 N Y Y Y Y Y Y

Vulpia bromoides squirreltail fescue Eval No List No D C B 2.9 N Y Y Y Y
 Vulpia myuros rattail fescue Moderate No B B A 3.0 N Y Y Y Y Y Y
 Washingtonia robusta Mexican fan palm Moderate Alert B B C 2.7 N N N N N
 Watsonia meriana bulbil watsonia Limited No C B C 2.3 N N N N N Y N
 Zantedeschia aethiopica calla lily Limited No C B C 2.1 N N N Y N Y N

<http://www.cal-ipc.org/ip/inventory/weedlistExport2.php> 6/30/2010

Angeles National Forest: Weed Species to Eradicate

***Acacia sp.	Acacia
*Acroptilon repens	Russian knapweed
**Ageratina adenophora	Eupatory
**Ailanthus altissima	Tree of heaven
A*Alternanthera philoxeroides	Alligatorweed
*Arundo donax	Giant reed grass
A**Asphodelus fistulosus	Asphodel
**Atriplex semibaccata	Saltbush
*Brassica tournefortii	African mustard
**Carduus pycnocephalus	Italian thistle
*Centaurea solstitialis	Yellow star thistle
*Centaurea maculosa	Spotted Knapweed
**Centaurea melitensis	Tocalote
**Cirsium vulgare	Bull thistle
***Cistus creticus	rockrose
**Conium maculatum	Poison hemlock
*Cortaderia jubata/selloana	Pamapas grass
**Cynara cardunculus	artichoke thistle
*Delairea odorata	German Ivy
*Dipsacus sativus	Teasel
***Dimorphotheca sinuata	African daisy
A*Eichornia crassipes	Water hyacinth
**Elaeagnus angustifolius	Russian olive
*Erharta sp.	Veldtgrass
**Eucalyptus globulus	Blue gum
*Euphorbia dendroides	tree spurge
A*Euphorbia terracina	Geraltion carnation spurge
**Ficus carica	Fig
*Foeniculum vulgare	Fennel
***Fumaria officinalis	Fumitory
*Genista monosperulana	French broom
**Halogeton glomeratus	halogeton
*Hedera helix	English ivy
A*Hydrilla verticillata	Hydrilla
*Lathyrus latifolius	Perrenial sweetpea
*Lepidium latifolium	perennial pepperweed
*Linaria genistifolia ssp. dalmatica	Dalmatian toadflax
***Lobularia maritima	sweet alyssum
A*Ludwigia sp.	Water primrose
***Marrubium vulgare	horehound
A*Myriophyllum aquaticum	Parrotfeather
**Nicotiana glauca	Tree tobacco
***Olea europaea	Olive
**Pennisetum clandestinum	Kikuyu grass
**Pennisetum setaceum	Fountain grass

*** <i>Picris echioides</i>	Bristly ox-tongue
*** <i>Piptatherum miliaceum</i>	Smilo grass
** <i>Potamogeton crispus</i>	Curleaf pondweed
*** <i>Prunus cerasifera</i>	Cherry plum
*** <i>Pyracantha</i> sp.	pyracantha
*** <i>Raphanus sativus</i>	wild radish
A** <i>Retama monosperma</i>	Bridal broom
** <i>Ricinus communis</i>	Castorbean
** <i>Robinia pseudoacacia</i>	Black locust
*** <i>Rosemarinus officianalis</i>	Rosemary
* <i>Rubus discolor</i>	Himalayan blackberry
*** <i>Salsola tragus</i>	Russian thistle
*** <i>Salsola paulsenii</i>	Barbwire Russian thistle
*** <i>Saponaria officinalis</i>	Bouncing bet
*** <i>Schinus molle</i>	Peruvian pepper tree
*** <i>Silybum marianum</i>	milk thistle
* <i>Spartium junceum</i>	Spanish broom
* <i>Tamarix ramosissima</i>	Saltcedar
*** <i>Tradescantia fluminensis</i>	small-leaved spiderwort
*** <i>Tribulus terrestris</i>	Puncture vine
** <i>Ulnus parvifolia</i>	Chinese elm
** <i>Vinca major</i>	periwinkle
*** <i>Washingtonia robusta</i>	Mexican fan palm

Most Common Weed Species to Eradicate

* <i>Avena barbata/fatua</i>	wild oats
*** <i>Bassia hysopifolia</i>	five hook bassia
** <i>Brassica nigra</i>	black mustard
* <i>Bromus diandrus</i>	ripgut brome
* <i>Bromus hordeaceus</i>	smooth brome
* <i>Bromus madritensis</i> ssp <i>rubens</i>	red brome
* <i>Bromus tectorum</i>	cheat grass
* <i>Cnicus benedictus</i>	blessed thistle
*** <i>Convolvulus arvensis</i>	field bindweed
** <i>Cynodon dactylon</i>	Bermuda grass
*** <i>Descurania sophia</i>	tansy mustard
*** <i>Erodium</i> sp.	Filaree
** <i>Festuca arundinacea</i>	tall fescue
** <i>Hirschfeldia incana</i>	shortpod mustard
** <i>Holcus lanatus</i>	velvet grass
** <i>Hordeum murinum</i>	barley
*** <i>Lactuca serriola</i>	prickly lettuce
* <i>Lolium multiflorum</i>	Italian ryegrass
** <i>Lunaria annua</i>	moonwort
*** <i>Medicago polymorpha</i>	bur clover
** <i>Melilotus officinalis/alba</i>	sweetclover
** <i>Oxalis pes-caprae</i>	Bermuda buttercup
** <i>Phalaris aquatica</i>	Harding grass
*** <i>Poa bulbosa</i>	bulbous bluegrass
** <i>Polygonum monspeliensis</i>	rabbitfoot grass
*** <i>Ranunculus testicularis</i>	tuberculed crowfoot
* <i>Schismus barbatus</i>	Mediterranean grass
** <i>Sisymbrium</i> sp.	mustard
*** <i>Sonchus</i> sp	sow thistle
** <i>Verbascum thapsus</i>	wooly mullein
*** <i>Vulpia myuros</i>	rat-tail fescue

CAL-IPC List Categories

*Severe: Most Invasive Wildland Pest Plants; documented as aggressive invaders that displace natives and disrupt natural habitats.

**Moderate: Wildland Plants of Lesser Invasiveness; plants that spread less rapidly and cause a lesser degree of habitat disruption

***Limited: Wildland Plants of Limited Invasiveness; plants that have a limited distribution and impact on natural habitats or species for which there is not adequate information to describe its threat to wildlands

A Red Alert: Plants with potential to spread explosively, infestations currently localized or small

Table constructed from CAL-IPC invasive plant species listing of 2006: www.cal-ipc.org