

Merkel & Associates, Inc.

5434 Ruffin Road, San Diego, CA 92123

Tel: 858/560-5465 • Fax: 858/560-7779

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M&A #06-183-03

Mr. John Zagara
Zagara Mgt.
2041 San Elijo Ave.
Cardiff, CA 92007

**Biological Impact Analysis Letter Report
Linea del Cielo (Zagara Property)
(County of San Diego Case Number GPA 06-003/R06-006)**

Dear Mr. Zagara:

Merkel & Associates, Inc. biologist, Diana M. Jensen (County Approved Biological Consultant) has prepared the following biological resource letter report for the County of San Diego, written in accordance with the County of San Diego Report Format and Content Requirements [for] Biological Resources (September 26, 2006).

If you have any questions concerning this biological letter report, please do not hesitate to contact me on my direct line at (619) 884-5524 or djensen@merkelinc.com.

Sincerely,

Diana M. Jensen
Project Manager/County Approved Biological Consultant

Keith W. Merkel
Principal Consultant/County Approved Biological Consultant

cc: Mr. Doug Gibson, San Elijo Lagoon Conservancy, P.O. Box 230634, Encinitas, CA 92023

SUMMARY

Merkel & Associates, Inc. has prepared this biological impact analysis letter report for the proposed single-family residential development on the Zagara property (County of San Diego Case Number GPA 06-003/R06-006), at the request of Mr. John Zagara. The purpose of this report is to document the existing biological conditions within the project study area; identify potential impacts to biological resources that could result from implementation of the proposed project; and recommend measures to avoid, minimize, and/or mitigate significant impacts consistent with federal, state, and local rules and regulations including the California Environmental Quality Act (CEQA) and the County of San Diego Resource Protection Ordinance (RPO).

The project site [Assessors Parcel Number (APN) 268-130-43] is located within an unincorporated area of the County of San Diego, within unsectioned lands of the historic Rancho San Dieguito, Township 13 South, Range 3 West of the San Bernardino Base and Meridian; U.S. Geological Survey 7.5' Rancho Santa Fe, California Quadrangle.

The proposed project is the rebuilding of a pre-existing on-site structure into a single-family residence and an additional guesthouse on the 2.59-acre private property. The property is located adjacent to the Ewing Preserve (APN 268-130-42), which is owned by the Rancho Santa Fe Foundation. Due to the location of the concrete slab and building foundation from the former structure and the required maintenance of a 100-foot fuel management zone around the future proposed structures, the fuel modification zone would need to extend off-site onto the adjacent Ewing Preserve in order to meet the required setbacks. Due to different General Plan Land Use Designations and associated zoning between the property and the Ewing Preserve, a boundary adjustment would be necessary to meet the required setbacks; therefore, a General Plan Amendment and Rezone is proposed to complete the Boundary Adjustment and assure that the adjusted lots meet the General Plan and Zoning requirements.

The majority of the property consists of native southern maritime chaparral, which is considered a naturally rare vegetation community because it has a restricted distribution limited to sandstone substrates along the coastal fog belt. The vegetation supports several sensitive flora species, as well as several species of reptiles, birds, and mammals. The maritime chaparral continues off-site to the west as part of the Ewing Preserve, as well as to the northeast and east for a few hundred feet before becoming isolated by rural development. In addition, there is a tributary along the eastern boundary of the property that flows due south, between rural development and roadways, onto the deep sandy alluvium floor of Osuna Valley and eventually connects with the San Dieguito River. The overall quality of the vegetation is high based on the predominance of native species present, and the wildlife habitat is considered to have high value based on the adjacency to the Ewing Preserve.

The project site is embedded within an urbanized area comprised of relatively large parcels consisting of houses and out buildings that are surrounded by dense ornamental landscaping. The

existing network of roads and developed parcels has fragmented the landscape into isolated natural areas. The project site is located adjacent to the Ewing Preserve, but this open space habitat is also generally isolated from other natural areas. Despite these habitat disturbances, the resident native fauna can move between the remnant natural areas by using modified habitats that lack substantial barriers to wildlife movement.

The proposed project has been designed to minimize potential impacts to the surrounding rare, southern maritime chaparral habitat by rebuilding the single-family residence within the disturbed area of the pre-existing on-site structure, and as part of the Boundary Adjustment, proposing the exchange of 0.71-acre of relatively disturbed land for 0.73-acre of high quality habitat that would be conserved as part of the Ewing Preserve.

Impacts to biological resources would result from development of the single-family residence and additional guesthouse, as well as the required 100-foot fuel management zone around each proposed structure. Impacts to southern maritime chaparral would be significant per the County Guidelines for Determining Significance [for] Biological Resources (September 26, 2006).

Mitigation for significant impacts to southern maritime chaparral are proposed to be accomplished through 2 measures: 1) through exchange of higher quality habitat on the eastern portion of the property to the Ewing Preserve/Rancho Santa Fe Foundation as part of the Boundary Adjustment, and placement of deed restrictions over this portion of the preserve, written to the satisfaction of the County to ensure that the biological resources would be conserved in perpetuity; and 2) through dedication of an on-site biological open space easement, which would be considered the preferred biological alternative to off-site mitigation based on the high value of the biological resources on-site, consisting of rare native habitat and several special status species.

The proposed project would result in cumulatively considerable impacts to southern maritime chaparral under CEQA; however, implementation of the project avoidance and mitigation measures would reduce impacts to a level below significance under CEQA, and ensure consistency with the County RPO and Guidelines for Determining Significance [for] Biological Resources (September 26, 2006).

INTRODUCTION, PROJECT DESCRIPTION, LOCATION, SETTING

Purpose of the Report

Merkel & Associates, Inc. (M&A) has prepared this biological impact analysis letter report for the proposed single-family residential development on the Zagara property (County of San Diego Case Number GPA 06-003/R06-006), at the request of Mr. John Zagara, written in accordance with the County of San Diego Report Format and Content Requirements [for] Biological Resources (September 26, 2006). The purpose of this report is to document the existing biological conditions within the project study area; identify potential impacts to biological resources that could result from

implementation of the proposed project; and recommend measures to avoid, minimize, and/or mitigate significant impacts consistent with federal, state, and local rules and regulations including the California Environmental Quality Act (CEQA) and County of San Diego Resource Protection Ordinance (RPO).

Project Location

The project site lies within unsectioned lands of the historic Rancho San Dieguito, Township 13 South, Range 3 West of the San Bernardino Base and Meridian; U.S. Geological Survey (USGS) 7.5' Rancho Santa Fe, California Quadrangle (Latitude 33° 00' 57.53" N, Longitude 117° 12' 30.35" W; Universal Transverse Mercator coordinates 480614^E, 3652882^N, Zone 11) (Figure 1).

The project site is located within an unincorporated area of the County of San Diego (County), at 5853 Linea del Cielo, Rancho Santa Fe, California, 92067 [Assessors Parcel Number (APN) 268-130-43], approximately 0.25 miles southwest of the intersection of Linea del Cielo and La Granada (Thomas Guide map page 1168, D4).

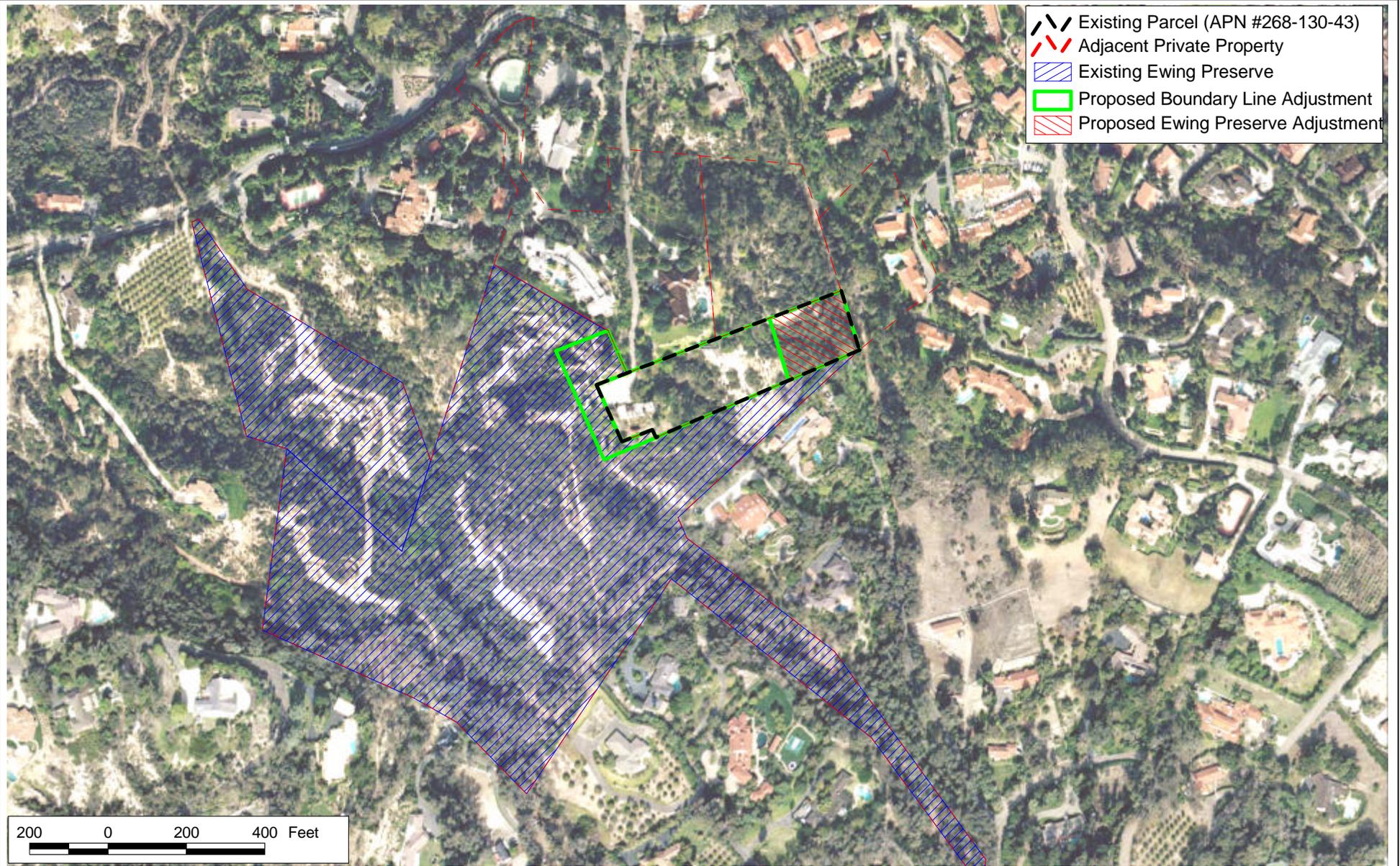
Access to the project site from the commercial center of Rancho Santa Fe, located at the intersection of Linea del Cielo and La Granada, is southwest on Linea del Cielo approximately 0.25 mile, and then south on an unnamed paved spur road that dead ends after approximately 600 feet at the property.

Project Description

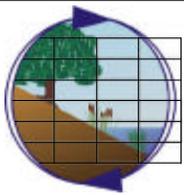
The 2.59-acre private property currently consists of a pre-existing on-site structure that includes remnants of a single-family residential house. The old structure has been razed with only the block foundation, sub-flooring for the ground floor, and on the south end of the structure, a few vertical walls remaining. A 2-car, detached carport supported by 4 corner columns is also still intact. All that remains of the ornamental plantings surrounding the old foundation are mostly dead, indistinguishable shrubs with ice plant and eucalyptus, surviving without subsidized watering. The remaining portions of the property beyond the ornamental plantings consist of native habitat.

The proposed project is the rebuilding of the single-family residence and an additional guesthouse on the 2.59-acre private property. The property has a General Plan Land Use Designation of (17) Estate Residential and is zoned RR.5 (Rural Residential-minimum lot size of 2 acres). Due to the location of the foundation from the former structure, as well as the required maintenance of a 100-foot fuel management zone around any future proposed structures (Rancho Santa Fe Fire Protection District 2006), a boundary adjustment is necessary to meet the required setbacks.

The property is located adjacent to the "Ewing Preserve" (APN 268-130-42) along the western and southern boundaries, which is owned by the Rancho Santa Fe Foundation (Figure 2). The Rancho Santa Fe Foundation proposes to give an additional 31,000 square feet (0.71-acre) from the Ewing Preserve to the owner along the western boundary of the property, in exchange for 32,000 square feet



- Existing Parcel (APN #268-130-43)
- Adjacent Private Property
- Existing Ewing Preserve
- Proposed Boundary Line Adjustment
- Proposed Ewing Preserve Adjustment



Proposed Project Plan
Zagara Property

Figure 2

(0.73-acre) of native habitat along the eastern boundary of the property; however, the Ewing Preserve has a General Plan Land Use Designation of (24) Impact Sensitive and a zoning classification of S-80 (Open Space-minimum lot size of 8 acres), therefore, due to the different General Plan Land Use Designations and associated zoning, a General Plan Amendment and Rezone would be required to complete the Boundary Adjustment and assure that the adjusted lots meet the General Plan and Zoning requirements.

The proposed General Plan Amendment and Rezone would be consistent with the existing land use designation, as it would maintain the minimum lot size required for the 2 properties, and would allow for the residential structures on land designated for residential development while not decreasing the preservation of the designated “Impact Sensitive” lands of the Ewing Preserve.

The piece of land that would be exchanged to the Ewing Preserve, as well as an additional on-site biological open space easement and 100-foot limited building zone easement, are proposed to mitigate significant impacts to sensitive habitat.

Survey Methodologies

Study Area Description

In accordance with the County biological resource mapping guidelines (September 26, 2006), the biological study area includes 100 feet beyond the existing 2.59-acre property, as well as the portion of the Ewing Preserve proposed for exchange with the Boundary Adjustment.

Literature and Data Review

Historical and currently available biological literature and data pertaining to the project area was reviewed prior to the initiation of the field investigation. This review included: 1) a determination of the soil types mapped within the study area based on the Soil Survey Geographic (SSURGO) data set for the San Diego County Area, California (NRCS 2006); 2) review of California Natural Diversity Database (CNDDDB) and U.S. Fish and Wildlife Service (USFWS) Geographical Information System (GIS) records for the project vicinity, and 3) examination of the list of sensitive species with a potential to occur on the property, provided in the County first iteration project review letter, dated September 28, 2006.

Survey(s) Conducted

General Biological Survey

The entire portion of the study area located on the existing property and the Ewing Preserve was surveyed on-foot; the portions of the study area that extend beyond the existing parcel boundary onto private property were visually surveyed only, from the property boundary line.

The existing vegetation types within the study area were delineated onto a 1" = 100' scale, color aerial photograph (2006) of the project site, with a topographical overlay. The vegetation types were classified according to the Holland (1986) and Oberbauer (2005) classification system, and were mapped in accordance with the County biological resource mapping requirements (September 26, 2006).

A list of detectable flora and fauna species was recorded in a field notebook. Plant identifications were either resolved in the field or later determined through verification of voucher specimens, and wildlife species were determined through direct observation (aided by binoculars), identification of songs, call notes and alarm calls, or by detection of sign (e.g., burrows, tracks, scat, etc.).

In addition, a directed search for sensitive species on the property was conducted. The locations of sensitive species identified within the study area were delineated on the field map, and as feasible, the number or density of individuals was recorded. The potential for sensitive species to occur within the study area, but not identified during the survey, was assessed based on the existing biological conditions, as well as historical and currently available species occurrence and location data.

The scientific nomenclature used for the floral and faunal resources were noted according to the following references: flora, Rebman and Simpson (2007); butterflies, Opler and Wright (1999 and 2006); amphibians and reptiles, Crother et al. (2001 and 2003); birds, American Ornithologists' Union (1998 and 2006); and mammals, Wilson and Reeder (1993).

Photographs of the project area were taken to record the biological resources present within the study area, and data collected from the survey were digitized into ArcView GIS Version 3.2a.

Focused Rare Plant Surveys

Focused rare plant surveys were conducted to determine the potential presence of sensitive flora on the project site, and specifically, Orcutt's spineflower (*Chorizanthe orcuttiana*) and short-leaf dudleya (*Dudleya blochmaniae* ssp *brevifolia*), both listed, endangered species with a low potential to occur on the property. Based on local reference sites, the surveys were initiated at the start of the blooming season for Orcutt's spineflower when reproductive structures (i.e., flowers and fruits) and distinctive leafy parts are present and most easily detected. Potentially suitable habitat and/or soils on the project site were surveyed twice. A list of detectable flora species was recorded in a field notebook, and plant identifications were resolved in the field.

Survey Dates, Times, and Conditions

Table 1 summarizes the survey dates, times, and conditions for the biological surveys conducted.

Table 1. Summary of Survey Dates, Times, and Conditions

Survey	Date	Time	Conditions (start to end)	Biologists
General Biology	2006 Nov 20	1315 - 1445	Weather: 0%-0% cc Wind: 1-1BS Temperature: 68°-74° F	Kyle L. Ince
General Biology	2006 Nov 30	1015 - 1520	Weather: 100%-100% cc Wind: 0-1 BS Temperature: 65°-72° F	Kyle L. Ince, Edward L. Ervin
Focused Rare Plant Survey #1	2008 Apr 14	1145 - 1530	Weather: 0% cc Wind: 0-5 BS Temperature: 77° F	Kyle L. Ince
Focused Rare Plant Survey #2	2008 May 7	1230 - 1515	Weather: 100% cc Wind: 0 BS Temperature: 58° F	Kyle L. Ince

cc = cloud cover; BS = Beaufort scale; F = Fahrenheit

Survey Limitations

Biological inventories are generally subject to various survey limitations. Depending on the season and time of day during which field surveys are conducted, some species may not be detected due to temporal species variability. The biological surveys conducted for this project were diurnal and performed during the winter season of 2006, and a portion of the study area, located beyond the parcel boundary, was not surveyed on-foot; therefore, some species of annual plants, invertebrates, reptiles, migratory birds, and crepuscular and nocturnal wildlife may not have been detected.

Environmental Setting

The property is situated at the top of a south-facing slope, at an elevation of 245 feet above mean sea level. Underlying surficial geology is mapped as Pleistocene marine and marine terrace deposits (Strand 1962), and on-site soils are mapped as Loamy alluvial land-Hueruero complex, 9 to 50 present slopes, severely eroded (NRCS 2006). Surrounding land uses consist of the Ewing Preserve to the northwest, west and south of the property, and rural developed, private land and native habitat to the north and northeast of the property, respectively (see Figure 2).

HABITATS/VEGETATION COMMUNITIES

Five vegetation types were identified on the property during the biological surveys (Table 2; Figure 3). A complete list of the floral species observed and the faunal species observed or detected within the study area during the biological surveys has been included with this report in Appendices 1 and 2, respectively.

Table 2. Habitats/Vegetation Communities

Vegetation Type	Holland/Oberbauer Code	Existing (acres)
Emergent Wetland	52440	0.01
Southern Maritime Chaparral	37C30	1.67
Eucalyptus Woodland	11100	0.01
Non-Native Vegetation	11000	0.11
Urban/Developed	12000	0.79
Total:		2.59

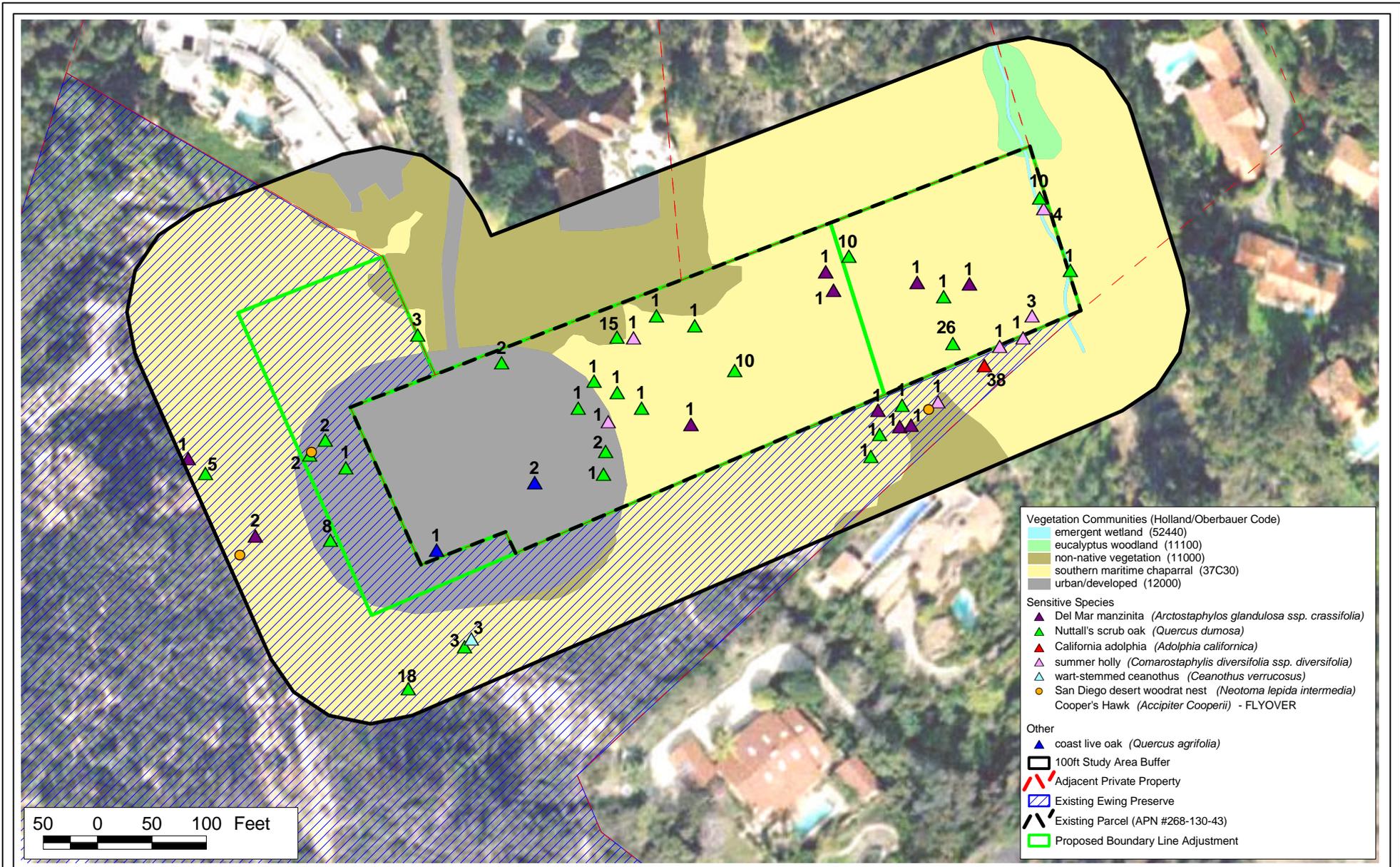
The majority of the property consists of native southern maritime chaparral, which is considered a naturally rare vegetation community because it has a restricted distribution limited to sandstone substrates along the coastal fog belt. The vegetation supports several sensitive flora species, as well as several species of reptiles, birds, and mammals. The maritime chaparral continues off-site to the west as part of the Ewing Preserve, as well as to the northeast and east for a few hundred feet before becoming isolated by rural development. In addition, there is a tributary along the eastern boundary of the property that flows due south, between rural development and roadways, onto the deep sandy alluvium floor of Osuna Valley and eventually connects with the San Dieguito River. The overall quality of the vegetation is high based on the predominance of native species present, and the wildlife habitat is considered to have high value based on the adjacency to the Ewing Preserve.

Emergent Wetland

Emergent wetland habitat occurs within the tributary along the eastern portion of the property. Floral components include cocklebur (*Xanthium strumarium*), sweetclover (*Melilotus* sp.), bermuda-buttercup (*Oxalis pes-caprae*), and curly dock (*Rumex crispus*).

Southern Maritime Chaparral

Deep-rooted, evergreen shrubs, approximately 1 to 3 meters in height, dominate the southern maritime chaparral on the property. The most common species is chamise (*Adenostoma fasciculatum*), and sub-dominant shrubs include Nuttall’s scrub oak (*Quercus dumosa*), mission manzanita (*Xylococcus bicolor*), Mojave yucca (*Yucca schidigera*), toyon *Heteromeles arbutifolia*,



Biological Resources Map
Zagara Property

Figure 3

and lemonadeberry (*Rhus integrifolia*). Lower-growing shrubs include flat-top buckwheat (*Eriogonum fasciculatum* var. *fasciculatum*), black sage (*Salvia mellifera*), coast monkeyflower (*Mimulus aurantiacus* var. *puniceus*), and bush-rue (*Cneoridium dumosum*). A shaded east-facing slope located near the eastern quarter of the property includes low-growing vine-like shrubs such as shinyleaf mahonia (*Berberis pinnata* ssp. *pinnata*) and honeysuckle (*Lonicera subspicata* var. *denudate*). Openings between shrubs include ferns such as bird's foot cliff-brake (*Pellaea mucronata* var. *mucronata*), succulents including ladies-fingers (*Dudleya edulis*), forbs including tread lightly (*Cardionema ramosissima*), and grasses such as foothill needlegrass (*Nassella lepida*).

In addition, planted, non-native eucalyptus trees (*Eucalyptus* sp.) were relatively abundant within the eastern and western portions of the property; however, these areas were mapped as southern maritime chaparral based on the predominance of maritime chaparral constituents within the understory.

The maritime chaparral also supports several sensitive shrub species, including Del Mar manzanita (*Arctostaphylos glandulosa crassifolia*), summer holly (*Comarostaphylis diversifolia diversifolia*), and Nuttall's scrub oak, which were found in various areas throughout the property.

Wildlife noted utilizing the chaparral habitat included several species of birds and mammals. The most commonly noted birds included California quail (*Callipepla californica*) and bushtit (*Psaltriparus minimus*), and a Cooper's hawk (*Accipiter cooperii*) was observed flying high above the site. Mammal scat from coyote (*Canis latrans*) and desert cottontail (*Sylvilagus audubonii*), as well as woodrat scat and nests, were also readily detectable.

Eucalyptus Woodland

One grove of eucalyptus trees was mapped at the northeastern corner of the property. Unlike the other eucalyptus trees found on the property, the understory in this area primarily consists of leaf-litter and is relatively devoid of native vegetation.

Non-Native Vegetation

Drought tolerant, non-native vegetation, which was planted as landscaping by previous property owners, has persisted and is restricted to the area surrounding the original house. Areas mapped as non-native vegetation include portions of the landscape that support established ornamental plantings such as golden wattle (*Acacia longifolia*), bank catclaw (*Acacia redolens*), hottentot-fig (*Carpobrotus edulis*), Peruvian pepper tree (*Schinus molle*), ngaio (*Myoporum laetum*), and Canary Island date palm (*Phoenix canariensis*). Other species found within these areas include common weeds such as flax-leaf fleabane (*Conyza bonariensis*) and native plants with weedy tendencies such as telegraph weed (*Heterotheca grandiflora*).

It should be noted that 3 coast live oak (*Quercus agrifolia*) trees were identified south of the remnant, housing pad among non-native vegetation. The locations of the oak trees were mapped (see Figure 3); however, these oak trees do not form a woodland habitat with several different habitat

components and niches suitable for supporting an abundance of wildlife; and therefore, were not delineated as a separate coast live oak woodland vegetation community.

Urban/Developed

Areas mapped as urban/developed include the driveway, remaining foundation of the previous house, and the existing freestanding carport. Western fence lizards (*Sceloporus occidentalis*) were observed sunning on the concrete foundation.

In addition, under direction from the County, the land associated with the fire clearing within 100 feet of the pre-existing building pads has been re-mapped as urban/developed.

SPECIAL STATUS SPECIES

State CEQA Guidelines §15380 (Title 14, Chapter 3, Article 20) define “endangered, rare or threatened species” as “species or subspecies of animal or plant or variety of plant” listed under the Code of Federal Regulations, Title 50, Part 17.11 or 17.12 (Volume 1, Chapter I) or California Code of Regulations, Title 14, Sections 670.2 or 670.5 (Division 1, Subdivision 3, Chapter 3), or a species not included in the above listings but that can be shown to be “endangered” meaning “when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors” or “rare” meaning “although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens or the species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered ‘threatened’ as that term is used in the Federal Endangered Species Act”. State CEQA guidelines Appendix G, Section IV generally refers to species that fall under the above criteria as “special status species”.

The County Report Guidelines for Determining Significance [for] Biological Resources (September 26, 2006) defines “sensitive species” as “those species that are included on generally accepted and documented lists of plants and animals of endangered, threatened, candidate or of special concern by the Federal Government or State of California; MSCP Rare, Narrow Endemic Animal Species, Narrow Endemic Plant Species, and County Sensitive Plant and Animal Species; and those species that meet the definition of ‘Rare or Endangered Species’ under §15380 of the State CEQA Guidelines.”

Special Status Plant Species Present within the Study Area

Five special status flora species were identified within the study area during the biological surveys (Table 3; see Figure 3). Three species, including Del Mar manzanita, summer holly, and Nuttall’s scrub oak were identified on the project site; and 2 additional species, California adolphia (*Adolphia californica*) and wart-stemmed ceanothus (*Ceanothus verrucosus*) were identified within the study

area, but off-site, in the Ewing Preserve. Per the County Report Format and Content Requirements [for] Biological Resources (September 26, 2006), CNDDDB forms for these sensitive plant occurrences have been completed and submitted to the CDFG, and are included with this report in Appendix 3.

Table 3. Special Status Plant Species Observed within the Study Area

Scientific Name Common Name¹	Sensitivity Codes and Status²	Habitat Preferences/ Requirements	Verified within Study Area (Yes/No) (direct/indirect evidence)
<i>Adolphia californica</i> California adolphia	CNPS List: 2 CNDDDB: Special Plant County List: B	Native, deciduous, short and spiny shrub that is often intermixed with Diegan coastal sage scrub, but occasionally occurs in peripheral chaparral habitats, particularly hillsides near creeks; usually associated with xeric locales where shrub canopy reaches 4 or 5 feet in height; during late summer and fall it may be virtually leafless, and therefore not readily apparent from a distance, but its spiny stems can be noted at close range (CNPS 2007, Reiser 2001).	Yes, verified within the study area, just off-site in the Ewing Preserve; direct observation. A population of approximately 38 individuals observed off-site, within the Ewing Preserve.
<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i> Del Mar manzanita	ESA: FE CNPS List: 1B CNDDDB: Special Plant MSCP Covered Species County List: A	Native, evergreen shrub that typically occurs in relatively open, coastal chaparral on eroding sandstone substrate where the chaparral is relatively low growing; at occasional inland sites it grows in denser mixed chaparral vegetation (CNPS 2007, Reiser 2001).	Yes, verified on-site, as well as off-site, in the Ewing Preserve; direct observation. Several single, plants observed throughout the study area, totaling 11 individuals.
<i>Ceanothus verrucosus</i> wart-stemmed ceanothus	CNPS List: 2 CNDDDB: Special Plant MSCP Covered Species County List: B	Native, evergreen, sizable shrub that prefers coastal chaparral intermixed with chamise and mission manzanita; typically, is a dominant shrub within the vegetation community where it occurs; it may be particularly vigorous on north-facing slopes, but can accommodate more xeric aspects (CNPS 2007, Reiser 2001).	Yes, verified within the study area, in the Ewing Preserve; direct observation. Three individual plants observed off-site, within the Ewing Preserve.

Scientific Name Common Name ¹	Sensitivity Codes and Status ²	Habitat Preferences/ Requirements	Verified within Study Area (Yes/No) (direct/indirect evidence)
<i>Comarostaphylis diversifolia</i> <i>diversifolia</i> summer holly	CNPS List: 1B CNDDDB: Special Plant County List: A	Native, evergreen shrub that prefers mesic north-facing slopes in southern mixed chaparral; rugged steep drainages seem to be a preferred location for isolated shrubs (CNPS 2007, Reiser 2001).	Yes, verified on-site, as well as off-site, in the Ewing Preserve; direct observation. Several single, plants observed throughout the study area, totaling 12 individuals.
<i>Quercus dumosa</i> Nuttall's scrub oak	CNPS List: 1B CNDDDB: Special Plant County List: A	Native, evergreen shrub that prefers coastal chaparral with a relatively open canopy cover in flat terrain; on north-facing slopes this shrub may grow in dense monotypic stands (CNPS 2007, Reiser 2001).	Yes, verified on-site, as well as off-site, in the Ewing Preserve; direct observation. Several plants observed throughout the study area, totaling 129 individuals, with a couple locations consisting of larger populations (i.e., 10 to 25 individuals).

¹Nomenclature from Rebman and Simpson 2007

²Sensitivity Codes and Status

Endangered Species Act (ESA) Listing Codes: FE = Federally-listed as Endangered; FT = Federally-listed as Threatened; FPE = Federally proposed for listing as Endangered; FPT = Federally proposed for listing as Threatened; FPD = Federally proposed for delisting; FC = Federal candidate species (former Category 1 candidates); SC = Species of concern (list established by the National Marine Fisheries Service [NMFS] effective April 15, 2004); Delisted species are monitored for 5 years

California Endangered Species Act (CESA) Listing Codes: SE = State-listed as Endangered; ST = State-listed as Threatened; SCE = State candidate for listing as Endangered; SCT = State candidate for listing as Threatened; SCD = State candidate for de-listing; SR = California Rare Species

California Department of Fish and Game (DFG) Codes: CSC = California special concern species; FP = California fully protected species

California Native Plant Society (CNPS) Codes: List of Species Designation: 1A = Plants presumed extinct in California; 1B = Plants rare, threatened, or endangered in California and elsewhere; 2 = Plants rare, threatened, or endangered in California, but more common elsewhere; 3 = Plants about which more information is needed (a review list); 4 = Plants of limited distribution (a watch list)

California Natural Diversity Database (CNDDDB) Codes: Special Plants = A general term that refers to all of the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status; these taxa fall into one of the above categories and/or one or more of the following categories: 1) Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the CEQA Guidelines; 2) A Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS), or U.S. Forest Service (USFS) Sensitive Species; 3) Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring, but not currently threatened with extirpation; 4) Populations in California that may be on the periphery of a taxon's range, but are threatened with extirpation in California; 5) Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats, vernal pools, etc.); and 6) Taxa designated as a special status, sensitive, or declining species by other state or federal agencies, or non-governmental organization (NGO) (e.g., The World Conservation Union [IUCN], American Fisheries Society [AFS], Audubon Watch List; California Department of Forestry and Fire Protection [CDF], U.S. Department of Agriculture [USDA] Forest Service [FS], Fish and Wildlife Service Birds of Conservation Concern [FWS BCC], The American Bird Conservancy Green List [ABC Green List], The U.S. Bird Conservation [USBC] Watch List, The Western Bat Working Group [WBWG], and The Xerces Society)

County of San Diego Codes: Plants; List A = Plants rare, threatened or endangered in California and elsewhere; List B = Plants rare, threatened or endangered in California but more common elsewhere; List C = Plants which may be quite rare, but need more information to determine their true rarity status; List D = Plants of limited distribution and are uncommon, but not presently rare or endangered
References: CDFG 2007 and County 2006

Occurrence Potential of Special Status Plant Species on the Project Site

The potential for seventeen additional special status flora species to occur on the project site is evaluated in Table 4 below, based on the list provided in the County first iteration review letter, dated September 28, 2006.

Table 4. Occurrence Potential of Special Status Plants on the Project Site

Scientific Name Common Name ¹	Sensitivity Codes and Status ²	Habitat Preferences/ Requirements	Verified On-Site (Yes/No)	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<p><i>Baccharis vanessae</i> Encinitas baccharis</p>	<p>ESA: FT CESA: SE CNPS List: 1B CNDDB: Special Plant MSCP Narrow Endemic MSCP Covered Species County List: A</p>	<p>Native, deciduous shrub that prefers mature but relatively low-growing chaparral; at inland locales may be associated with large granitic boulders (CNPS 2007; Reiser 2001).</p>	<p>No</p>	<p>Not Present</p>	<p>Perennial shrub species that should have been detected if present.</p>
<p><i>Chorizanthe orcuttiana</i> Orcutt's spineflower</p>	<p>ESA: FE CESA: SE CNPS List: 1B CNDDB: Special Plant County List: A</p>	<p>Native, annual herb that prefers openings with a distinctive loose sandy substrate (CNPS 2007; Reiser 2001).</p>	<p>No</p>	<p>Not Present</p>	<p>This species was presumed extinct until it was re-discovered by C. Reiser and K. Ince in 1991. Although suitable habitat occurs on-site, its potential for occurring would be considered low given its rarity. This species was not detected during the spring, focused rare plant surveys.</p>
<p><i>Chorizanthe parryi</i> var. <i>fernandina</i> San Fernando Valley spineflower</p>	<p>ESA: FC CESA: SE CNPS List: 1B CNDDB: Special Plant County List: A</p>	<p>Annual herb that occurs in sandy, coastal scrub (CNPS 2007; Reiser 2001).</p>	<p>No</p>	<p>Not Present</p>	<p>This species once occurred in Los Angeles and Orange counties and, until recently was presumed extinct. It is not considered native to San Diego County. This species was not detected during the spring, focused rare plant surveys.</p>

Scientific Name Common Name¹	Sensitivity Codes and Status²	Habitat Preferences/ Requirements	Verified On-Site (Yes/No)	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Chorizanthe polygonoides longispina</i> long-spined spineflower	CNPS List: 1B CNDDDB: Special Plant County List: A	Native, annual herb typically found on small clay lenses that are largely devoid of shrubs; can be occasionally seen on the periphery of vernal pool habitat and even on the periphery of montane meadows near vernal seeps (CNPS 2007; Reiser 2001).	No	Not Present	This species is typically associated with clay lenses not observed on-site. This species was not detected during the spring, focused rare plant surveys.
<i>Chorizanthe procumbens</i> prostrate spineflower	CNPS Delisted	Native plant typically found in sandy openings in chamise chaparral; however, it may also occur in sage scrub; regularly occupies recently disturbed microhabitats such as the shoulders of dirt roads or areas of lightly brushed chaparral (Reiser 2001).	No	Not Present	There is potentially suitable habitat on-site within openings of chaparral habitat; however, this species was not detected during the spring, focused rare plant surveys.
<i>Coreopsis maritima</i> San Diego sea-dahlia	CNPS List: 2 CNDDDB: Special Plant County List: B	Native, perennial herb that prefers sandstone cliffs near the ocean; moist sea breezes are presumably a significant factor in providing optimal habitat for this perennial with semi-succulent leaves and fistulous stems; typically occurs on highly eroding slopes where competition from other shrubs is limited (CNPS 2007; Reiser 2001).	No	Not Present	Although a perennial herb, this species is often not readily observed unless it is in flower during its blooming season from Mar-May. There is potentially suitable chaparral habitat on-site; however, this species was not detected during the spring, focused rare plant surveys.

Scientific Name Common Name¹	Sensitivity Codes and Status²	Habitat Preferences/ Requirements	Verified On-Site (Yes/No)	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Corethrogyne filaginifolia</i> var. <i>linifolia</i> Del Mar Mesa sand aster	CNPS List: 1B CNDDDB: Special Plant County List: A	Native, perennial herb that prefers coastal mixed chaparral in sandy, open locales; seems to thrive on partially disturbed sandy soils indicating that habitat can be created given the proper geology and soils (CNPS 2007; Reiser 2001).	No	Not Present	Perennial species that should have been detected if present.
<i>Dichondra occidentalis</i> western dichondra/ ponyfoot	CNPS List: 4 CNDDDB: Special Plant County List: D	Native, small, cryptic perennial, rhizomatous herb that occurs in southern mixed chaparral, chamise chaparral, Diegan coastal sage scrub, rocky outcrops in grasslands, and especially in recently exposed areas of post-burn habitat; often grows almost completely hidden at the base of leafy shrubs (CNPS 2007, Reiser 2001)	No	Not Present	Potentially suitable habitat on-site beneath the understory of the chaparral habitat; however, this species was not detected during the spring, focused rare plant surveys.
<i>Dudleya blochmaniae</i> ssp <i>brevifolia</i> short-leaf dudleya	CESA: SE CNPS List: 1B CNDDDB: Special Plant MSCP Narrow Endemic MSCP Covered Species County List: A	Native, cryptic, perennial herb that prefers open areas of chamise chaparral or Torrey Pine forest on Torrey sandstone with soils mapped as Carlsbad gravelly sandy loam (CNPS 2007; Resier 2001).	No	Not Present	Although suitable habitat occurs on-site, its potential for occurring would be considered low given its rarity within the County. This species was not detected during the spring, focused rare plant surveys.

Scientific Name Common Name¹	Sensitivity Codes and Status²	Habitat Preferences/ Requirements	Verified On-Site (Yes/No)	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Horkelia cuneata</i> ssp. <i>puberula</i> mesa horkelia	CNPS List: 1B CNDDDB: Special Plant County List: A	Native, perennial herb that prefers sandy or gravelly areas in chaparral and sage scrub (CNPS 2007, Reiser 2001).	No	Not Present	Perennial plant species that should have been detected if present.
<i>Mimulus palmeri</i> Palomar monkey flower	CNPS List: 4 CNDDDB: Special Plant County List: D	Native, small but colorful annual herb that typically occurs in lower montane coniferous forest and chaparral (CNPS 2007, Reiser 2001).	No	Not Present	This species is typically found at montane elevations; however, there are herbarium specimens at the San Diego Natural History Museum from various locales throughout the County including Encinitas. This species was not detected during the spring, focused rare plant surveys.
<i>Mucronea californica</i> California spineflower	CNPS List: 4 CNDDDB: Special Plant County List: D	Native, ephemeral, annual herb that grows in very sandy microhabitats in coastal sage scrub, chaparral, and dunes; it is also reported from grasslands and cismontane woodlands (CNPS 2007, Reiser 2001).	No	Not Present	In San Diego County, only one extant population is known to occur and is found on Point Loma. Herbarium specimens also include Torrey Pines, Pacific Beach and the San Luis Rey Valley. This species was not detected during the spring, focused rare plant surveys.

Scientific Name Common Name ¹	Sensitivity Codes and Status ²	Habitat Preferences/ Requirements	Verified On-Site (Yes/No)	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Ophioglossum californicum</i> California adder's-tongue fern	CNPS List: 4 CNDDDB: Special Plant County List: D	Native, rhizomatous herb that typically occurs along the periphery of vernal pools, seeps, and vernal moist locales; on Mira Mesa this plant is found in an unusual, very open chamise chaparral (Redding cobbly loam), on flatlands which have unusually mesic conditions for brief periods in the spring (CNPS 2007, Reiser 2001).	No	Not Present	Typical habitat for this species is lacking on-site. This species was not detected during the spring, focused rare plant surveys.
<i>Orobanche parishii</i> spp. <i>brachyloba</i> beach/short-lob broom-rape	CNPS List: 4 CNDDDB: Special Plant County List: D	Native, parasitic, perennial herb that occurs in coastal bluff scrub and coastal dunes; on Point Loma the habitat (soils mapped as Terrace Escarpments) is a wind-swept, low-growing sage scrub with sandstone openings; at Torrey Pines it was reported at the edge of the pine canopy on a slope facing the ocean (CNPS 2007, Reiser 2001).	No	Not Present	Typical habitat for this species is lacking on-site. This species was not detected during the spring, focused rare plant surveys.
<i>Pentachaeta aurea</i> golden-rayed pentachaeta	CNPS List: 4 CNDDDB: Special Plant County List: D	Native, annual herb that occurs in mesic montane grasslands and sage scrub (CNPS 2007, Reiser 2001).	No	Not Present	Typical habitat for this species is not found on-site. This species was not detected during the spring, focused rare plant surveys.

<i>Scientific Name</i> Common Name¹	Sensitivity Codes and Status²	Habitat Preferences/ Requirements	Verified On-Site (Yes/No)	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Piperia cooperi</i> Cooper's rein orchid	CNPS List: 4 CNDDDB: Special Plant County List: D	Native, perennial herb that may utilize shallow soils on small rockfalls adjacent to watercourses (CNPS 2007, Reiser 2001)	No	Not Present	Typical habitat for this species is not found on-site. This species was not detected during the spring, focused rare plant surveys.
<i>Selaginella cinerascens</i> mesa spike moss	CNPS Delisted County List: D	Native, perennial, prostrate, ground-cover herb that occurs in undisturbed chaparral and Diegan costal sage scrub (Reiser 2001)	No	Not Present	Perennial species that should have been detected if present.

Note: The species addressed in this table are from the list provided in the County first iteration review letter, dated September 28, 2006.

¹Nomenclature from Rebman and Simpson 2007

²Sensitivity Codes and Status

Endangered Species Act (ESA) Listing Codes: FE = Federally-listed as Endangered; FT = Federally-listed as Threatened; FPE = Federally proposed for listing as Endangered; FPT = Federally proposed for listing as Threatened; FPD = Federally proposed for delisting; FC = Federal candidate species (former Category 1 candidates); SC = Species of concern (list established by the National Marine Fisheries Service [NMFS] effective April 15, 2004); Delisted species are monitored for 5 years

California Endangered Species Act (CESA) Listing Codes: SE = State-listed as Endangered; ST = State-listed as Threatened; SCE = State candidate for listing as Endangered; SCT = State candidate for listing as Threatened; SCD = State candidate for de-listing; SR = California Rare Species

California Department of Fish and Game (DFG) Codes: CSC = California special concern species; FP = California fully protected species

California Native Plant Society (CNPS) Codes: List of Species Designation: 1A = Plants presumed extinct in California; 1B = Plants rare, threatened, or endangered in California and elsewhere; 2 = Plants rare, threatened, or endangered in California, but more common elsewhere; 3 = Plants about which more information is needed (a review list); 4 = Plants of limited distribution (a watch list)

California Natural Diversity Database (CNDDDB) Codes: Special Plants = A general term that refers to all of the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status; these taxa fall into one of the above categories and/or one or more of the following categories: 1) Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the CEQA Guidelines; 2) A Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS), or U.S. Forest Service (USFS) Sensitive Species; 3) Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring, but not currently threatened with extirpation; 4) Populations in California that may be on the periphery of a taxon's range, but are threatened with extirpation in California; 5) Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats, vernal pools, etc.); and 6) Taxa designated as a special status, sensitive, or declining species by other state or federal agencies, or non-governmental organization (NGO) (e.g., The World Conservation Union [IUCN], American Fisheries Society [AFS], Audubon Watch List; California Department of Forestry and Fire Protection [CDF], U.S. Department of Agriculture [USDA] Forest Service [FS], Fish and Wildlife Service Birds of Conservation Concern [FWS BCC], The American Bird Conservancy Green List [ABC Green List], The U.S. Bird Conservation [USBC] Watch List, The Western Bat Working Group [WBWG], and The Xerces Society)

County of San Diego Codes: Plants; List A = Plants rare, threatened or endangered in California and elsewhere; List B = Plants rare, threatened or endangered in California but more common elsewhere; List C = Plants which may be quite rare, but need more information to determine their true rarity status; List D = Plants of limited distribution and are uncommon, but not presently rare or endangered

References: CDFG 2007 and County 2006

Special Status Animal Species Present within the Study Area

Two special status faunal species were identified within the study area during the biological surveys (Table 5; see Figure 3). A Cooper's hawk was observed flying over the project site, and woodrat nests, presumed to be that of the San Diego desert woodrat (*Neotoma lepida intermedia*), were observed on the project site, as well as off-site, but within the study area, in the Ewing Preserve. The Cooper's hawk may utilize the eucalyptus and oak trees on the property as perching sites for foraging; however, based on the lack of dense woodland habitat, it is not expected to nest on-site, and no nests were observed during the biological surveys. The San Diego desert woodrat was detected based on the observation of woodrat nests with the structure and components more typical of the San Diego desert woodrat versus the dusky-footed woodrat (*Neotoma fuscipes*). Since the CNDDDB tracks only nesting sites of the Cooper's hawk, and the presence of the San Diego desert woodrat was not confirmed by direct observation, no CNDDDB forms have been completed for submittal to the CDFG.

Table 5. Special Status Animal Species Observed within the Study Area

Scientific Name Common Name*	Sensitivity Codes and Status ²	Habitat Preferences/ Requirements	Verified within Study Area (Yes/No) (direct/indirect evidence)
BIRDS			
* <i>Accipiter cooperii</i> Cooper's hawk	DFG: CSC CNDDDB: Special Animal MSCP Covered Species County Group: 1	A breeding, year-long resident of San Diego County that frequently builds nests, consisting of a stick platform lined with bark typically 20 to 50 feet above the ground, in dense stands of live oak, riparian deciduous or other forest habitats located near water and along broken woodland habitat and edges, where it can perch under cover and hunt prey, including amphibians, reptiles, and small birds and mammals (CDFG 2005).	Yes, verified within the study area; direct observation. One individual observed flying over the project site. Low potential for nesting on-site based on the lack of dense woodland habitat, and no nests were observed; however, the on-site eucalyptus and oak trees could provide foraging perch sites adjacent to the chaparral habitat with available prey.
MAMMALS			
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	DFG: CSC CNDDDB: Special Animal County Group: 2	Mainly nocturnal, but also crepuscular and occasionally diurnal small mammal that is active year-long and prefers coastal scrub or juniper/sagebrush habitat, with moderate to dense canopies, particularly in areas of rock outcrops and rocky cliffs and slopes; nests are constructed of twigs, sticks, cactus parts, and rocks, dependent on the availability of surrounding building materials, and are usually built against a rock crevice or in the lower branches of trees; prefers to eat the buds, fruits, seeds, bark, leaves, and young shoots of live oak, chamise, and buckwheat, and is dependent on prickly pear for water balance in desert habitats (CDFG 2005).	No, indirect observation within the study area. Woodrat nests and scat observed on-site and within the Ewing Preserve. It can be difficult to distinguish between the nests of San Diego desert woodrats and dusky-footed woodrats, but the San Diego desert woodrat typically builds nests in areas with rock crevices and surrounding succulent vegetation, and the nests typically contain pieces of cactus vegetation; versus the dusky-footed woodrat, which can be found in denser habitat and typically constructs nests out of just sticks. It is presumed that the San Diego desert woodrat occurs within the study area based on the structure of the nests observed.

*Sensitivity status applies to nesting/wintering sites only (or burrow sites for the burrowing owl)

¹Sensitivity Codes and Status

Endangered Species Act (ESA) Listing Codes: FE = Federally-listed as Endangered; FT = Federally-listed as Threatened; FPE = Federally proposed for listing as Endangered; FPT = Federally proposed for listing as Threatened; FPD = Federally proposed for delisting; FC = Federal candidate species (former Category 1 candidates); SC = Species of concern (list established by the National Marine Fisheries Service [NMFS] effective April 15, 2004); Delisted species are monitored for 5 years

California Endangered Species Act (CESA) Listing Codes: SE = State-listed as Endangered; ST = State-listed as Threatened; SCE = State candidate for listing as Endangered; SCT = State candidate for listing as Threatened; SCD = State candidate for de-listing; SR = California Rare Species

California Department of Fish and Game (DFG) Codes: CSC = California special concern species; FP = California fully protected species

California Natural Diversity Database (CNDDDB) Codes: Special Animals = A general term that refers to all of the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status; these taxa fall into one of the above categories and/or one or more of the following categories: 1) Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the CEQA Guidelines; 2) A Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS), or U.S. Forest Service (USFS) Sensitive Species; 3) Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring, but not currently threatened with extirpation; 4) Populations in California that may be on the periphery of a taxon's range, but are threatened with extirpation in California; 5) Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats, vernal pools, etc.); and 6) Taxa designated as a special status, sensitive, or declining species by other state or federal agencies, or non-governmental organization (NGO) (e.g., The World Conservation Union [IUCN], American Fisheries Society [AFS], Audubon Watch List; California Department of Forestry and Fire Protection [CDF], U.S. Department of Agriculture [USDA] Forest Service [FS], Fish and Wildlife Service Birds of Conservation Concern [FWS BCC], The American Bird Conservancy Green List [ABC Green List], The U.S. Bird Conservation [USBC] Watch List, The Western Bat Working Group [WBWG], and The Xerces Society)

County of San Diego Codes: Animals; Group 1 = Animals rare, threatened or endangered in California and elsewhere; Group 2 = Animals rare, threatened or endangered in California but more common elsewhere

References: CDFG 2006; County 2006

Occurrence Potential of Special Status Animal Species on the Project Site

The potential for 23 additional special status fauna species to occur on the project site is evaluated in Table 6 below, based on the list provided in the County first iteration review letter, dated September 28, 2006. Four special status fauna species, all designated as California Special Concern species, are considered to have a high potential to occur on the project site based on the presence of potentially suitable habitat, including orange-throated whiptail (*Aspidoscelis hyperythra*), San Diego horned lizard (*Phrynosoma coronatum blainvillii*), Dulzura pocket mouse (*Chaetodipus californicus femoralis*), and northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*).

The federally-listed, endangered quino checkerspot butterfly (*Euphydryas editha quino*) was historically documented in the project region in 1930; however, this region has been substantially fragmented by rural development since that time, and this species is not expected to occur on-site based on the lack of habitat connectivity to existing quino populations, which are located over 30 miles to the southeast and northeast of the site (USFWS 2007). No quino populations are presently known to occur west of Interstate 15. Although the project site is located adjacent to a larger area of open space in the Ewing Preserve, the native habitat within the preserve is still isolated by surrounding rural development from a regional perspective, and this area would not be expected to support a quino metapopulation without connectivity to additional potentially suitable habitat patches and dispersal areas where gene flow would be possible from an existing source population. The project site is not located within a USFWS recovery unit (USFWS 2003, Figure 3), and is located outside of the current USFWS recommended survey area (USFWS 2005). For these reasons, this species is not anticipated to occur on the site and no further consideration for this species is recommended.

Table 6. Occurrence Potential of Special Status Animals on the Project Site

<i>Scientific Name</i> Common Name*	Sensitivity Codes and Status ²	Habitat Preferences/ Requirements	Verified On-Site (Yes/No)	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
INVERTEBRATES					
<i>Danaus plexippus</i> Monarch butterfly	CNDDDB: Special Animal County Group: 2	Utilizes open habitats including fields, meadows, weedy areas, marshes, and roadsides; caterpillar host plants include milkweeds (<i>Asclepius syriaca</i> , <i>A. incarnata</i> , and <i>A. speciosa</i>), which contain cardiac glycosides/poisons that are stored in the bodies of both the caterpillar and adult, and are distasteful to birds and other vertebrate predators; adults nectar from a variety of flowers; migrate to wintering sites in central Mexico and California coast from Aug-Oct (Opler 2006)	No	Low Potential	Limited potentially suitable habitat present in the project area, and no host plants observed on-site.
<i>Megathymus yuccae</i> ssp. <i>harbisoni</i> coastal giant skipper	County Group: 2	Utilizes coastal dunes, open yucca flats, desert canyons, open woodland, grasslands and old fields; caterpillar host plants include are various <i>Yucca</i> species; adults do not feed but males take moisture at mud; typically has one brood from mid Feb-May (Opler 2006).	No	Moderate Potential	<i>Yucca schidigera</i> occurs on-site among the chaparral community species.
<i>Phobetus robinsoni</i> Robinson's rain beetle	County Group: 2	Very limited research data available for this species.	No	Unknown	Insufficient information available to provide a response.
AMPHIBIANS					
<i>Spea (=Scaphiopus)</i> <i>hammondii</i> western spadefoot toad	DFG: CSC CNDDDB: Special Animal County Group: 2	Breeding and egg laying occur almost exclusively in shallow, temporary pools formed by heavy winter rains, typically within grassland habitat (CDFG 2005).	No	Low Potential	The project site has sloped topography with no ephemeral pool habitat.

<i>Scientific Name</i> Common Name*	Sensitivity Codes and Status²	Habitat Preferences/ Requirements	Verified On-Site (Yes/No)	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
REPTILES					
<i>Aspidoscelis hyperythra beldingi</i> orange-throated whiptail	DFG: CSC CNDDDB: Special Animal MSCP Covered Species County Group: 2	Diurnal reptile from early spring to late summer that prefers washes and other sandy areas with patches of brush and rocks in coastal scrub and chaparral (CDFG 2005).	No	High Potential	Sparse chaparral on-site with sandstone substrate provides potentially suitable habitat.
<i>Aspidoscelis tigris stejnegeri</i> coastal western whiptail	CNDDDB: Special Animal County Group: 2	Primarily diurnal reptile that is most common in and around dense vegetation in a variety of habitats including chaparral, desert scrub, desert wash, alkali scrub, and grasslands (CDFG 2005).	No	Moderate Potential	Potentially suitable areas of denser chaparral habitat present on-site.
<i>Charina trivi</i> rosy boa	CNDDDB: Special Animal County Group: 2	Mostly nocturnal, but sometimes crepuscular and occasionally diurnal snake that prefers habitats with a mixture of a brushy cover and rocky soil with moderate to dense vegetation, in chaparral-covered hillsides and canyons, as well as desert scrub flats with good cover and in the mountains; greatest activity occurs from late-spring to mid-summer (CDFG 2005).	No	Low Potential	On-site soil is ancient marine sediment that lacks rock outcroppings with associated mammal burrow systems.
<i>Crotalus ruber ruber</i> northern red-diamond rattlesnake	DFG: CSC CNDDDB: Special Animal County Group: 2	Occurs in chaparral, woodland, and arid desert habitats in rocky areas and dense vegetation; active from mid-spring to mid-fall (CDFG 2005).	No	Moderate Potential	Small mammal burrows in sandy substrate within patches of dense vegetation on-site could provide potentially suitable habitat.
<i>Diadophis punctatus similis</i> San Diego ringneck snake	CNDDDB: Special Animal County Group: 2	Often encountered during the day under boards and flat rocks in open, moist, relatively rocky areas within chaparral and grassland habitats (CDFG 2005).	No	Moderate Potential	Accumulating organic matter under ornamental plantings in neighboring parcels likely provide suitable mesic habitat for stable populations.

Scientific Name Common Name*	Sensitivity Codes and Status²	Habitat Preferences/ Requirements	Verified On-Site (Yes/No)	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Phrynosoma coronatum blainvillii</i> San Diego horned lizard	DFG: CSC CNDDDB: Special Animal MSCP Covered Species County Group: 2	Diurnal lizard that occurs in a variety of open habitats, including riparian areas, sage scrub and grasslands, especially in sandy areas, washes, and flood plains that provide camouflage and areas of loose soils to burrow for protection from predators (CDFG 2005).	No	High Potential	Sparse chaparral with sandstone substrate on-site provides potentially suitable habitat.
<i>Salvadora hexalepis virgultea</i> coast patch-nosed snake	DFG: CSC CNDDDB: Special Animal County Group: 2	Diurnal snake that occurs in a variety of habitats including chaparral, desert scrub, washes, sandy flats, and rocky areas (CDFG 2005).	No	Moderate Potential	Sparse chaparral with sandstone substrate on-site provides potentially suitable habitat.
BIRDS					
* <i>Accipiter striatus</i> sharp-shinned hawk	DFG: CSC CNDDDB: Special Animal County Group: 1	Winter resident in San Diego County that prefers, but is not restricted to riparian habitats and forages in openings at habitat edges; nests are platforms or cups in dense foliage against tree trunks approximately 6 to 80 feet above the ground (CDFG 2005).	No	Low Potential	The project site lacks larger open patches in chaparral for safe raptor pursuit and capture of prey.
<i>Amphispiza belli belli</i> Bell's sage sparrow	DFG: CSC CNDDDB: Special Animal County Group: 1	Year-long resident in western San Diego County that breeds in fairly dense chaparral and desert scrub habitats; nests are cups of dry twigs and herb stems located on the ground beneath a shrub (CDFG 2005).	No	Low Potential	The project site lacks areas of contiguous dense chaparral typically utilized by this species.
MAMMALS					
<i>Antrozous pallidus</i> pallid bat	DFG: CSC CNDDDB: Special Animal County Group: 2	Nocturnal species that occurs in a wide variety of habitats, including grasslands, shrublands, woodlands, and forests, but prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging (CDFG 2005).	No	Low Potential	Limited typical habitat and roosting sites found within the study area.

Scientific Name Common Name*	Sensitivity Codes and Status²	Habitat Preferences/ Requirements	Verified On-Site (Yes/No)	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Chaetodipus californicus femoralis</i> Dulzura (California) pocket mouse	DFG: CSC CNDDDB: Special Animal County Group: 2	Nocturnal species that occurs in a variety of habitats, including coastal scrub, chaparral and grasslands, typically in brushy areas along grass-chaparral edge (CDFG 2005).	No	High Potential	The project site and adjacent areas consist of a matrix of dense to open chaparral.
<i>Chaetodipus fallax fallax</i> northwestern San Diego pocket mouse	DFG: CSC CNDDDB: Special Animal County Group: 2	Nocturnal species that occurs in a variety of habitats, including coastal scrub, chaparral and grasslands, typically in brushy areas along grass-chaparral edge (CDFG 2005).	No	High Potential	The project site and adjacent areas consist of a matrix of dense to open chaparral.
<i>Eumops perotis</i> western mastiff bat	DFG: CSC CNDDDB: Special Animal County Group: 2	Nocturnal species that occurs in many open, semi-arid to arid habitats, including woodlands, coastal scrub, grasslands, chaparral, desert scrub, and urban areas; roosts in crevices in vertical cliff faces, high buildings, trees, and tunnels (CDFG 2005).	No	Low Potential	Lack of potentially suitable roosting sites in the project area, particularly rocky cliffs with vertical faces required to drop off to take flight.
<i>Felis concolor browni</i> Yuma mountain lion	DFG: CSC CNDDDB: Special Animal MSCP Covered Species County Group: 2	Require extensive areas of riparian vegetation and brushy stages of various habitats, with interspersions of irregular terrain, rocky outcrops, and tree/brush edges where prey, typically mule deer, are present (CDFG 2005).	No	Low Potential	Despite the large amount of dense ornamental vegetation, project site is within an urban setting with a network of roads.
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	DFG: CSC CNDDDB: Special Animal County Group: 2	Diurnal and crepuscular herbivore that occurs in herbaceous and desert-shrub areas and open, early stages of forest and chaparral habitats (CDFG 2005).	No	Low Potential	The project site consists of steep to moderate topography, and natural eroded gullies.

<i>Scientific Name</i> Common Name*	Sensitivity Codes and Status²	Habitat Preferences/ Requirements	Verified On-Site (Yes/No)	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	DFG: CSC CNDDDB: Special Animal County Group: 2	Nocturnal species that occurs in woodlands, and desert scrub, riparian, wash, alkali scrub habitats, and prefers rock crevices in cliffs for roosting (CDFG 2005).	No	Low Potential	No steep rocky cliff roosting habitat on site; forages at tree canopy height.
<i>Nyctinomops macrotis</i> big free-tailed bat	DFG: CSC CNDDDB: Special Animal County Group: 2	Cliff rooster, prefers rugged, rocky canyons, feeds in multiple habitats including over water	No	Low Potential	Lack of potentially suitable roosting sites in the project area, particularly rocky cliffs with vertical faces required to drop off to take flight.
<i>Odocoileus hemionus fuliginata</i> southern mule deer	MSCP Covered Species County Group: 2	Typically crepuscular species, but may be active during the day or night, that occurs in early to intermediate successional stages of most forest, woodland, and brush habitats, but prefers a mosaic of various-aged vegetation that provides woody cover, meadow and shrubby openings, and free water (CDFG 2005).	No	Moderate Potential	In areas that contain remnant native vegetation deer will take advantage of missing predators and can feed on ornamental vegetation available year round.
<i>Taxidea taxus</i> American badger	DFG: CSC CNDDDB: Special Animal MSCP Covered Species County Group: 2	Nocturnal and diurnal carnivore that is most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils for digging burrows for cover (CDFG 2005).	No	Low Potential	The project site lacks low gradient topography and friable soils in an urbanized area.

Note: The species addressed in this table are from the list provided in the County first iteration review letter, dated September 28, 2006.

*Sensitivity status applies to nesting/wintering sites only (or burrow sites for the burrowing owl)

¹Sensitivity Codes and Status

Endangered Species Act (ESA) Listing Codes: FE = Federally-listed as Endangered; FT = Federally-listed as Threatened; FPE = Federally proposed for listing as Endangered; FPT = Federally proposed for listing as Threatened; FPD = Federally proposed for delisting; FC = Federal candidate species (former Category 1 candidates); SC = Species of concern (list established by the National Marine Fisheries Service [NMFS] effective April 15, 2004); Delisted species are monitored for 5 years

California Endangered Species Act (CESA) Listing Codes: SE = State-listed as Endangered; ST = State-listed as Threatened; SCE = State candidate for listing as Endangered; SCT = State candidate for listing as Threatened; SCD = State candidate for de-listing; SR = California Rare Species

California Department of Fish and Game (DFG) Codes: CSC = California special concern species; FP = California fully protected species

California Natural Diversity Database (CNDDDB) Codes: Special Animals = A general term that refers to all of the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status; these taxa fall into one of the above categories and/or one or more of the following categories: 1) Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the CEQA Guidelines; 2) A Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS), or U.S. Forest Service (USFS) Sensitive Species; 3) Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring, but not currently threatened with extirpation; 4) Populations in California that may be on the periphery of a taxon's range, but are threatened with extirpation in California; 5) Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats, vernal pools, etc.); and 6) Taxa designated as a special status, sensitive, or declining species by other state or federal agencies, or non-governmental organization (NGO) (e.g., The World Conservation Union [IUCN], American Fisheries Society [AFS], Audubon Watch List; California Department of Forestry and Fire Protection [CDF], U.S. Department of Agriculture [USDA] Forest Service [FS], Fish and Wildlife Service Birds of Conservation Concern [FWS BCC], The American Bird Conservancy Green List [ABC Green List], The U.S. Bird Conservation [USBC] Watch List, The Western Bat Working Group [WBWG], and The Xerces Society)

County of San Diego Codes: Animals; Group 1 = Animals rare, threatened or endangered in California and elsewhere; Group 2 = Animals rare, threatened or endangered in California but more common elsewhere

References: CDFG 2006; County 2006

JURISDICTIONAL WETLANDS AND WATERWAYS

The tributary along the eastern portion of the property is jurisdictional as waters of the U.S. under Section 404 of the Clean Water Act, and as a streambed under Section 1600 et seq. of the CDFG Code and the County RPO. The jurisdictional boundaries were not formally delineated as part of the biological surveys because this tributary is located within the portion of the existing property proposed to be given to the Ewing Preserve as part of the Boundary Adjustment, and thus, would not be directly impacted by the proposed single-family residential development.

The tributary includes poor physical functions for groundwater recharge, flood-flow alteration, and production export based on the relatively narrow width of the drainage (approximately 4 feet), lack of significant flow, and steep gradient.

The biological functions and values of the tributary are considered to be low to moderate based on the source of water that the drainage provides for wildlife within high quality, native habitat. This value is limited by the fact that the wetlands are poorly developed, the resource is ephemeral, and the site is constrained and fragmented by rural development although it ultimately connects downstream (approximately 7,000 feet) to the San Dieguito River.

OTHER UNIQUE FEATURES/RESOURCES

The project site is embedded within an urbanized area comprised of relatively large parcels consisting of houses and out buildings that are surrounded by dense ornamental landscaping. The existing network of roads and developed parcels has fragmented the landscape into isolated natural areas. The project site is located adjacent to the Ewing Preserve, but this open space habitat is also generally isolated from other natural areas. Despite these habitat disturbances, the resident native fauna can move between the remnant natural areas by using modified habitats (e.g., dense ornamental landscaping, established horse trails, golf course greens) that lack barriers (e.g., tall fences, large paved areas, brightly lit areas). In addition, the project site consists of naturally rare, maritime chaparral habitat on a sandstone substrate that supports several sensitive plant species, as well as an ephemeral drainage along the eastern boundary of the property that ultimately connects downstream to the San Dieguito River wildlife corridor.

SIGNIFICANCE OF PROJECT IMPACTS AND PROPOSED MITIGATION

State CEQA Guidelines §15065 (a) (Title 14, Chapter 3, Article 5) and Appendix G state, “A lead agency shall find that a project may have a significant effect on the environment” if:

- “The project has the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal

community; substantially reduce the number or restrict the range of an endangered, rare or threatened species; or eliminate important examples of the major periods of California history or prehistory.”

- “The project has possible environmental effects which are individually limited but cumulatively considerable.”

Appendix G, Section IV of the State CEQA Guidelines lists the following Issues for the lead agency to address when evaluating the significance of potential impacts to biological resources. “Would the project:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS?
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFG or USFWS?
- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means?
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?”

The County has developed Guidelines for Determining Significance [for] Biological Resources (September 26, 2006) pursuant to State CEQA Guidelines §15064.7, which states, “Each public agency is encouraged to develop and publish thresholds of significance [to use] in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. Thresholds of significance to be adopted for general use as part of the lead agency’s environmental review process must be adopted by ordinance, resolution, rule, or regulation, and developed through a public review process and be supported by substantial evidence.”

Per the County Report Format and Content Requirements [for] Biological Resources (September 26, 2006, this biological letter report provides the following analysis to identify all potential significant

impacts that could result to biological resources from implementation of the proposed project, and addresses significance pursuant to CEQA and the County Guidelines for Determining Significance [for] Biological Resources (September 26, 2006), in accordance with the Issues listed under CEQA Guidelines Appendix G, Section IV.

Impact Definitions

Potential project impacts are categorized pursuant to CEQA as direct, indirect, or cumulative impacts:

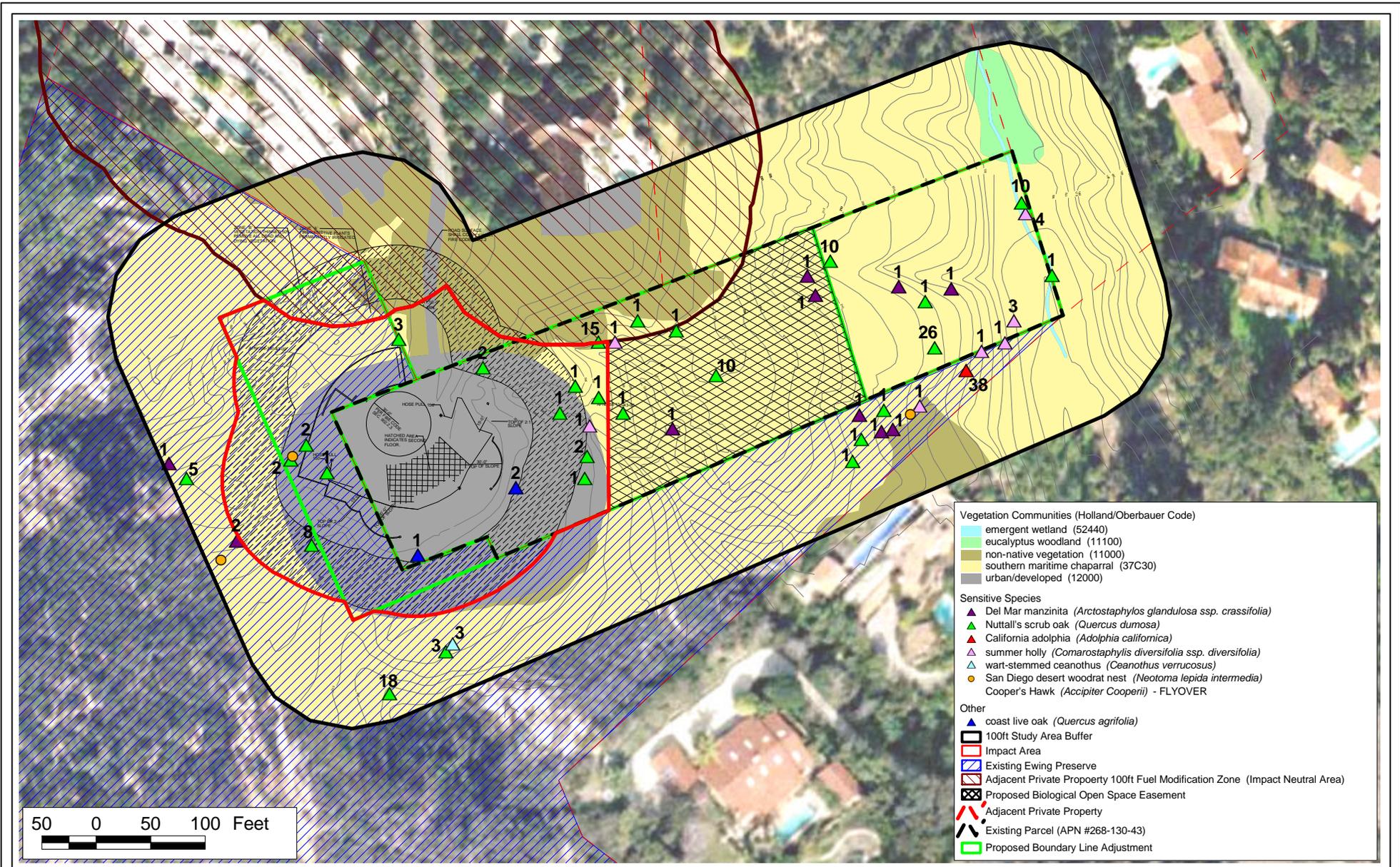
- CEQA Guidelines §15358 (a) (1) and (b) (Title 14, Chapter 3, Article 20) defines a “direct impact or primary effect” as “effects which are caused by the project and occur at the same time and place” and relate to a “physical change” in the environment.
- CEQA Guidelines §15358 (a) (2) and (b) (Title 14, Chapter 3, Article 20) defines an “indirect impact or secondary effect” as “effects which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable” and relate to a “physical change” in the environment.
- CEQA Guidelines §15355 (a) (Title 14, Chapter 3, Article 20) defines cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.”

Direct, indirect, and cumulative impacts can be described as either permanent or temporary (County 2006). “Permanent impacts to biological resources would result from a permanent direct loss of those resources as an area is converted to another condition (e.g., developed, ornamental landscaping, agriculture, etc.), or an indirect [loss] (e.g., edge effects) that [would] persist and [be] permanent. Direct impacts may be considered temporary when an area could be restored to its pre-impact condition, thus providing habitat and wildlife functions and values effectively equal to the functions and values that existed before the area was impacted.”

Proposed Project Impacts and Avoidance/Minimization Measures

The proposed project has been designed to minimize potential impacts to the surrounding rare, southern maritime chaparral habitat by rebuilding the single-family residence within the disturbed area of the pre-existing on-site structure, and as part of the Boundary Adjustment, proposing the exchange of 0.71-acre of relatively disturbed land for 0.73-acre of high quality habitat that would be conserved as part of the Ewing Preserve.

Impacts to biological resources would result from development of the single-family residence and additional guesthouse, as well as the required 100-foot fuel management zone around each proposed structure (Figure 4). The fuel management zone includes a required 50-foot clearance area from all proposed structures (Zone A), which shall be planted with fire restive plants and permanently



Biological Impacts Map
Zagara Property

Figure 4

irrigated, and an additional Zone B, which would entail a 50 percent thinning of dead/dying vegetation within 50 feet beyond Zone A.

Two areas, one on-site and one off-site, would be considered impact neutral, which is an area within 100 feet of an existing permitted and occupied structure that is not calculated as impacted, but that cannot be credited toward mitigation credits (County 2006) (Figure 4). A portion of the required 100-foot fuel management zone extends off-site to the north, onto adjacent private property and land within the Ewing Preserve. The portions of the fuel management zone that overlap with the approved fuel management zones for the 2 adjacent private properties (i.e., 100 feet from the existing houses) would be considered impact neutral. In addition, the approved 100-foot fuel modification zone for one of the off-site, adjacent existing houses extends on-site. This area is located outside of the proposed project impact area, but has not been included within the proposed on-site biological open space.

Special Status Species

Guidelines for Determination of Significance

Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS?

An impact would be determined significant per the County Guidelines for Determining Significance [for] Biological Resources (September 26, 2006) if implementation of the proposed project would result in any of the following conditions:

- A.** The project would impact one or more individuals of a species listed as federally or state endangered or threatened;
- B.** The project would impact the regional long-term survival of a County List A or B plant species, or a County Group I animal species, or a species listed as a state Species of Special Concern;
- C.** The project would impact the regional long-term survival of a County List C or D plant species, or a County Group II animal species;
- D.** The project may impact arroyo toad (*Bufo californicus*) aestivation or breeding habitat;
- E.** The project would impact golden eagle habitat;
- F.** The would result in loss of functional foraging habitat for raptors;
- G.** The project would increase noise and/or nighttime lighting to a level above ambient proven to adversely affect sensitive species;
- H.** The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly

valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or an area that supports multiple wildlife species;

I. The project would increase human access or predation or competition from domestic animals, pests or exotic species to levels that would adversely affect sensitive species; or

J. The project would impact the nesting success of the coastal cactus wren (*Campylorhynchus brunneicapillus*), coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), tree-nesting raptors, ground-nesting raptors, golden eagle, or light-footed clapper rail (*Rallus longirostris levipes*) through grading, clearing, fire fuel modification, and/or other noise generating activities such as construction.

Analysis of Project Impacts

A. The proposed project would not result in impacts to species listed as federally or state endangered or threatened.

B. Three individuals of Nuttall's scrub oak, designated as a sensitive species on County List A, would be directly impacted as a result of vegetation clearing within fuel management Zone A. These impacts would not be expected to substantially reduce the habitat or the number, or restrict the range, of the species to a level affecting the species' population stability in the region; and therefore, would not be significant under CEQA or per the County Guidelines for Determining Significance [for] Biological Resources (September 26, 2006).

The proposed project would not result in direct impacts to summer holly, designated as sensitive species on County List A.

Although the Cooper's hawk, designated as sensitive species in Group I, was observed flying over the project site, this species has a low potential to nest within the study area; therefore, the proposed project would not be expected to result in impacts to this species.

Potential impacts to the County List A or B plant species or Group I animal species, or state Species of Special Concern with a potential to occur on the project site (see Tables 4 and 6) would not be expected to substantially reduce the habitat or the number, or restrict the range, of the species to a level affecting the species' population stability in the region; and therefore, would not be significant under CEQA or per the County Guidelines for Determining Significance [for] Biological Resources (September 26, 2006).

C. The proposed project would not result in direct impacts to San Diego desert woodrat nests, designated as a sensitive species in County Group II.

Potential impacts to the County List C or D plant species, or Group II animal species with a potential to occur on the project site (see Tables 4 and 6) would not be expected to substantially reduce the habitat or the number, or restrict the range, of the species to a level affecting the species' population

stability in the region; and therefore, would not be significant under CEQA or per the County Guidelines for Determining Significance [for] Biological Resources (September 26, 2006).

D. The proposed project would not result in impacts to arroyo toad aestivation or breeding habitat because the project site does not contain potentially suitable habitat for this species.

E. The proposed project should not result in impacts to golden eagle habitat because no known nesting sites are located within 4,000 feet of the property.

F. The proposed project would not result in significant loss of functional foraging habitat for raptors because raptors have a low potential for nesting on-site, with limited surrounding foraging habitat that would provide the cover preferred for pursuit and catch of prey.

G. The proposed project would not increase noise and/or nighttime lighting to a level above ambient proven to adversely affect sensitive species because no sensitive species that would be adversely affected by these impacts are known or expected to occur within the study area.

H. The proposed project would not affect the viability of wildlife usage of the adjacent Ewing Preserve, which is approximately 25 acres in size; although the Ewing Preserve consists of high quality, native habitat and likely supports several sensitive plant species, the preserve is not expected to support multiple sensitive wildlife species due to the existing fragmentation of habitat within the surrounding areas.

I. The proposed project could result in indirect impacts to the federally-listed, endangered Del Mar manzanita from an increase in human access and competition from exotic plants species, which would be significant per the County Guidelines for Determining Significance [for] Biological Resources (September 26, 2006); therefore, implementation of mitigation measures would be required to avoid impacts.

J. The proposed project would not impact the nesting success of sensitive avian species, tree-nesting raptors, ground-nesting raptors, or golden eagles because these species are not known or expected to nest on the project site.

Mitigation Measures and Design Considerations

I. Potential indirect impacts to the federally-listed, endangered Del Mar manzanita would be avoided through implementation of the biological open space easement restrictions discussed in the following section.

Conclusions

Implementation of the aforementioned project avoidance and mitigation measures would reduce impacts to special status species to a level below significance per the County Guidelines for Determining Significance [for] Biological Resources (September 26, 2006).

Riparian Habitat or Sensitive Natural Communities

Guidelines for Determination of Significance

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS?

An impact would be determined significant per the County Guidelines for Determining Significance [for] Biological Resources (September 26, 2006), if implementation of the proposed project would result in any of the following conditions:

- A.** Project-related construction, grading, clearing, construction or other activities would temporarily or permanently remove sensitive native or naturalized habitat on or off the project site.
- B.** Any of the following would occur to or within jurisdictional wetlands and/or riparian habitats as defined by the ACOE, CDFG and the County: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity and abundance.
- C.** The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historical low groundwater levels.
- D.** The project would increase human access or competition from domestic animals, pests or exotic species to levels proven to adversely affect sensitive habitats.
- E.** The project would not include a wetland buffer adequate to protect the functions and values of existing wetlands.

Analysis of Project Impacts

A. The proposed single-family residential development and required 100-foot fuel management zone would result in permanent, direct impacts through project-related grading, construction and vegetation clearing maintenance, to southern maritime chaparral both on-site, as well as off-site on adjacent private properties and within the Ewing Preserve (Table 7; see Figure 4). Impacts to this rare native habitat would be significant per the County Guidelines for Determining Significance [for] Biological Resources (September 26, 2006); therefore, implementation of project mitigation measures would be required to reduce impacts to a level below significance.

Table 7. Habitats/Vegetation Communities, Impacts

Vegetation Types	Existing (acres)	On-Site Impacts (acres)	Off-Site Impacts (acres)	On-Site Impact Neutral (acres)	Off-Site Impact Neutral (acres)
Emergent Wetland	0.01	0.00	0.00	0.00	0.00
Southern Maritime Chaparral	1.67	0.01	0.40	0.04	0.10
Eucalyptus Woodland	0.01	0.00	0.00	0.00	0.00
Non-Native Vegetation	0.11	0.01	0.07	0.09	0.12
Urban/Developed	0.79	0.74	0.53	0.00	0.01
Total:	2.59	0.76	1.00	0.13	0.23

B. The proposed single-family residential development would not result in direct impacts to the jurisdictional waterway. Since this area is proposed for exchange into the Ewing Preserve as part of the Boundary Adjustment, the on-site portion of the jurisdictional waterway should be protected from any potential direct impacts associated with future development.

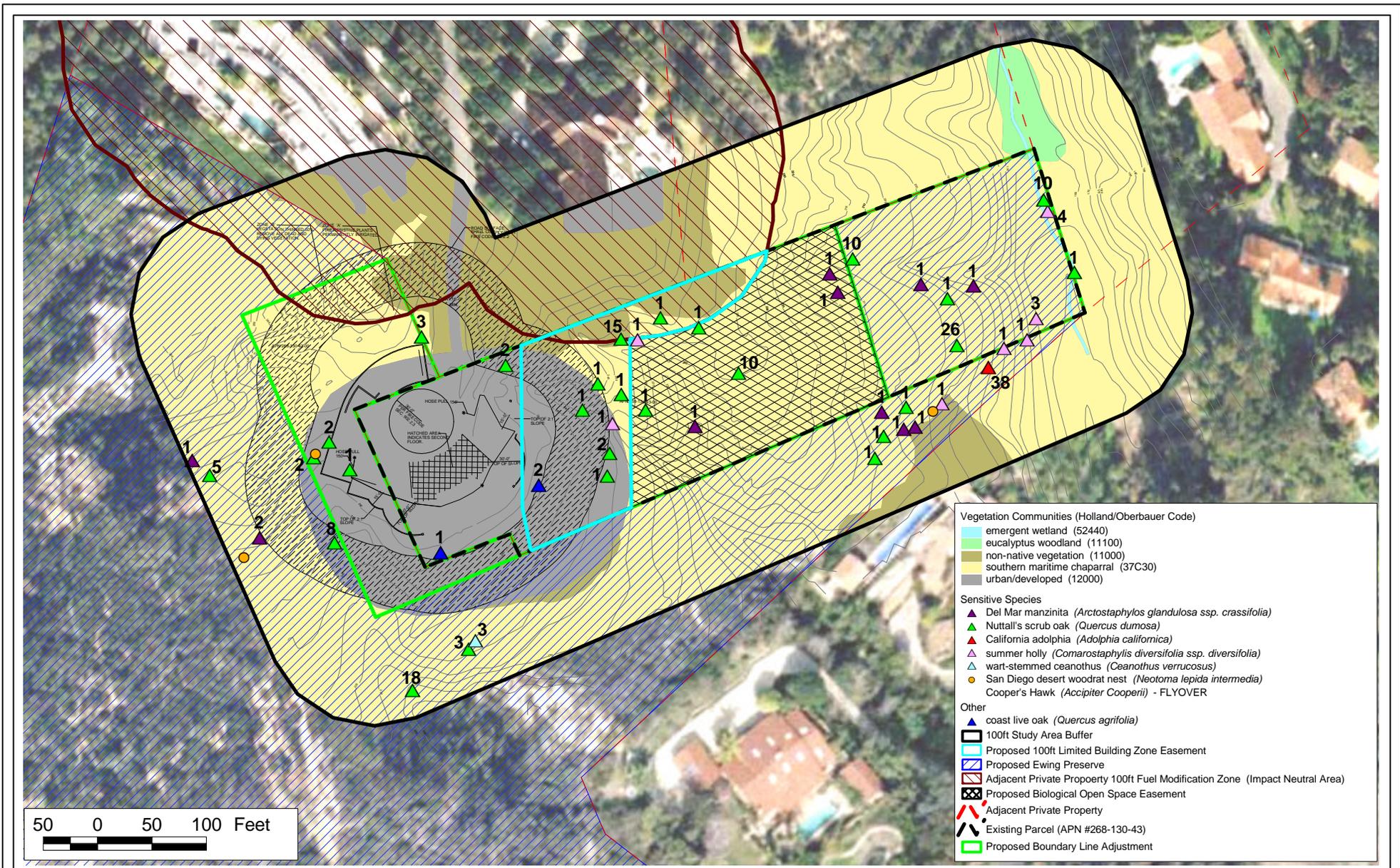
C. The proposed project would not draw down the groundwater table to the detriment of groundwater-dependent habitat.

D. The proposed project could result in indirect impacts to the surrounding southern maritime chaparral through an increase in human access and competition from domestic animals, pests or exotic species, which could adversely affect the sensitive habitat. In addition, the proposed rezone and density change of S-80 to RR.5 zoning could result in indirect impacts to the Ewing Preserve by allowing for the development of the single-family residence within an area that previously would have been conserved as open space, and thus, the potential for additional encroachment of adverse edge effects, further into the preserve. These potential impacts would be significant per the County Guidelines for Determining Significance [for] Biological Resources (September 26, 2006); therefore, implementation of project mitigation measures would be required to reduce impacts to a level below significance.

E. The functions and values of the jurisdictional waterway should be protected from any potential direct or indirect impacts through exchange of this area of land into the Ewing Preserve and dedication of the on-site biological open space easement.

Mitigation Measures and Design Considerations

A. Per the County Guidelines for Determining Significance [for] Biological Resources (September 26, 2006), impacts to southern maritime chaparral shall be mitigated at a 3:1 replacement ratio (Table 8). This mitigation requirement is proposed to be accomplished through 2 measures: 1) through exchange of higher quality habitat on the eastern portion of the property to the Ewing Preserve/Rancho Santa Fe Foundation as part of the Boundary Adjustment, and placement of deed restrictions over this portion of the preserve, written to the satisfaction of the County to ensure that the biological resources would be conserved in perpetuity; and 2) through dedication of an on-site biological open space easement, which would be considered the preferred biological alternative to off-site mitigation based on the high value of the biological resources on-site (Figure 5).



Biological Open Space Map

Zagara Property

Figure 5

Table 8. Habitats/Vegetation Communities, Impacts, Mitigation

Vegetation Type	Existing (acres)	On-Site Impacts (acres)	Off-Site Impacts (acres)	Mitigation Ratio	Mitigation Required	Preserved On-Site¹ (acres)	On-Site Impact Neutral (acres)	Off-Site Impact Neutral (acres)	Ewing Preserve Boundary Adjustment Mitigation² (acres)
Emergent Wetland	<u>0.01</u>	0.00	0.00	N/A	0.00	0.00	0.00	0.00	0.01
Southern Maritime Chaparral	1.67	0.08	0.42	3:1	1.50	0.84	0.04	0.10	0.71
Eucalyptus Woodland	0.01	0.00	0.00	None Required	0.00	0.00	0.00	0.00	0.01
Non-Native Vegetation	0.11	0.01	0.07	None Required	0.00	0.00	0.09	0.12	0.00
Urban/Developed	0.79	0.74	0.53	None Required	0.00	0.00	0.00	0.01	0.00
Total:	<u>2.59</u>	0.76	1.02		1.26	0.84	0.13	0.23	0.73

¹ Proposed on-site biological open space easement

² Land [32,000 square feet (0.73-acre)] in the eastern portion of the project site (APN 268-130-43) proposed to be given from the applicant to the Ewing Preserve/Rancho Santa Fe Foundation in exchange for (31,000 square feet (0.71-acre)) of land along the western boundary of the property proposed to be given from the Ewing Preserve/Rancho Santa Fe Foundation (APN 268-130-42) to the applicant as part of the Boundary Adjustment (BA) associated with the General Plan Amendment and Rezone

The Rancho Santa Fe Foundation (The Foundation) was established in 1981 and “promotes philanthropy by 1) assisting donors to build assets for their chosen charitable purposes; 2) enhancing the awareness of ways to give purposefully; 3) exploring and evaluating local and regional charitable needs; and 4) building endowments for charitable organizations” (Rancho Santa Fe Foundation 2007). The San Elijo Lagoon Conservancy has worked on collaboration with the Rancho Santa Fe Foundation and placed the proceeds from the sale of Foundation property into an operating endowment at the Foundation to help support land management operations. The San Elijo Lagoon Conservancy is a non-profit land trust working to preserve, protect, and enhance the San Elijo Lagoon Ecological Reserve and its watershed (San Elijo Lagoon Conservancy 2007).

In lieu of a management endowment fund for the property transferred to the Foundation, an agreed upon amount will be provided to the Foundation to be used for the creation of a management plan for the entire Ewing Preserve (D. Gibson 2008, pers. comm.). The Foundation will implement the management plan and associated activities to protect the resources into the future using resources available to the foundation.

The proposed on-site biological open space cannot be added to the Ewing Preserve due to the property having a General Plan Land Use Designation of (17) Estate Residential and zoning of RR.5 (Rural Residential-minimum lot size of 2 acres). The transfer of lands into the preserve would reduce the lot size to below the minimum necessary to meet zoning standards. At a minimum, the County will require the landowner to perform basic stewardship measures to ensure the preservation of the land within the biological open space easement. The County may require permanent fencing or walls along the boundary of the biological open space, as well as the Ewing Preserve, to limit potential encroachment into the sensitive areas since the single-family residence is proposed within 300 feet. Temporary fencing shall be required along the boundary of the open space easement during construction activities (if permanent fencing is not already installed) to prevent potential encroachment into the open space during clearing, grading, and construction.

An on-site limited building zone easement is also proposed 100 feet from the boundary of the proposed biological open space easement, which would prohibit the building of any structures that would require vegetation clearing for fuel management purposes. The 100-foot limited building zone easement also includes on-site impact neutral area. The purpose of the limited building zone easement is to protect the biological open space from impacts incurred by fire clearing requirements. The easement shall include the provision to allow structures that do not require fire fuel modification/vegetation management.

D. Potential indirect impacts to southern maritime chaparral would be mitigated through establishment of restrictions as part of the dedicated easement language. Such restrictions should include, but may not be limited to fencing or block walls along the open space boundary to prevent encroachment into the sensitive area, and landscaping requirements that prohibits the planting of

invasive or exotic species as listed in the California Invasive Plant Council (Cal-IPC) invasive plant inventory.

Conclusions

The proposed habitat-based mitigation measures should reduce impacts to southern maritime chaparral to a level below significance, provided that the dedicated easement language secures the areas placed into conservation in perpetuity, and ensures reasonable restrictions that would minimize encroachment into the sensitive area at levels that could adversely affect biological resources.

Jurisdictional Wetlands and Waterways

Guidelines for Determination of Significance

Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

An impact would be determined significant per the County Guidelines for Determining Significance [for] Biological Resources (September 26, 2006), if implementation of the proposed project would result in any of the following conditions:

- A.** Any of the following would occur to or within jurisdictional wetlands and/or riparian habitats as defined by the ACOE, CDFG and the County: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity and abundance.
- B.** The project would draw down the groundwater table to the detriment of groundwater- dependent habitat, typically a drop of 3 feet or more from historical low groundwater levels.
- C.** The project would not include a wetland buffer adequate to protect the functions and values of existing wetlands.

Analysis of Project Impacts

The proposed project should not result in significant impacts to jurisdictional wetlands or waterways under the thresholds of significance stated above. The proposed on-site biological open space easement should ensure that the functions and values of the jurisdictional waterway proposed for exchange into the Ewing Preserve would be protected from any potential direct or indirect impacts associated with future development exchange of this area of land into the Ewing Preserve.

The functions and values of the jurisdictional waterway should be protected from any potential direct or indirect impacts through exchange of this area of land into the Ewing Preserve.

Wildlife Movement and Nursery Sites

Guidelines for Determination of Significance

Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

An impact would be determined significant per the County Guidelines for Determining Significance for Biological Resources (September 26, 2006) if implementation of the proposed project would result in any of the following conditions:

- A.** The project would prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.
- B.** The project would substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage.
- C.** The project would create artificial wildlife corridors that do not follow natural movement patterns.
- D.** The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.
- E.** The project would not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path.
- F.** The project would not maintain adequate visual continuity (i.e., long lines-of-site) within an existing wildlife corridor or linkage.

Analysis of Project Impacts

The proposed project would not result in significant impacts to wildlife movement or nursery sites under the thresholds of significance stated above. Due to the existing fragmented landscape of the surrounding area, the proposed on-site open space design would actually preserve a larger block of habitat with connectivity to the Ewing Preserve for wildlife access to foraging and breeding habitat, as well as water sources.

Local Policies, Ordinances, and Adopted Plans

Guidelines for Determination of Significance

Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

An impact would be determined significant per the County Guidelines for Determining Significance [for] Biological Resources (September 26, 2006), if implementation of the proposed project would result in any of the following conditions:

- A.** For lands outside of the MSCP, the project would impact coastal sage scrub vegetation in excess of the County's 5% habitat loss threshold as defined by the Southern California Coastal Sage Scrub Natural Communities Conservation Planning Process (NCCP) Guidelines.
- B.** The project would preclude or prevent the preparation of the subregional NCCP. For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.
- C.** The project will impact any amount of sensitive habitat lands as outlined in the RPO.
- D.** The project would not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the NCCP Guidelines.
- E.** The project does not conform to the goals and requirements as outlined in any applicable Habitat Conservation Plan (HCP), Habitat Management Plan (HMP), Special Area Management Plan (SAMP), Watershed Plan, or similar regional planning effort.
- F.** For lands within the MSCP, the project would not minimize impacts to Biological Resource Core Areas (BRCA's), as defined in the Biological Mitigation Ordinance (BMO).
- G.** The project would preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.
- H.** The project does not maintain existing movement corridors and/or habitat linkages as defined by the Biological Mitigation Ordinance (BMO).
- I.** The project does not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.
- J.** The project would reduce the likelihood of survival and recovery of listed species in the wild.
- K.** The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (Migratory Bird Treaty Act [MBTA]).

L. The project would result in the take of eagles, eagle eggs or any part of an eagle (Bald and Golden Eagle Protection Act [BGEP]).

Analysis of Project Impacts

- A. The proposed project would not result in impacts to coastal sage scrub vegetation.
- B. With implementation of the habitat-based mitigation, the proposed project should not preclude or prevent the preparation of a subregional NCCP.
- C. The proposed project would result in impacts to southern maritime chaparral, a habitat designated as sensitive per the County RPO.
- D. The proposed project would not result in impacts to coastal sage scrub vegetation.
- E. The project is not subject to any applicable HCP, HMP, SAMP, Watershed Plan, or similar regional planning effort.
- F. The project site is not located within the approved South County MSCP Plan Subarea.
- G. The proposed project would not preclude connectivity between areas of high habitat value due to the existing fragmented landscape of the surrounding area.
- I. The proposed project would not result in impacts to MSCP narrow endemic species.
- J. The proposed project would not result in impacts to species listed as federally or state endangered or threatened, or reduce the likelihood of survival and recovery of listed species in the wild.

The proposed project could result in indirect impacts to the federally-listed, endangered Del Mar manzanita from an increase in human access and competition from exotic plants species, which would be significant per the County Guidelines for Determining Significance [for] Biological Resources (September 26, 2006); therefore, implementation of mitigation measures would be required to avoid impacts to this species.

- K. The proposed project would not be expected to result in the killing of any special-status migratory birds, or bird nests and/or eggs.
- L. The proposed project would not result in take of eagles, because no eagles are known or expected to nest on the project site or in the vicinity.

Mitigation Measures and Design Considerations

C. Impacts to southern maritime chaparral are proposed to be mitigated at a 3:1 replacement ratio through preservation of higher quality habitat on the area of land proposed for exchange into the Ewing Preserve/Rancho Santa Fe Foundation as part of the Boundary Adjustment, and through dedication of an on-site biological open space easement, which would be considered the preferred

biological alternative to off-site mitigation based on the high value of the biological resources on-site.

J. Potential indirect impacts to the federally-listed, endangered Del Mar manzanita would be avoided through implementation of the proposed habitat-based mitigation and on-site biological open space easement restrictions.

Conclusions

Implementation of the aforementioned project avoidance and mitigation measures would ensure compliance with the County RPO and Guidelines for Determining Significance [for] Biological Resources (September 26, 2006).

Cumulative Impacts

The project site is located within the central coast ecoregion of San Diego County, and based on the soils substrate mapped for this region, historically, this area of Rancho Santa Fe likely consisted of larger blocks of southern maritime chaparral which have now been substantially fragmented by surrounding rural development. Project impacts to this rare native vegetation community and the special status species that occur within the vegetation would be considered cumulatively considerable; however, implementation of the project avoidance and mitigation measures would reduce impacts to a level below significance under CEQA, and ensure consistency with the County RPO and Guidelines for Determining Significance [for] Biological Resources (September 26, 2006).

REFERENCES

- American Ornithologists' Union. 1998. Check-list of North American Birds, 7th ed. American Ornithologists' Union, Washington D.C.
- _____. 2006. Forty-seventh Supplement to the American Ornithologists' Union *Check-list of North American Birds* [Internet]. Auk 123(3): 926-936. Available from: <http://www.aou.org/checklist/index.php3>.
- California Department of Fish and Game. 2000. Fish and Game Code of California [Internet]. Gould Publications, Altamonte Springs, Florida. Available from: <http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=fgc>.
- California Department of Fish and Game, Natural Diversity Database. 2006 October 3. Natural Diversity Database. Rare Find Version 3.1.
- _____. 2006a February. Special Animals [Internet]. 53 pp + Appendix. Available from: <http://www.dfg.ca.gov/whdab/html/animals.html>.
- _____. 2006b October. Endangered and Threatened Animals List [Internet]. 12 pp. Available from: <http://www.dfg.ca.gov/whdab/html/animals.html>.
- _____. 2007a April. Endangered, Threatened, and Rare Plants List [Internet]. 16 pp. Available from: <http://www.dfg.ca.gov/whdab/html/plants.html>.
- _____. 2007b April. Special Vascular Plants, Bryophytes, and Lichens List [Internet]. Quarterly publication. 69 pp. Available from: <http://www.dfg.ca.gov/whdab/html/plants.html>.
- California Invasive Plant Council (Cal-IPC). 2007. California Invasive Plant Inventory [Internet]. 2007 Inventory Update. Available from: <http://www.cal-ipc.org/>.
- _____. 2001. Inventory of Rare and Endangered Plants [Internet]. 6th edition. Rare Plant Scientific Advisory Committee. David P. Tibor, convening editor. Sacramento, California. X+ 388 pp. Available from: <http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi>.
- California Resources Agency. 2005 January 1. CEQA, The California Environmental Quality Act, Statute [Internet]. Cooperative effort among the California Resources Agency, its programs CERES and LUPIN, and the Governor's Office of Planning and Research. Available from: <http://ceres.ca.gov/ceqa/index.html>.
- _____. 2006 July 11. CEQA, The California Environmental Quality Act, Guidelines [Internet]. Cooperative effort among the California Resources Agency, its programs CERES and LUPIN, and the Governor's Office of Planning and Research. Available from: <http://ceres.ca.gov/ceqa/index.html>.
- County of San Diego. 2006 September 26. County of San Diego Sensitive Plant and Animal Lists [Internet]. 9pp. Available from County of San Diego Guidelines [for] Determining Significance for Biological Resources (Tables 2 and 3): http://www.sdcounty.ca.gov/dplu/Resource/docs/3~pdf/Biological_Guidelines.pdf.

- _____. 2006 September 26. Guidelines for Determining Significance [for] Biological Resources [Internet]. Land Use and Environment Group; Department of Planning and Land Use; Department of Public Works. 51pp. Available from:
http://www.sdcounty.ca.gov/dplu/Resource/docs/3~pdf/Biological_Guidelines.pdf.
- _____. 2006 September 26. Report Format and Content Requirements [for] Biological Resources [Internet]. Land Use and Environment Group; Department of Planning and Land Use; Department of Public Works. 34pp. + Attachments A-C. Available from:
http://www.sdcounty.ca.gov/dplu/Resource/docs/3~pdf/Biological_Report_Format.pdf.
- _____. 2006 September 29. 1st Iteration Review of Initial Studies/Information for the Linea del Cielo Project (Case Number GPA 06-003; R06-006). Department of Planning and Land Use. 8pp. + Attachments A and B.
- _____. 2007 March 21. The Resource Protection Ordinance [Internet]. Adopted 1991, Amended. 18pp. Available from:
http://www.sdcounty.ca.gov/dplu/Resource/docs/3~pdf/res_prot_ord.pdf.
- Crother, BI (ed.). 2000 (2001). Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in Our Understanding. SSAR Herpetological Circular 29.iii +82 pp.
- Crother, BI, J Boundy, JA Campbell, K De Quieroz, D Frost, DM Green, R Highton, JB Iverson, R W McDiarmid, PA Meylan, TW Reeder, ME Seidel, JW Sites, Jr., SG Tilley, and DB Wake. 2003. Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico: Update. Herpetological Review 2003, 34(3), 196-203.
- Gibson, D. 2008 Jan 3. E-mail correspondance between Doug Gibson, Executive Director of the San Elijo Lagoon Conservancy and M&A biologist Diana Jensen regarding preservation and management of the land proposed for exchange to the Ewing Preserve.
- Holland, RF 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame-Heritage Program; State of California; Department of Fish and Game. Sacramento, California. 157pp.
- Natural Resources Conservation Service (NRCS). 2006 April 18. Soil Survey Geographic (SSURGO) database for San Diego County, California Metadata [Internet]. U.S. Department of Agriculture, Natural Resources Conservation Service. Fort Worth, Texas. Available from: <http://soildatamart.nrcs.usda.gov/>.
- Oberbauer, T. 2005 March. Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions [Internet]. 1996, revised 2005. 5 pp. Available from County of San Diego Guidelines for Determining Significance [for] Biological Resources (Table 4):
http://www.sdcounty.ca.gov/dplu/Resource/docs/3~pdf/Biological_Guidelines.pdf.
- Opler PA and AB Wright. 1999. A Field Guide to Western Butterflies. Second Edition Houghton Mifflin Company. Boston and New York. 540 pp.

- Opler PA, H Pavulaan, RE Stanford, M Pogue, coordinators. 2006. Butterflies and Moths of North America. Bozeman, MT: Mountain Prairie Information Node. Available from: <http://www.butterfliesandmoths.org/>.
- Rancho Santa Fe Foundation. 2007. Information Brochure [Internet]. Available from: <http://www.rsffoundation.org/aboutus/brochures.html>.
- Rebman, JP and Simpson, MG. 2006. *Checklist of the Vascular Plants of San Diego County, 4th Edition* [Internet]. ISBN 0-918969-05-0. Available from: <http://www.sdnhm.org/research/botany/sdplants/index.html>
- Reiser, CH. 2001 February. Rare Plants of San Diego County. Aquafir Press. 2001 edition. 299 pp.
- San Elijo Lagoon Conservancy. 2007. Home Page [Internet]. Available from: <http://www.sanelijo.org/>.
- Strand, RG. 1962. Geologic Map of California, San Diego-El Centro Sheet. State of California, The Resources Agency, Department of Conservation, Division of Mines and Geology. Sacramento, California. Fourth printing 1992.
- Thomas Bros. Maps. 2006, Edition. The Thomas Guide, San Diego County, Including Portions of Imperial County.
- U.S. Geological Survey (USGS). 2003 February 23. Rancho Santa Fe Quadrangle, California; California Digital Raster Graphics, 7.5 Minute (0) Series, Albers NAD 27 [Internet]. Available from: http://casil.ucdavis.edu/casil/gis.ca.gov/drg/7.5_minute_series_albers_nad27_trimmed/.
- U.S. Fish and Wildlife Service (USFWS). 2003. Recovery Plan for the Quino Checkerspot Butterfly (*Euphydryas editha quino*). Portland, Oregon. X + 179 pp. Available from: http://ecos.fws.gov/docs/recovery_plans/2003/030917.pdf.
- _____. 2005. Quino Survey Map [Internet]. Available from: <http://www.fws.gov/carlsbad/Rules/QuinoDocuments/Quinopdfs/web-map20052.pdf>.
- _____. 2007. Carlsbad Fish and Wildlife Office, GIS Division Species Occurrence Data Download (zip) updated 06/06/2007 [Internet]. Available from: <http://www.fws.gov/carlsbad/giswebpage/giswebpage>.
- Wilson, DE and DM Reeder (eds). 1993. Mammal Species of the World. Smithsonian Institution Press. Washington, D.C. 1206pp.

PREPARER(S) AND PERSONS/ORGANIZATIONS CONTACTED

Merkel & Associates, Inc.

Diana M. Jensen, County Approved Biological Consultant/Primary Report Author

Kyle L. Ince, Lead Senior Biologist/Botanist

Edward L. Ervin, Associate Field Biologist/Contributing Report Author

Brad M. Kelly, GIS Specialist/Graphics Preparation and Numeric Analyses

Keith W. Merkel, County Approved Biological Consultant/Report QA/QC Review

APPENDICES

APPENDIX 1. FLORA SPECIES OBSERVED ON-SITE

Habitat Types:

- W = Emergent Wetland
- C = Southern Maritime Chaparral
- E = Eucalyptus Woodland
- N = Non-native Vegetation
- U = Urban/Developed

* = Denotes non-native flora species.

Scientific Name	Common Name	Habitat
CRYPTOGAMS		
Pteridaceae - Brake Family		
<i>Pellaea mucronata</i> (D. Eaton) D. Eaton var. <i>mucronata</i>	bird's-foot cliff-brake	C
GYMNOSPERMS		
Pinaceae - Pine Family		
* <i>Pinus</i> sp.	pine	N
DICOTYLEDONS		
Aizoaceae – Fig-Marigold Family		
* <i>Carpobrotus edulis</i> (L.) N. E. Br.	hottentot-fig	N
* <i>Mesembryanthemum</i> sp.	iceplant	N
Amaranthaceae - Amaranth Family		
<i>Atriplex prostrata</i> DC.	spearscale	E
Anacardiaceae - Sumac Family		
<i>Rhus integrifolia</i> (Nutt.) Brewer & S. Watson	lemonadeberry	C
* <i>Schinus molle</i> L.	Peruvian pepper tree	N
Apiaceae - Carrot Family		
<i>Daucus pusillus</i> Michaux	rattlesnake weed	C
Araliaceae – Ginseng Family		
* <i>Hedera helix</i> L.	English Ivy	N
Asteraceae - Sunflower Family		
<i>Ambrosia psilostachya</i> DC.	western ragweed	E
<i>Artemisia californica</i> Less.	coastal sagebrush	C
<i>Baccharis pilularis</i> DC.	coyote brush	C
* <i>Cirsium vulgare</i> (Savi) Ten.	bull thistle	E
* <i>Conyza bonariensis</i> (L.) Cronq.	flax-leaf fleabane	C
<i>Encelia californica</i> Nutt.	California encelia	C
<i>Filago californica</i> Nutt.	California filago	C
<i>Heterotheca grandiflora</i> Nutt.	telegraph weed	C
<i>Isocoma menziesii</i> (Hook. & Arn.) G. Nesom var. <i>vernonioides</i> (Nutt.) G. Nesom	coastal goldenbush	C
* <i>Picris echioides</i> L.	bristly ox-tongue	C
<i>Pseudognaphalium microcephalum</i> (Nutt.) Anderb.	white everlasting	C
* <i>Sonchus oleraceus</i> L.	common sow thistle	C
<i>Stephanomeria diegensis</i> Gottlieb	San Diego wreath-plant	C
* <i>Xanthium strumarium</i> L.	cocklebur	W

Scientific Name	Common Name	Habitat
Berberidaceae - Barberry Family <i>Berberis pinnata</i> Lagusca ssp. <i>pinnata</i>	shinyleaf mahonia	C
Boraginaceae - Borage Family <i>Cryptantha intermedia</i> (A. Gray) E. Greene <i>Cryptantha micromeres</i> (A. Gray) E. Greene	nievitas cryptantha minute-flower cryptantha	C C
Brassicaceae - Mustard Family * <i>Hirschfeldia incana</i> (L.)Lagr.-Fossat	short-pod mustard	C
Cactaceae - Cactus Family <i>Opuntia littoralis</i> (Engelm.) Cockerell	coast prickly-pear	C
Caprifoliaceae - Honeysuckle Family <i>Lonicera subspicata</i> Hook. & Arn. var. <i>denudata</i> Rehder	Johnston's honeysuckle	C
Caryophyllaceae - Pink Family <i>Cardionema ramosissima</i> (J. A. Weinm.) Nelson & J. F. Macbr.	tread lightly	C
Crassulaceae - Stonecrop Family <i>Crassula connata</i> (Ruíz Lopez & Pavón) A. Berger <i>Dudleya edulis</i> (Nutt.) Moran <i>Dudleya lanceolata</i> (Nutt.) Britton & Rose	dwarf stonecrop, pygmyweed ladies'-fingers coastal/lance-leaf dudleya	C C C
Cucurbitaceae - Gourd Family <i>Marah macrocarpus</i> (E. Greene) E. Greene var. <i>macrocarpus</i>	wild-cucumber	C
Ericaceae - Heath Family <i>Arctostaphylos glandulosa</i> Eastw. ssp. <i>crassifolia</i> (Jepson) P. Wells <i>Comarostaphylis diversifolia</i> (C. Parry) E. Greene ssp. <i>diversifolia</i> <i>Xylococcus bicolor</i> Nutt.	Del Mar manzanita summer-holly mission manzanita	C C C
Fabaceae - Pea Family * <i>Acacia baileyana</i> F. Muell. * <i>Acacia longifolia</i> (Andrews) Willd. * <i>Acacia redolens</i> Maslin * <i>Erthrina crista-galli</i> <i>Lotus purshianus</i> (Benth.) Clements & E. G. Clements var. <i>purshianus</i> <i>Lotus scoparius</i> (Nutt.) Ottley var. <i>scoparius</i> * <i>Melilotus</i> sp.	cootamundra wattle golden wattle bank catclaw cockspur coral tree Spanish-clover coastal deerweed sweetclover	N N N N C C W

Scientific Name	Common Name	Habitat
Fagaceae - Oak Family		
<i>Quercus agrifolia</i> Neé var. <i>agrifolia</i>	coast live oak	N
<i>Quercus dumosa</i> Nutt.	Nuttall's scrub oak	C
Geraniaceae - Geranium Family		
* <i>Geranium molle</i> L.	dove-foot geranium	C
Hyacinthaceae – Hyacinth Family		
<i>Chlorogalum parviflorum</i> S. Watson	small-flower soap-plant	C
Hydrophyllaceae - Waterleaf Family		
<i>Eucrypta chrysanthemifolia</i> (Benth.) E. Greene var. <i>chrysanthemifolia</i>	common eucrypta	C
Lamiaceae - Mint Family		
<i>Salvia mellifera</i> E. Greene	black sage	C
Malvaceae - Mallow Family		
<i>Malacothamnus densiflorus</i> (S. Watson)Greene	many-flowered bush mallow	C
Myrtaceae - Myrtle Family		
* <i>Eucalyptus</i> spp.	eucalyptus	C, E
Nyctaginaceae – Four O'clock Family		
* <i>Bougainvillea brasiliensis</i> Comm. ex Juss.	bougainvillea	U
Oleaceae - Olive Family		
* <i>Olea europea</i> L.	olive	N
Onagraceae - Evening-Primrose Family		
<i>Camissonia intermedia</i> Raven	intermediate sun cup	C
Oxalidaceae - Oxalis Family		
* <i>Oxalis pes-caprae</i> L.	bermuda-buttercup	W
Plantaginaceae - Plantain Family		
<i>Antirrhinum kelloggii</i> E. Greene	climbing snapdragon	C
<i>Antirrhinum nuttallianum</i> Benth. ssp. <i>nuttallianum</i>	Nuttall's snapdragon	C
Podocarpaceae – Yew Family		
* <i>Podocarpus gracilior</i> Pilg.	fern pine	N
Polygonaceae - Buckwheat Family		
<i>Chorizanthe staticoides</i> Benth.	Turkish rugging	C
<i>Eriogonum fasciculatum</i> (Benth.) Torr. & A. Gray var. <i>polifolium</i> (Benth.)Torr. & A. & Gray	flat-top buckwheat	C
* <i>Rumex crispus</i> L.	curly dock	W

Scientific Name	Common Name	Habitat
Rhamnaceae - Buckthorn Family		
<i>Adolphia californica</i> S. Watson	California Adolphia	
<i>Ceanothus verrucosus</i> Nutt.	wart-stemmed ceanothus	
Rosaceae - Rose Family		
<i>Adenostoma fasciculatum</i> Hook & Arn.	chamise	C
<i>Heteromeles arbutifolia</i> (Lindl.)M. Roem.	toyon	C
Rubiaceae - Madder Family		
<i>Galium nuttallii</i> A. Gray ssp. <i>nuttallii</i>	Nuttall's bedstraw	C
Rutaceae - Rue Family		
<i>Cneoridium dumosum</i> (Nutt.) Baill.	Bush-rue	C
Scrophulariaceae - Figwort Family		
* <i>Myoporum laetum</i> G. Forst.	ngaio	N
* <i>Nicotiana glauca</i> Graham	tree tobacco	C, E
Solanaceae - Nightshade Family		
<i>Mimulus aurantiacus</i> Curtis	coast monkeyflower	C
Tropaeolaceae - Nasturtium Family		
* <i>Tropaeolum majus</i> L.	garden nasturtium	C
Themidaceae – Brodiaea Family		
<i>Dichelostemma capitatum</i> Alph.Wood ssp. <i>capitatum</i>	blue dicks	C
MONOCOTYLEDONS		
Agavaceae – Agave Family		
<i>Hesperoyucca whipplei</i> (Torrey) Trelease ssp. <i>whipplei</i> K. H. Clary	Chaparral yucca	C
<i>Yucca schidigera</i> Ortgies	Mojave yucca	C
Areaceae - Palm Family		
* <i>Phoenix canariensis</i> Chabaud	Canary Island date palm	N
Asparagaceae – Asparagus Family		
* <i>Asparagus asparagoides</i> (L.) Druce	florist's-smilax	C
Asphodelaceae – Asphodel Family		
* <i>Aloe xschonlandii</i> Baker	aloe	C
Poaceae - Grass Family		
* <i>Cortaderia</i> sp.	pampas grass	C

Scientific Name	Common Name	Habitat
<i>Leymus condensatus</i> (Presl)A. Love	giant wild rye	C
<i>Melica imperfecta</i> Trin.	coast range melic	C
<i>Nassella lepida</i> (Hitchc.)Barkworth	foothill needlegrass	C
* <i>Polypogon monspeliensis</i> (L.)Desf.	annual beard grass	E

APPENDIX 2. FAUNA SPECIES OBSERVED OR DETECTED ON-SITE

Habitat Types:

- W = Emergent Wetland
- C = Southern Maritime Chaparral
- E = Eucalyptus Woodland
- N = Non-native Vegetation
- U = Urban/Developed Land

Abundance Codes:

- A = Abundant: Almost always encountered in moderate to large numbers in suitable habitat and the indicated season.
- C = Common: Usually encountered in proper habitat at the given season.
- U = Uncommon: Infrequently detected in suitable habitat. May occur in small numbers or only locally in the given season.
- R = Rare: Applies to species that are found in very low numbers.

'Numbers' indicate the number of individuals observed during the recent survey work.

Status Codes (birds only):

- M = Migrant: Uses the site for brief periods of time, primarily during the spring and fall months.
- R = Year-round resident: Probable breeder on-site or in the vicinity.
- S = Spring/summer resident: Probable breeder on-site or in the vicinity unless combined with transient status.
- T = Transient: Uses site irregularly in summer but unlikely to breed. Not a true migrant and actual status often poorly known.
- W = Winter visitor: Does not breed locally.
- V = Casual vagrant: Not expected; out of normal geographic or seasonal range and by definition rare.
- F = denotes species observed as flyover
- * = denotes introduced species

Common Name	Scientific Name	Habitat	Abundance	Status
REPTILES				
Phrynosomatidae				
western fence lizard	<i>Sceloporus occidentalis</i>	U		
BIRDS				
Phasianidae (Quails, Pheasants, and Relatives)				
California quail	<i>Callipepla californica</i>	C	C	R
Accipitridae (Hawks and Harriers)				
Cooper's hawk	<i>Accipiter cooperii</i>	F	C	M, R
Columbidae (Pigeons and Doves)				
mourning dove	<i>Zenaida macroura</i>	C	C	R
Picidae (Woodpeckers and Wrynecks)				
northern flicker	<i>Colaptes auratus</i>	C	C	M, W, R
Tyrannidae (Tyrant Flycatchers)				
western kingbird	<i>Tyrannus verticalis</i>	C	C	M, S
Corvidae (Jays, Magpies, and Crows)				
western scrub-jay	<i>Aphelocoma californica</i>	C	C	R
common raven	<i>Corvus corax</i>	C	C	R
Aegithalidae (Bushtit)				
bushtit	<i>Psaltriparus minimus</i>	C	C	R
Troglodytidae (Wrens)				
Bewick's wren	<i>Thryomanes bewickii</i>	C	C	R
Mimidae (Mockingbirds and Thrashers)				
northern mockingbird	<i>Mimus polyglottos</i>	C	C	R
California thrasher	<i>Toxostoma redivivum</i>	C	C	R
Emberizidae (Sparrows, Blackbirds and Relatives)				
California towhee	<i>Pipilo crissalis</i>	C	C	R
Passeridae (Weaver Finches)				
*house sparrow	<i>Passer domesticus</i>	C	C	R
MAMMALS				
Leporidae (Rabbits and Hares)				
desert cottontail	<i>Sylvilagus audubonii</i>	C		

Common Name	Scientific Name	Habitat	Abundance	Status
Muridae (Rats, mice, and voles)				
San Diego desert woodrat	<i>Neotoma lepida intermedia</i>			C
Sciuridae (Squirrels, Chipmunks, and Marmots)				
California ground squirrel	<i>Spermophilus beecheyi</i>			C
western gray squirrel	<i>Sciurus griseus</i>			C
Geomyidae (Pocket Gophers)				
Botta's pocket gopher	<i>Thomomys bottae</i>			C
Canidae (Foxes, Wolves, and Relatives)				
coyote	<i>Canis latrans</i>			C

APPENDIX 3. CNDDDB FORMS

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95814
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): 11/30/2006

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Adolphia californica

Common Name: California adolphia

Species Found? Yes No _____
If not, why?

Total No. Individuals 38 Subsequent Visit? yes no

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

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

Reporter: Diana M. Jensen

Address: Merkel & Associates, Inc.
5434 Ruffin Road, San Diego CA 92123

E-mail Address: djensen@merkelinc.com

Phone: (858) 560-5465

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

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

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

County: San Diego Landowner / Mgr.: Ewing Preserve

Quad Name: Rancho Santa Fe Elevation: 254 AMSL

T 13S R 3W Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S Source of Coordinates (GPS, topo. map & type): _____

T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S GPS Make & Model _____

DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet

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

Coordinates: Latitude 33° 00' 57.53" N, Longitude 117° 12' 30.35" W;
Universal Transverse Mercator coordinates 480614 E, 3652882 N, Zone 11

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

southern maritime chaparral on standstone substrate

Del Mar manzanita (Arctostaphylos glandulosa crassifolia), summer holly (Comarostaphylis diversifolia diversifolia), Nuttall's scrub oak (Quercus dumosa) and wart-stemmed ceanothus (Ceanothus verrucosus) also observed; separate CNDDDB forms submitted

Other rare taxa seen at THIS site on THIS date:
(separate form preferred)

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

Immediate AND surrounding land use: rural development

Visible disturbances:

Threats:

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): Kyle L. Ince (Senior Botanist)
- Other: _____

Photographs: (check one or more)

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"/>

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 95814
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): 11/30/2006

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Arctostaphylos glandulosa ssp. crassifolia

Common Name: Del Mar manzanita

Species Found? Yes No _____ If not, why? _____
Total No. Individuals 11 Subsequent Visit? yes no
Is this an existing NDDDB occurrence? _____ no unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Diana M. Jensen
Address: Merkel & Associates, Inc.
5434 Ruffin Road, San Diego CA 92123
E-mail Address: djensen@merkelinc.com
Phone: (858) 560-5465

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

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

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

County: San Diego Landowner / Mgr.: APN 268-130-43 and Ewing Preserve
Quad Name: Rancho Santa Fe Elevation: 254 AMSL
T 13S R 3W Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S
DATUM: NAD27 NAD83 WGS84
Source of Coordinates (GPS, topo. map & type): _____
GPS Make & Model _____
Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 **OR** Geographic (Latitude & Longitude)
Coordinates: Latitude 33° 00' 57.53" N, Longitude 117° 12' 30.35" W;
Universal Transverse Mercator coordinates 480614 E, 3652882 N, Zone 11

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):
southern maritime chaparral on standstone substrate
summer holly (Comarostaphylis diversifolia diversifolia), Nuttall's scrub oak (Quercus dumosa), California adolphia (Adolphia californica) and wart-stemmed ceanothus (Ceanothus verrucosus) also observed; separate CNDDDB forms submitted
Other rare taxa seen at THIS site on THIS date:
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor
Immediate AND surrounding land use: Ewing Preserve and rural development
Visible disturbances:
Threats:
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): Kyle L. Ince (Senior Botanist)
 Other: _____

Photographs: (check one or more)

Slide Print Digital
Plant / animal
Habitat
Diagnostic feature
May we obtain duplicates at our expense? yes no

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Elm Code _____	Occ. No. _____
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Date of Field Work (mm/dd/yyyy): 11/30/2006

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California Native Species Field Survey Form

Send Form

Scientific Name: Quercus dumosa

Common Name: Nuttall's scrub oak

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

Total No. Individuals 129 Subsequent Visit? yes no

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

Collection? If yes: _____
Number Museum / Herbarium

Reporter: Diana M. Jensen

Address: Merkel & Associates, Inc.
5434 Ruffin Road, San Diego CA 92123

E-mail Address: djensen@merkelinc.com

Phone: (858) 560-5465

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

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

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

County: San Diego Landowner / Mgr.: APN 268-130-43 and Ewing Preserve

Quad Name: Rancho Santa Fe Elevation: 254 AMSL

T 13S R 3W Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S
 T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S

DATUM: NAD27 NAD83 WGS84 Source of Coordinates (GPS, topo. map & type): _____

Horizontal Accuracy _____ meters/feet

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

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Other rare taxa seen at THIS site on THIS date:
 (separate form preferred)

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

Immediate AND surrounding land use: Ewing Preserve and rural development

Visible disturbances: _____

Threats: _____

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): Kyle L. Ince (Senior Botanist)

Other: _____

Photographs: (check one or more)

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"/>

May we obtain duplicates at our expense? yes no

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Date of Field Work (mm/dd/yyyy): 11/30/2006

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California Native Species Field Survey Form

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Scientific Name: *Comarostaphylis diversifolia diversifolia*

Common Name: summer holly

Species Found? Yes No _____ If not, why? _____
Total No. Individuals 12 Subsequent Visit? yes no
Is this an existing NDDDB occurrence? _____ no unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Diana M. Jensen
Address: Merkel & Associates, Inc.
5434 Ruffin Road, San Diego CA 92123
E-mail Address: djensen@merkelinc.com
Phone: (858) 560-5465

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

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

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

County: San Diego Landowner / Mgr.: APN 268-130-43 and Ewing Preserve
Quad Name: Rancho Santa Fe Elevation: 254 AMSL
T 13S R 3W Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S
DATUM: NAD27 NAD83 WGS84
Source of Coordinates (GPS, topo. map & type): _____
GPS Make & Model _____
Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
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Other rare taxa seen at THIS site on THIS date:
(separate form preferred)

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Immediate AND surrounding land use: Ewing Preserve and rural development

Visible disturbances:

Threats:

Comments:

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

Keyed (cite reference): _____
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 Compared with photo / drawing in: _____
 By another person (name): Kyle L. Ince (Senior Botanist)
 Other: _____

Photographs: (check one or more)

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"/>

May we obtain duplicates at our expense? yes no

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Date of Field Work (mm/dd/yyyy): 11/30/2006

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California Native Species Field Survey Form

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Scientific Name: Ceanothus verrucosus

Common Name: wart-stemmed ceanothus

Species Found? Yes No _____ If not, why? _____
Total No. Individuals 3 Subsequent Visit? yes no
Is this an existing NDDDB occurrence? _____ no unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Diana M. Jensen
Address: Merkel & Associates, Inc.
5434 Ruffin Road, San Diego CA 92123
E-mail Address: djensen@merkelinc.com
Phone: (858) 560-5465

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

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

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

County: San Diego Landowner / Mgr.: Ewing Preserve
Quad Name: Rancho Santa Fe Elevation: 254 AMSL
T 13S R 3W Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S Source of Coordinates (GPS, topo. map & type): _____
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S GPS Make & Model _____
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet
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Other rare taxa seen at THIS site on THIS date:
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor
Immediate AND surrounding land use: rural development
Visible disturbances:
Threats:
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): Kyle L. Ince (Senior Botanist)
 Other: _____

Photographs: (check one or more)

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

May we obtain duplicates at our expense? yes no