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September 14, 2007

M&A #07-015-03

Mr. Ken Discenza
Site Design Associates
1016 Broadway, Suite A
El Cajon, CA 92021

Biological Resource Letter Report
Shorez TPM – 5550 Dehesa Road Project
(County of San Diego Case/Environmental Log Numbers TPM 21054/07-14-002)

Dear Mr. Discenza:

Merkel & Associates, Inc. biologists, Gina M. Krantz and Diana M. Jensen (County Approved Biological Consultant) have prepared the following revised 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, first revision December 5, 2007).

If you have any questions concerning this biological letter report, please do not hesitate to contact me at (858) 560-5465 or gkrantz@merkelinc.com.

Sincerely,

Gina M. Krantz
Lead Senior Biologist/Project Manager

Diana M. Jensen
Senior Biologist/County Approved Biological Consultant

SUMMARY

The proposed Shorez TPM-5550 Dehesa Road Project is a Tentative Parcel Map that would subdivide the approximate 13.8-acre property into 4 parcels. Three parcels (Parcels 1-3) ranging between 2.35 and 3.02 acres are proposed for residential development while Parcel 4 (5.91 acres) along the northern portion of the property includes an existing single-family residence that would be retained and the remainder would be conserved onsite under a biological open space easement. No offsite improvements are required for the proposed project. The study area included the proposed project site plus a 100-foot buffer. The study area consists predominately of Diegan coastal sage scrub and also includes non-native grassland, non-native vegetation, disturbed habitat, orchards, and urban/developed lands. Two special status floral species and 3 special status faunal species were identified on the project site during the biological surveys, including Robinson's peppergrass (*Lepidium virginicum* var. *robinsonii*), San Diego sunflower (*Viguiera laciniata*), orange-throated whiptail (*Aspidoscelis hyperythra*), rosy boa (*Lichanura trivirgata*), and southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*). In addition, 4 special status bird species were observed flying over the property, including Cooper's hawk (*Accipiter cooperii*), golden eagle (*Aquila chrysaetos*), red-shouldered hawk (*Buteo lineatus*), and turkey vulture (*Cathartes aura*). Significant impacts to Diegan coastal sage scrub and non-native grassland habitats would occur as a result of the proposed project. These impacts are proposed to be mitigated within an onsite biological open space easement, consisting of Diegan coastal sage scrub habitat.

INTRODUCTION, PROJECT DESCRIPTION, LOCATION, SETTING

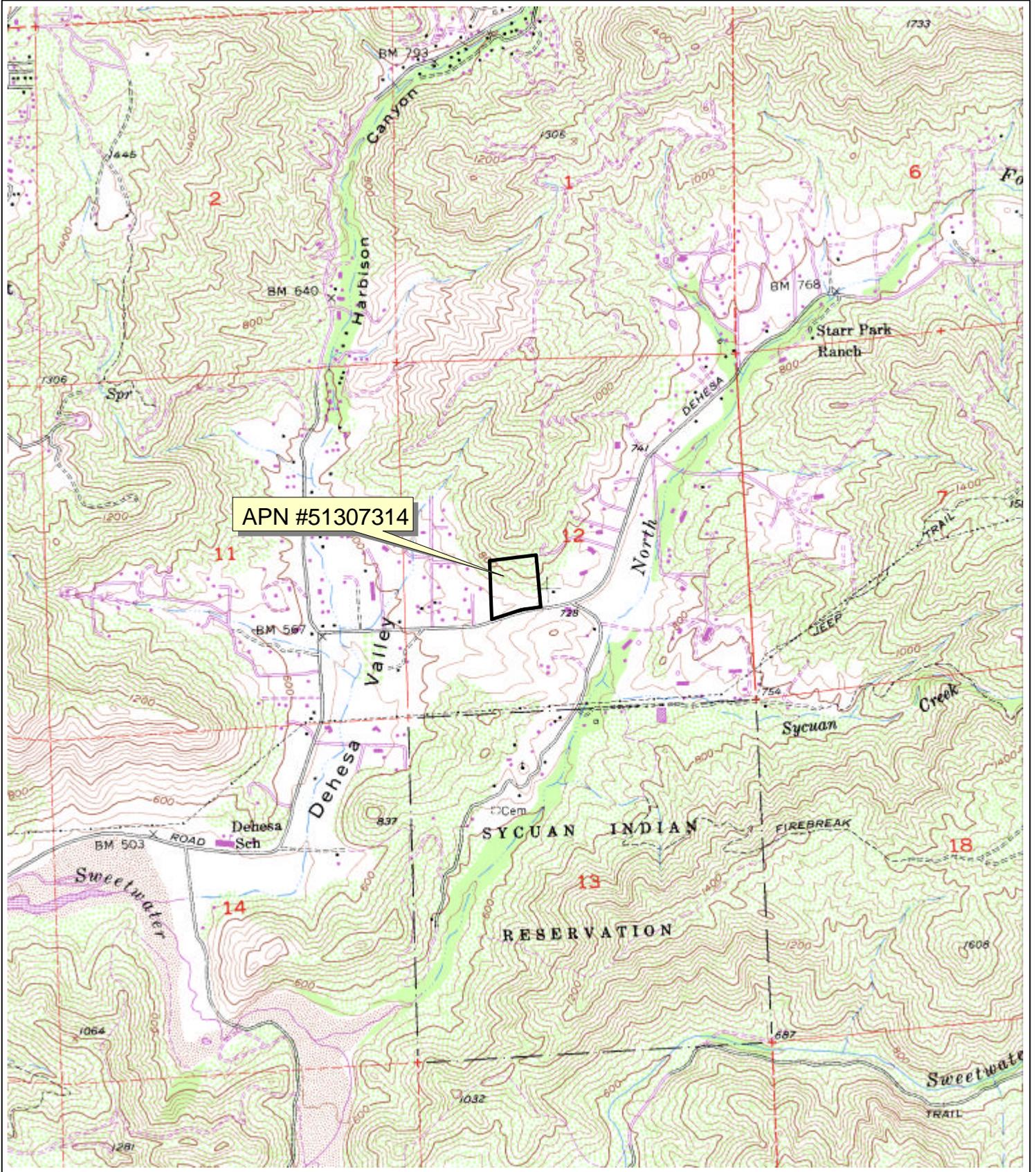
Merkel & Associates, Inc. (M&A) has prepared this biological resource letter report for the proposed Shorez TPM - 5550 Dehesa Road Project (County of San Diego Case/Environmental Log Numbers TPM 21054/07-14-002), written in accordance with the County of San Diego Report Format and Content Requirements [for] Biological Resources (September 26, 2006, first revision December 5, 2007). 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 (County) Resource Protection Ordinance (RPO), Guidelines for Determining Significance [for] Biological Resources (September 26, 2006), Multiple Species Conservation Program (MSCP) Subarea Plan, and Biological Mitigation Ordinance (BMO).

The project site (Assessors Parcel Number 513-073-14) is located within Section 12, Township 16 South, Range 1 East of the San Bernardino Base and Meridian; U.S. Geological Survey 7.5' Alpine, California Quadrangle (Figure 1).

The proposed project has been redesigned from the project described in the County scoping letter, dated April 27, 2007 to address major project issues, including those identified in the County First Iteration Review Letter, dated November 7, 2007. Project design changes include the avoidance of direct impacts to special status species (i.e., Robinson's pepper grass) and minimization of impacts to sensitive habitats such as Diegan coastal sage scrub. The redesigned project is a Tentative Parcel Map that would subdivide the approximate 13.8-acre property into 4 parcels. Three parcels (Parcels 1-3) ranging between 2.35 and 3.02 acres are proposed for residential development while Parcel 4 (5.91 acres) along the northern portion of the property includes an existing single-family residence that would be retained and the remainder would be conserved onsite under a biological open space easement. The biological open space easement would be buffered by a 100-foot limited building zone easement that overlaps with the 100-foot fire modification zone for Parcels 1-3 in some areas. All of the proposed residential parcels (Parcels 1-3) would access Dehesa Road via driveways that vary in length between approximately 100-400 feet. The existing residential development on Parcel 4 is connected to Dehesa Road by an existing offsite 1220-foot driveway. In addition, these parcels would be served by on-site septic systems/sewer and imported water from the Padre Dam Municipal Water District. No offsite improvements are required for the proposed project.

The project site consists predominantly of native habitat on a gradually steep slope that is moderate to high in floral and faunal species diversity.

M&A conducted a general biological survey of the project site, as well as focused surveys for rare plants and burrowing owl (*Athene cunicularia*) and protocol surveys for quino checkerspot butterfly (*Euphydryas editha quino*) and coastal California gnatcatcher (*Polioptila californica californica*) (Table 1).



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Project Vicinity Map
Shorez TPM - 5550 Dehesa Road
Source: USGS 7.5' Alpine, CA Quadrangle

Figure 1

Table 1. Survey Dates and Times

Survey	Date	Time	Conditions (start to end)	Biologists
General Biology	2007 Feb 21	1030- 1430	Weather: %0-0% cc Wind: 0-1 BS Temperature: 60°-65° F	Gina M. Krantz
Quino Survey #1	2007 Mar 29	1530- 1645	Weather: 0%-0% cc Wind: 2-2 BS Temperature: 77°-75° F	Melissa A. Booker (Permit #797999-6)
Quino Survey #2	2007 Apr 6	1145- 1315	Weather: 50%-30% cc Wind: 1-2 BS Temperature: 78°-75° F	Melissa A. Booker (Permit #797999-6)
Quino Survey #3	2007 Apr 10	1030- 1155	Weather: 0%-0% cc Wind: 1-2 BS Temperature: 74°-74° F	Melissa A. Booker (Permit #797999-6)
Quino Survey #4	2007 Apr 17	1415- 1615	Weather: 0%-0% cc Wind: 1-1 BS Temperature: 70°-70° F	Kyle L. Ince (Permit #797999-6)
Rare Plants Survey	2007 Apr 17	1300- 14-15	Weather: 0%-0% cc Wind: 1-1 BS Temperature: 70°-70° F	Kyle L. Ince
Gnatcatcher Survey #1	2007 Apr 19	0848- 1045	Weather: 0%-0% cc Wind: 0-2 BS Temperature: 62°-72° F	Amanda K. Gonzales (Permit #797999-6)
Quino Survey #5	2007 Apr 25	0915- 1130	Weather: 0%-0% cc Wind: 0-2 BS Temperature: 72°-75° F	Stephen R. Rink (Permit #797999-6)
Gnatcatcher Survey #2	2007 Apr 27	0800- 0950	Weather: 0%-0% cc Wind: 0-1 BS Temperature: 65°-70° F	Antonette T. Gutierrez (Permit #797999-6)
Burrowing Owl Survey #1	2007 May 2	0600- 0740	Weather: 100%-100% cc Wind: 1-1 BS Temperature: 56°-58° F	Antonette T. Gutierrez Gina M. Krantz
Quino Survey #6	2007 May 3	1715- 1815	Weather: 35%-80% cc Wind: 1-3 BS Temperature: 74°-68° F	Melissa A. Booker (Permit #797999-6)
Burrowing Owl Survey #2	2007 May 3	1815- 1945	Weather: 0%-0% cc Wind: 3-3 BS Temperature: 68°-68° F	Melissa A. Booker
Burrowing Owl Survey #3	2007 May 4	0540 - 0700	Weather: 50-40% cc Wind: 1-1 BS Temperature: 52°-56° F	Antonette T. Gutierrez
Gnatcatcher Survey #3	2007 May 4	0700- 0830	Weather: 40%-60% cc Wind: 1-1 BS Temperature: 56°-65° F	Antonette T. Gutierrez (Permit #797999-6)

Survey	Date	Time	Conditions (start to end)	Biologists
Rare Plants Survey	2007 May 8	1055- 1310	Weather: 0%-0% cc Wind: 3-2 BS Temperature: 83°-77° F	Gina M. Krantz
Burrowing Owl Survey #4	2007 May 8	1830- 1930	Weather: 0%-0% cc Wind: 1-0 BS Temperature: 78°-72° F	Antonette T. Gutierrez

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

HABITATS/VEGETATION COMMUNITIES

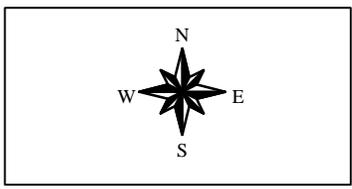
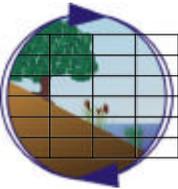
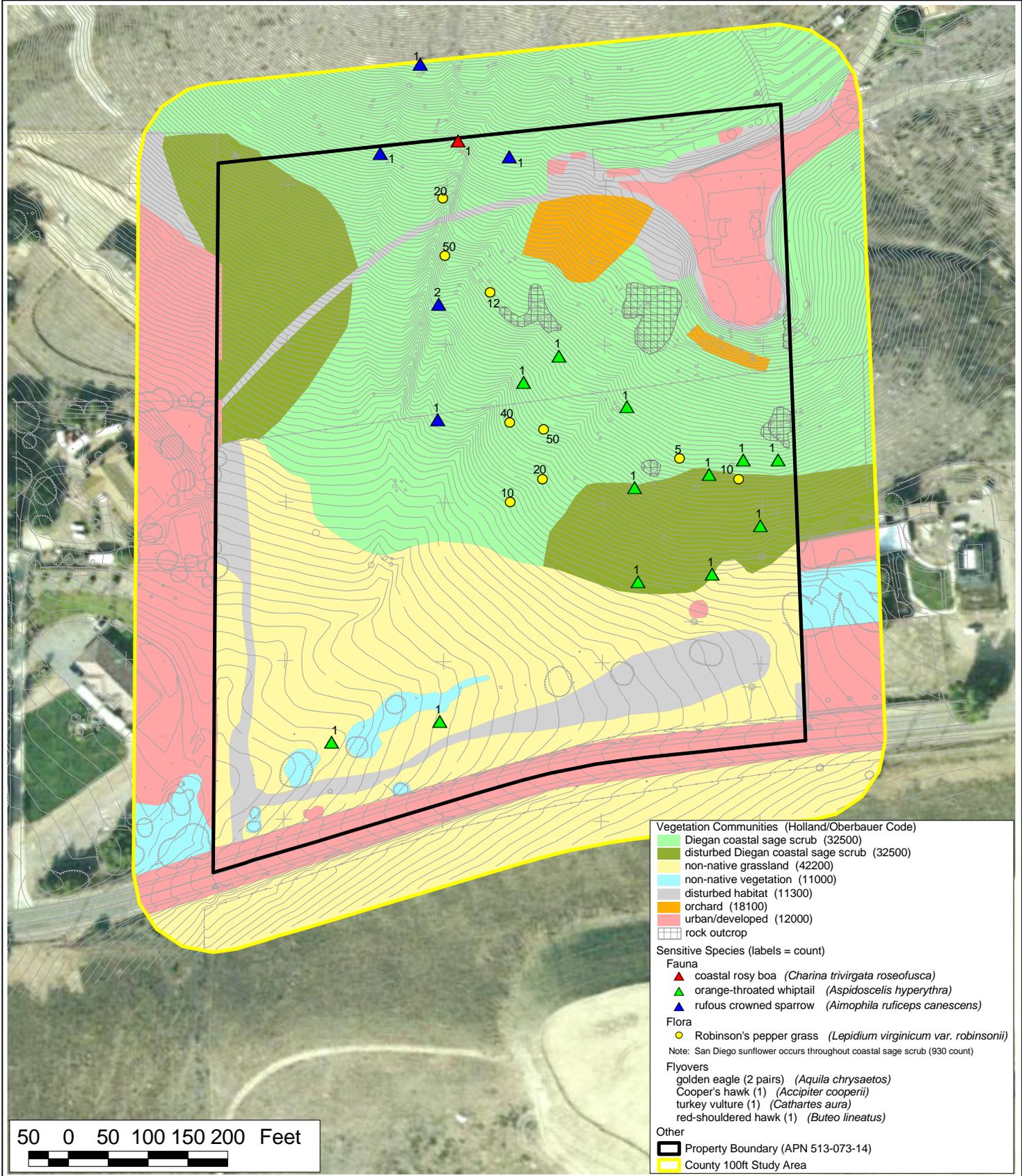
Six vegetation types were identified on the project site during the biological surveys (Table 2; Figure 2). A complete list of the floral species observed and the faunal species observed or detected on the project site during the biological surveys has been included with this report in Appendices 1 and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

Table 2. Existing Vegetation Types within the Project Site

Existing Vegetation Types within the Project Site	Holland/Oberbauer Code	MSCP Tier Habitat Type	Acreage
Diegan Coastal Sage Scrub	32500	Upland, Tier II	5.3
Disturbed Diegan Coastal Sage Scrub	32500	Upland, Tier II	1.9
Non-Native Grassland	42200	Upland, Tier III	3.7
Non-Native Vegetation	11000	Upland, Tier IV	0.2
Disturbed Habitat	11300	Upland, Tier IV	1.3
Orchard	18100	Upland, Tier IV	0.3
Urban/Developed	12000	Upland, Tier IV	1.1
Total:			13.8

The majority of the project site consists of Diegan coastal sage scrub along the northern portion of the property with non-native grassland comprising the southern portion of the property.

The Diegan coastal sage scrub is dominated by California sagebrush (*Artemisia californica*) and San Diego County viguiera (*Viguiera laciniata*), except for 2 areas of disturbed sage scrub, located in the northwestern portion and along the eastern boundary of the property. The disturbed areas of sage scrub habitat were previously mowed for fire clearance around existing neighboring houses, and currently consist of sparsely distributed California sagebrush, interior flat-top buckwheat (*Eriogonum fasciculatum* var. *foliolosum*), and San Diego County viguiera, with non-native grasses and mustards dominating the open, disturbed areas between sage scrub species. The sage scrub habitat is rich in reptilian species due to the presence of open areas throughout the habitat, rock outcrops and



Biological Resources Map
Shorez TPM - 5550 Dehesa Road

Figure 2

abundance of prey base (e.g., Harvester ants, termites, rodents, small birds). Other wildlife species observed or detected by sign within the sage scrub habitat includes numerous bird species and an array of mammals including California ground squirrel (*Spermophilus beecheyi*), desert cottontail rabbit (*Sylvilagus audubonii*), raccoon (*Procyon lotor*), and coyote (*Canis latrans*).

Dominant species within the non-native grassland occurring in the southern portion of the property include slender wild oat (*Avena barbata*), red brome (*Bromus madritensis*), and black mustard (*Brassica nigra*). A small area within the non-native grassland also consists of non-native vegetation, including tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), black mustard, blue elderberry (*Sambucus mexicana*), and Brazilian pepper tree (*Schinus terebinthifolius*). Wildlife species detected within the non-native grassland habitat onsite include numerous butterfly species, lizard species (e.g., side-blotched lizard, orange-throated whiptail) that also occur in the sage scrub habitat, and an abundance of California ground squirrels and burrows.

An existing single-family residence and a few animal enclosures (e.g., doves, goats) are located in the northeastern corner of the property, with a small mission olive (*Olea europea*) orchard located directly south, and a larger sized citrus orchard located directly west of the residence. Areas of disturbed habitat that are devoid of vegetation and consist of compact soils are located in proximity to, and surrounding the existing onsite residence, as well as in the southern portion of the project site. The disturbed areas along the southern portion of the site were previously cleared for the installation/maintenance and associated staging areas for a Sycuan water line parallel to Dehesa Road that subsequently transferred to Padre Dam Municipal Water District.

Although substantial portions of the property consists of disturbed and/or non-native habitat, the overall quality of the habitat on the property is moderate to high due to the floral and faunal species diversity onsite and connectivity to other native habitats to the north.

MSCP Tier I, II, and III habitat types include natural or naturalized vegetation communities that provide habitat for a number of native and some sensitive species of plants and animals, and are ranked in order of sensitivity from highest (Tier I) to lowest (Tier III); Tier IV vegetation types include lands that do not support natural vegetation (County of San Diego 1997, page 4-17 and 2004, page 14).

Regionally, Diegan coastal sage scrub, a MSCP Tier II habitat type, has been substantially reduced in southern California largely due to urban and agricultural development, and several sensitive wildlife species are dependent on this habitat. Non-native grassland, a MSCP Tier III habitat type, is now considered a naturalized vegetation community in southern California that is known to provide important linkages of connectivity for wildlife between areas of native habitat, and support some sensitive animals, as well as a good prey base and suitable hunting habitat for resident, wintering, and transient raptor populations.

Locally, the Diegan coastal sage scrub present on the project site continues off-site, to the north, as part of a much larger block of sage scrub habitat. The habitat to the south and southwest of the

project site, across Dehesa Road, consists of non-native grassland. The non-native grassland present along the southern portion of the project site as well as off-site in the project area consists of opportunistic non-native grasses and forbs that also integrate into very open or disturbed areas of sage scrub habitat. Rural development surrounds the project site to the east, west and southeast. Based on the existing biological conditions, the habitat present on the project site is considered to be of moderate conservation value.

SPECIAL STATUS SPECIES

Two special status floral species and 3 special status faunal species were identified on the project site during the biological surveys, including Robinson's peppergrass (*Lepidium virginicum* var. *robinsonii*), San Diego sunflower (*Viguiera laciniata*), orange-throated whiptail (*Aspidoscelis hyperythra*), rosy boa (*Lichanura trivirgata*), and southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*); in addition, 4 special status bird species were observed flying over the property, including Cooper's hawk (*Accipiter cooperii*), golden eagle (*Aquila chrysaetos*), red-shouldered hawk (*Buteo lineatus*), and turkey vulture (*Cathartes aura*) (Figure 2).

Robinson's peppergrass was observed in several locations, growing within the openings of the sage scrub habitat onsite. The entire site was slowly walked to estimate the Robinson's peppergrass population to be approximately 217 individuals onsite. No other occurrences of this species are recorded within the immediate project vicinity (CNDDDB 2006a, 2007), but Reiser (2001) reports this species in Harbison Canyon. In addition, the undeveloped sage scrub habitat that connects to the project site to the north may potentially support additional populations of Robinson's peppergrass. This native, annual herb is designated as a rare species in California by the California Native Plant Society (CNPS) (List 1B), a Special Plant in the California Natural Diversity Database (CNDDDB), and a County List A sensitive species (County 2006a and CDFG 2007).

San Diego sunflower was the dominant plant species observed throughout the sage scrub habitat onsite. The entire site was slowly walked to estimate the San Diego sunflower onsite population to be approximately 930 individuals. This native annual shrub is designated as a plant of limited distribution by the CNPS (List 4), a Special Plant in the CNDDDB, and a County List D sensitive species (County 2006 and CDFG 2007).

No additional special status floral species were identified on the project site during the focused rare plants survey. The focused rare plants survey was conducted in May when blooming plants and distinctive leafy parts are most easily detected. Transects were walked throughout the project site in areas with potentially suitable soils and/or vegetation to support rare plants on the project site. The field survey notes are included with this report in Appendix 3.

Approximately 12 orange-throated whiptails were observed onsite during biological surveys within Diegan coastal sage scrub and non-native grassland habitats. The onsite population density was estimated to be between 42 and 168 orange-throated whiptails (average=126). This estimate was

based on transect/survey data for orange-throated whiptails within similar habitat as described in a Brattstrom 2000 study. This study showed that when this species was present within a particular area an estimation of 10-40 whiptails/hectare could be used to estimate population density for this species. This diurnal reptile is designated as a California Special Concern (CSC) Species by the California Department of Fish and Game (CDFG), a Special Animal in the CNDDDB, and a County Group 2 sensitive species (County 2006a and CDFG 2006b,c).

One rosy boa was observed onsite within the Diegan coastal sage scrub habitat; rosy boas are mostly nocturnal, but sometimes can be crepuscular and occasionally diurnal. Without conducting nocturnal observational surveys or pitfall surveys, it is difficult to estimate the population density onsite for this species. Based on habitat quality, microhabitat availability (i.e., rock outcroppings), and the lack of territoriality in this species, it is reasonable to assume that more than one rosy boa may occur within the project site. This species is designated as a Special Animal in the CNDDDB and a County Group 2 sensitive species (County 2006 and CDFG 2007).

Six southern California rufous-crowned sparrows, including 3 breeding males, were observed onsite within the Diegan coastal sage scrub habitat. Based on the presence of 3 breeding males onsite, at least 3 territories/pairs are expected to occur onsite. This yearlong resident bird is designated as a CSC species by the CDFG, a Special Animal in the CNDDDB, and a County Group 1 sensitive species (County 2006 and CDFG 2007).

Per the County Report Format and Content Requirements [for] Biological Resources (September 26, 2006), CNDDDB forms for these special status plant and animal occurrences have been completed and submitted to the CDFG, and are included with this report in Appendix 4.

One Cooper's hawk, red-shouldered hawk and turkey vulture, and 2 pairs of golden eagles were observed flying over the property. These raptors potentially utilize the area as foraging habitat; however, none of these species are expected to nest on-site due to the lack of potential nesting habitat. Based on the San Diego County Bird Atlas (2004), the closest golden eagle nesting site to the proposed project is located at least 8,000 feet to the south (square R15). All 4 raptors are designated as County Group 1 sensitive species, the golden eagle is also an MSCP narrow endemic species. Cooper's hawk and golden eagle are also designated as CSC species by the CDFG and Special Animals in the CNDDDB, and golden eagle is designated as a Fully Protected species by the CDFG; however, since the CNDDDB only tracks nesting sites for these species, no CNDDDB forms have been completed for submittal to the CDFG.

No burrowing owls were identified during the focused surveys. The presence of potential burrowing owl habitat and burrows was mapped during the general biological survey conducted in February, and nesting season surveys were conducted in May, in accordance with the methods recommended in the *Burrowing Owl Survey Protocol and Mitigation Guidelines* (California Burrowing Owl Consortium 1993). The field survey notes are included with this report in Appendix 5.

No quino checkerspot butterflies or coastal California gnatcatchers were identified during the protocol surveys. The protocol surveys were conducted by M&A permitted biologists, as authorized under M&A's federal Endangered Species Act (ESA), Section 10(a)(1)(A) permit #797999-6, in accordance with the current USFWS *Quino Checkerspot Butterfly Survey Protocol Information* (USFWS 2002) and *Coastal California Gnatcatcher Presence/Absence Survey Protocol* (USFWS 1997). The 45-day Letter Reports were submitted to the USFWS and are included with this report, along with the survey field notes, in Appendices 6 and 7.

An evaluation of the occurrence potential for special status species on the project site, based on the list provided in the County project initial application review/scoping letter, dated April 27, 2007, has been included with this report in Appendix 8. The only special status species that had a high potential to occur onsite but was not observed was the western mastiff bat (*Eumops perotis*). The western mastiff bat, designated as a CSC species by the CDFG, Special Animal in the CNDDDB, and County Group 2 sensitive species, occurs in many open semi-arid to arid habitats. This bat species forages on a wide variety of insects within a wide range of habitats including coastal sage scrub, non-native grasslands, and in urban areas. The western mastiff bat has a high potential to forage onsite due to the open semi-arid environment and the extent of suitable foraging habitat onsite; however, no suitable roosting habitat (i.e., cliff faces, high buildings, tunnels, trees) occurs onsite.

JURISDICTIONAL WETLANDS AND WATERWAYS

No jurisdictional wetlands or waterways were identified on the project site during the biological surveys.

OTHER UNIQUE FEATURES/RESOURCES

The following unique features and/or resources occur within the project site: raptor foraging habitat, steep slopes, and rock outcroppings.

The onsite Diegan coastal sage scrub and non-native grassland habitats provide potential raptor foraging habitat to raptor species directly observed during biological surveys (e.g., red-shouldered hawk, American kestrel [*Falco sparverius*]) and/or other raptor species that were not observed but are likely to foraging in these habitats.

The project site includes numerous rock outcrops of varying size. These rock outcrops are located generally throughout the Diegan coastal sage scrub and disturbed Diegan coastal sage scrub habitats. Among other functions, rock outcrops provide refugia in large cracks and basking surfaces for reptiles.

Potential Wildlife Corridor

A wildlife corridor analysis was conducted by M&A to determine if the project site provides a wildlife corridor between undeveloped native habitats in the project area. The wildlife corridor analysis predominately consisted of a map-based analysis of regional aerial photography, regional vegetation, and topography of the project area and surroundings; however, the results of the onsite field work, including the presence of tracks, scat, or other sign and documented wildlife sightings within or immediately adjacent to the project site, were also assessed to determine what wildlife species would potentially use any wildlife corridors in the project area. Further, potential wildlife movement impediments and/or likely animal crossings in the project area were analyzed by reviewing aerial photography and regional traffic data, as well as the field investigations of the project area. Regional wildlife corridors/movement studies were reviewed and referenced where applicable.

The premise behind the map-based analysis is that wildlife typically follow the path of least resistance that affords them sufficient cover. This concept of least-cost-path (LCP) corridor analysis is defined and discussed in peer review literature and has been used extensively to develop Geographical Information Systems (GIS) based models for predicting wildlife movement and defining wildlife habitat corridors (Hartley and Aplet undated, Walker and Craighead 1997, Casterline *et al.* 2003). The key assumption of the LCP analysis allows that “animals will follow an optimum route between two points that minimizes their exposure to low quality habitat” (Hartley and Aplet undated). It is a method of delineating the movement routes, which would be most likely used by the majority of wildlife to transit an area. In order to utilize this method, one must assess wildlife habitat quality within and surrounding the project site and one must determine regionally where wildlife would be traveling to and from, or what should be “connected” for the purposes of supporting wildlife populations in perpetuity. The value of habitats for wildlife movement is determined both by the characteristics of the habitat and the species-specific needs.

M&A field investigations found evidence of coyote (i.e., scat) and mesopredators (i.e., tracks) within the project site. In addition, based on the MSCP wildlife corridor studies, coyote were found to be the most abundant wildlife species detected within the closest monitored core area (i.e., Crestridge Ecological Reserve) to the project site (CBI 2003). Therefore, M&A assessed the value of habitats relative to their ability to support the movement of coyote. Although coyote are highly adaptable mammals that utilize urban/suburban environments, peer reviewed literature suggests they are predominately associated with natural areas, defined as open space without urban/suburban development and/or any human related modifications to the habitat. Therefore, the habitats within the project site and vicinity were assessed for potential to support wildlife movement, particularly for coyote, based on their position relative to connecting off-site natural areas, the level of vegetative cover they provide, habitat quality, the topography, and the distance from existing human use and/or development. To assess the habitat quality surrounding the project site and determine regionally

where coyote would be traveling to and from, or what should be “connected”, M&A utilized habitat quality assessments conducted for the MSCP, examined recent aerial photography, and regional vegetation maps.

Within the project region, there are several areas that were assessed as being “high” to “very high” quality habitat at the time that the Habitat Evaluation Map (Appendix 9a & 9b), contained within the County 1997 MSCP Subarea Plan, was created. These “high” and “very high” quality areas include larger undeveloped lands such as Sloan Canyon further south of the project site, within and adjacent to the Sweetwater River and its tributaries generally southeast of the project site, and additional undeveloped habitat northwest and southwest of the project site (Appendix 9a). Areas within and directly adjacent to the project site were mapped as “high quality” or “medium quality” (Appendix 9b); however, additional residential development to the north, northwest, east, and southeast of the project site has occurred since these areas were originally mapped. The areas mapped in the Habitat Evaluation Map as “very high quality” are generally still representative of the better quality habitat within the project area today. These “very high” quality habitat areas in the project vicinity are predominately linear in shape and consist of riparian habitat that generally follows a river and/or a tributary (Appendix 9a). A tributary of Sweetwater River, mapped as “very high” quality habitat, is located east of the proposed project site and generally runs from the northeast to the southwest (Figure 3). Although segments of the Sweetwater River tributary are surrounded by rural development, open habitat, and/or fragmented by Dehesa Road, this riparian corridor provides substantial vegetative cover for wildlife movement, compared to adjacent areas. In addition, a north-south unnamed stream within Harbison Canyon is located west of the project site (Figure 3). Although the unnamed creek within Harbison Canyon was assessed as “very high” quality habitat in the MSCP, more recent aerial photographs depict areas of residential development that encroach into and fragment this narrow and sparse riparian corridor that generally runs along the length of Harbison Canyon Road. Nonetheless, the MSCP Review of Regional Habitat Linkage Monitoring Locations (January 2003) identified the lower portions of the steep slopes adjacent to the unnamed creek in Harbison Canyon as a potential wildlife movement corridor. These linear habitat areas (i.e., unnamed creek/adjacent upland in Harbison Canyon, Sweetwater River tributary) generally run in a north-south direction where they connect to large tracts of higher quality habitat, such as Sloan Canyon (Figure 3).

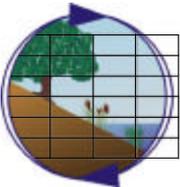
FIGURE 3
POTENTIAL WILDLIFE CORRIDORS
(11 X 17)
(ATTACHED SEPARATELY)

Having identified the areas of higher quality habitat, M&A examined topography to identify paths of least resistance in terms of energetics and likely movement routes (mammals generally move along canyon bottoms, through riparian corridors, and along ridgelines). The project site does not lie within or adjacent to a riparian corridor, canyon bottom, or along a ridgeline, but is located at the southern most extent of steep hillsides/ridgelines that span northward toward El Capitan Reservoir. A ridgeline, including a graded dirt road, ends upslope and to the north of the project site. The steep south-facing slope that dominates the project site would not be expected to favor wildlife movement across the project site. Further, evidence of a proposed development along the ridgeline to the north (i.e., construction of a new private road [Calle de Nicole], graded pads, and individual water tanks for residential parcels), as depicted in Figure 4, suggests that wildlife would not be apt to utilize this portion of the ridgeline in the near future.

Conversely, there are gradually sloping ridgelines in the project area that may serve as potential wildlife corridors. One of these ridgelines with an existing game trail (Figure 3), northwest of the project site, gradually slopes downward near the riparian corridor within Harbison Canyon. Based on the topography and evidence of wildlife use (i.e., established game trail), coyote most likely utilize this route as part of a local wildlife corridor to avoid steep slopes and access habitats to the north and/or south (Figure 3). Further, the riparian corridor of the Sweetwater River tributary southeast of the project site may be a potential movement corridor for coyote that presumably would direct wildlife and require less energy spent due to the natural topography of the river bottom and surrounding steep hillsides. In addition, the Sweetwater River/tributary riparian habitat would provide cover for movement.

An examination of existing human use and/or development relative to potential corridors can help to identify more likely movement routes. The concept of protecting corridors from development is based on the assumption that wildlife avoids areas of human development in favor of higher quality habitats that afford greater protection and distance from human-induced disturbance. Human use and/or activities in proximity to the project site include:

- 1) Existing single-family residences are located to the east and west (including a large dog kennel directly adjacent to the project site to the east) (Figure 3);
- 2) Evidence of a future residential development is located along the ridgeline to the north, as described previously (Figures 3 and 4);
- 3) Existing tribal housing is located on Sycuan property directly south of the project site, as shown in Figure 3. The Sycuan property is not under the County of San Diego jurisdiction, nor is it part of the County's MSCP;



**Evidence of Proposed Development
North of Shores Property**
Shores TPM - 5550 Dehesa Road

Figure 4

4) Dehesa Road runs west-east along the southern perimeter of the project site and traffic along Dehesa Road in the project vicinity (between Harbison Canyon Road and Sycuan Road) is substantially heavier (i.e, 14,200 average weekday volume) than to the east, presumably due to 24-hour Sycuan casino traffic; and

5) Fences are located around the eastern, western, and southern perimeter of project site, and there are fences along the off-site adjacent parcels (i.e., Sycuan tribal land, private property [APNs 513-072-30, 513-072-29]) south of the project site, on the southern side of Dehesa Road.

Although coyote are known to utilize both urban and natural areas including fragmented landscapes (Haas 2000), high-volume traffic roads may be enough of a threat or barrier to impede movement. All of the human activities described above may potentially discourage coyote movement through the project site, but the traffic on Dehesa Road may be the most significant impediment to potential wildlife movement in a north-south direction through the project site.

Although there are undeveloped lands to the north and south, the project site most likely does not serve as or part of a north-south wildlife corridor or linkage based on the following:

- The project site does not lie within or adjacent to a riparian corridor, canyon bottom, or along a ridgeline that generally facilitates wildlife movement;
- Steep slope topography that dominates the site does not favor wildlife movement
- Human development and/or activities such as the high-volume 24-hour traffic on Dehesa Road along the southern perimeter of the site may act as a barrier to wildlife movement.

SIGNIFICANCE OF PROJECT IMPACTS AND PROPOSED MITIGATION

Special Status Species

Analysis of Project Effects

Impacts to a small proportion of San Diego sunflower onsite would occur as a result of the proposed project. This impact is not expected to impact the regional long-term survival of the San Diego sunflower, due to the widespread distribution of this species throughout this ecoregion. Direct impacts to nesting migratory birds could occur as a result of the proposed project. Potential nesting habitat onsite includes coastal sage scrub and non-native grassland habitats.

No direct impacts to the yearlong resident southern California rufous-crowned sparrow are anticipated. This species was consistently observed within the northern portion of the site within coastal sage scrub habitat, outside of the proposed project impact limits. Direct impacts to Diegan coastal sage scrub habitat would slightly reduce the available habitat to southern California rufous-crowned sparrow onsite. Based on the preservation of onsite Diegan coastal sage scrub habitat; connectivity to a larger contiguous tract of Diegan coastal sage scrub to the north; and this species being “fairly common over wide areas” (Unitt 2004); it is not anticipated that the proposed project would impact the regional long-term survival of the southern California rufous-crowned sparrow. No direct impacts to rosy boa are anticipated. This species was observed and expected in the areas of Diegan coastal sage scrub that are to remain in open space or similar habitat offsite.

Similarly, no direct impacts to the orange-throated whiptail are anticipated. This species would still utilize the thinned out scrub habitat within the fuel management zone and remaining unmodified sage scrub habitat onsite and in the project vicinity. Domestic and feral cats from the proposed homes may potentially increase predation upon lizards such as the orange-throated whiptail if they escape outside of their respective yards. However, this potential impact is not anticipated to adversely affect the regional long-term survival of this species.

Although the project site provides potential raptor habitat for the 4 special status raptors (Cooper’s hawk, golden eagle, turkey vulture, and red-shouldered hawk) observed flying over the study area, no breeding/nesting habitat for any of these species occurs onsite; therefore, the proposed project would not impact the nesting success of these species.

Impacts to raptor foraging habitat are anticipated as a result of the proposed project. Total impact to potential raptor foraging habitat (sage scrub and non-native grassland) onsite is less than 5 acres (i.e., 4.4 acres). Potential raptor foraging habitat onsite consists of Diegan coastal sage scrub and non-native grassland; however, the presence of a commercial dog kennel within feet of the site to the east and observations of feral dogs that frequent the project site, decreases the functionality of raptor foraging habitat onsite due to potential raptor avoidance of these potential threats. The surrounding

lands generally include additional potential raptor foraging habitat consisting of sage scrub habitat to the north and non-native grasslands to the south. Based on the availability of large tracts of potential raptor foraging habitat in the project region and onsite within the proposed open space, the proposed project would not have a substantial adverse effect on the regional long-term survival of any potential raptor species occurring within the study area.

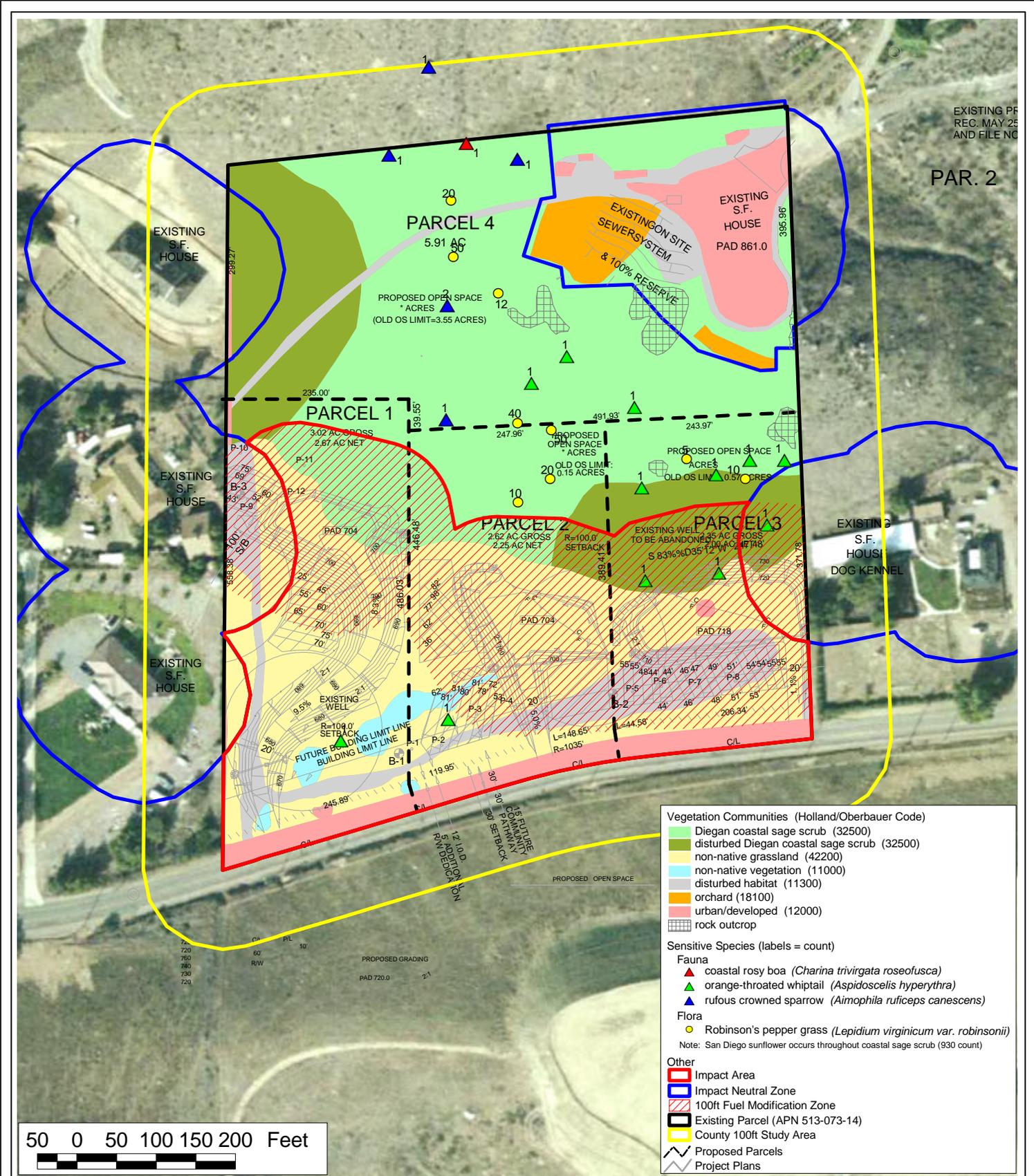
Mitigation Measures and Design Considerations

The project will be conditioned by the County of San Diego Department of Planning and Land Use (DPLU) to avoid impacts to nesting migratory birds. As required by DPLU, no brushing, clearing, and/or grading will be allowed within coastal sage scrub habitat during the breeding season of migratory birds. This is defined as occurring between February 15 and August 31. The Director of Planning and Land Use may waive this condition, through written concurrence from the U.S. Fish and Wildlife Service and the California Fish and Game Department, that no nesting migratory birds are present in the brushing, clearing or grading areas. It is recommended that a pre-construction nesting bird survey be conducted to determine if nesting migratory birds are present within the coastal sage scrub habitat proposed for brushing, clearing or grading. The results of the breeding bird survey may be used to waive the avoidance of the breeding season condition.

Riparian Habitat or Sensitive Natural Community

Analysis of Project Effects

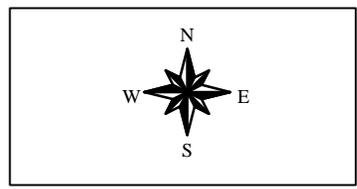
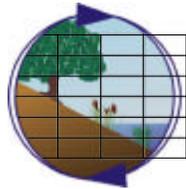
Direct impacts to all habitats within the study area, except orchard, are expected to occur as a result of the proposed project (Figure 5). All areas outside of the proposed biological open space easement and impact neutral zones were included as project impacts. Impact neutral zones include 100 feet around existing developments within or adjacent to the project site. The impact neutral zone within proposed parcel 4 extends beyond 100 feet around the existing single-family residence to account for the existing conditions and uses associated with the residence (Figure 5). Only impacts to Diegan coastal sage scrub (Tier II) and non-native grassland (Tier III), as specified in Table 3, would be significant and require mitigation under the County Guidelines for Determining Significance [for] Biological Resources (September 26, 2006, first revision December 5, 2007).



EXISTING PF
REC. MAY 25
AND FILE NO

PAR. 2

EXISTING S.F. HOUSE
DOG KENNEL



Biological Impacts Map
Shorez TPM - 5550 Dehesa Road

Figure 5

Table 3. Habitat/Vegetation Community Impacts

Existing Vegetation Types within the Project Site	Existing (acres)	Impacts (acres)	Impact Neutral (acres)
Diegan Coastal Sage Scrub	5.3	0.7	0.6
Disturbed Diegan Coastal Sage Scrub	1.9	0.5	0.4
Non-native Grassland	3.7	3.3	0.4
Non-native Vegetation	0.2	0.2	0.0
Disturbed Habitat	1.3	0.7	0.5
Orchard	0.3	0.0	0.3
Urban/Developed	1.1	0.5	0.6
Total:	13.8	5.9	2.8

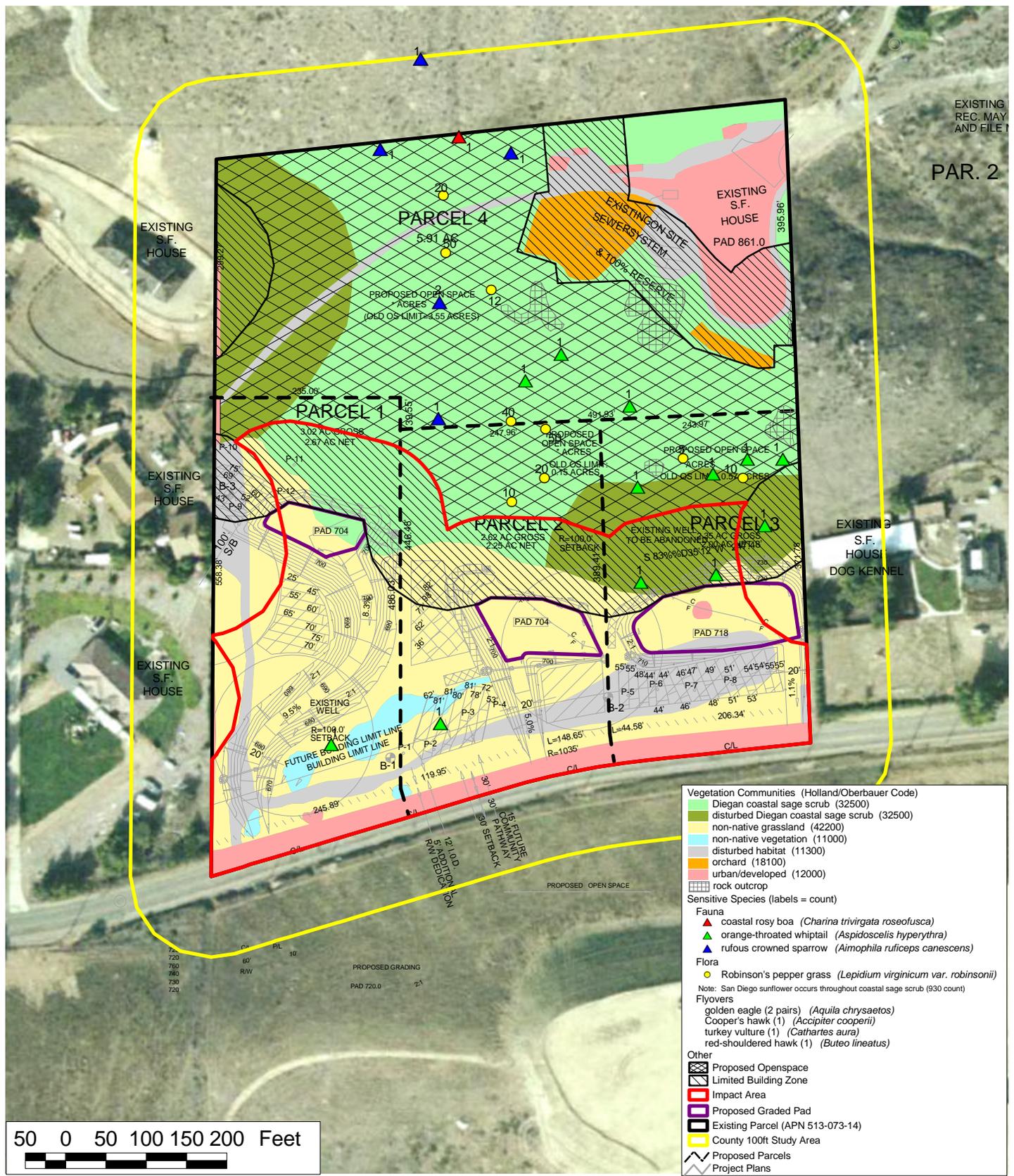
Mitigation Measures and Design Considerations

A 5.1-acre biological open space easement is proposed onsite within the northern portion of the property to mitigate impacts to Diegan coastal sage scrub and non-native grassland to a level below significance (Figure 6). The biological open space has been designed in accordance with County Project Design Guidelines, and includes preservation of in-tier and higher tier habitat (Table 4). The proposed open space would connect with additional Diegan coastal sage scrub habitat offsite to the north (Figure 6).

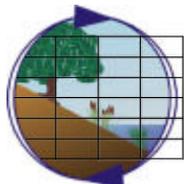
Table 4. Habitat/Vegetation Community Impacts and Mitigation

Existing Vegetation Types within Project Site	MSCP Tier	Existing (acres)	Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)	Preserved Onsite (acres)	Impact Neutral (acres)
Diegan Coastal Sage Scrub	Tier II	5.3	0.7	1.5:1	1.1	4.0	0.6
Disturbed Diegan Coastal Sage Scrub	Tier II	1.9	0.5	1.5:1	0.6	1.0	0.4
Non-native Grassland	Tier III	3.7	3.3	0.5:1	1.7	0.0	0.4
Non-native Vegetation	Tier IV	0.2	0.2	N/A	N/A	0.0	0.0
Disturbed Habitat	Tier IV	1.3	0.7	N/A	N/A	0.1*	0.5
Orchard	Tier IV	0.3	0.0	N/A	N/A	0.0	0.3
Urban/Developed	Tier IV	1.1	0.5	N/A	N/A	0.0	0.6
Total:		13.8	5.9		3.4	5.1	2.8

*Consists of an old dirt road/pathway that traverses the DCSS habitat onsite; DCSS species and other opportunistic plant species have encroached into this disturbed area.



50 0 50 100 150 200 Feet



Proposed Biological Open Space
Shorez TPM - 5550 Dehesa Road

Figure 6

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 (Figure 6). 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.

The on-site biological open space easement will require the landowner to perform basic stewardship measures to ensure the preservation of the land; however, a Resource Protection Plan (RMP) and enhancement activities are not recommended since the proposed open space totals less than 50 acres and does not contain biological resources that would be expected to significantly benefit from active management and/or monitoring. The County will require permanent fencing and signs along the boundary of the biological open space to limit potential encroachment since the open space is proposed within 300 feet of the single-family residences. 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.

Jurisdictional Wetlands and Waterways

Analysis of Project Effects

No impacts to jurisdictional wetlands or waterways would result from the proposed project.

Wildlife Movement and Nursery Sites

Analysis of Project Effects

Based on the conclusion that the project site does not serve as or part of a north-south wildlife corridor or linkage, the proposed project would not interfere substantially with the movement of any native resident or migratory wildlife species or with established native resident or wildlife corridors. The Diegan coastal sage scrub onsite could provide breeding habitat for native wildlife. As previously discussed in the special status species section, several breeding southern California rufous-crowned sparrows were observed within the coastal sage scrub habitat onsite in the northern portion of the site. However, based on the results of the numerous biological surveys conducted onsite, the size of the site, and the surrounding existing development, the proposed project site is not expected to provide a significant number of native wildlife nursery sites such as rookeries and/or bat colonies.

Mitigation Measures and Design Considerations

As required by the County of San Diego DPLU, no brushing, clearing, and/or grading will be allowed within coastal sage scrub habitat during the avian breeding season to prevent impacts to nesting birds. Similar to the migratory bird condition, the Director of Planning and Land Use may waive this condition if no nesting birds are present in the brushing, clearing or grading areas. It is recommended that a pre-construction nesting bird survey be conducted to determine if nesting birds are present within the coastal sage scrub habitat proposed for brushing, clearing or grading. The results of the survey may be used to waive the breeding season condition.

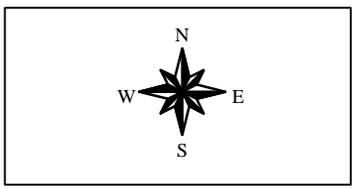
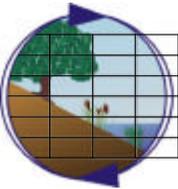
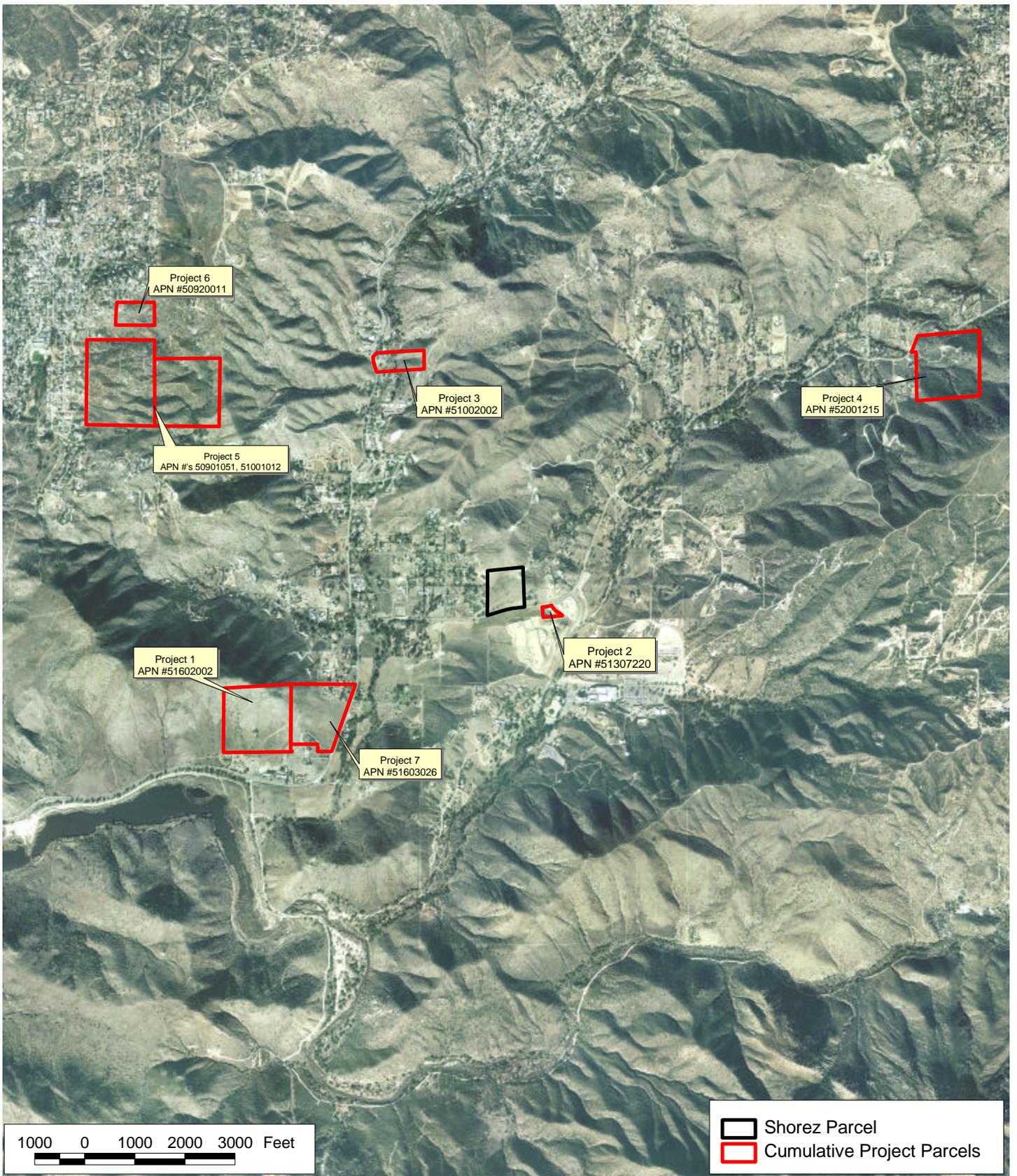
Local Policies, Ordinances, Adopted Plans

Analysis of Project Effects

Provided that the aforementioned mitigation measures for impacts to Diegan coastal sage scrub and non-native grassland are implemented, the proposed project would not conflict with any local policies or ordinances protecting biological resources, and would be consistent with the County MSCP Subarea Plan, RPO and BMO.

CUMULATIVE IMPACTS

A cumulative project study area was delineated to analyze the potential impacts of past, present, and future projects that could cumulatively contribute to the proposed project's significant impacts. The cumulative study area was defined as areas up to approximately 2-mile north, east, and west of the proposed project site and up to approximately 3-miles south of the site. The extent of the study area was based on potential cumulative impacts to the following: 1) Diegan coastal sage scrub (DCSS) and non-native grassland (NNG); and 2) a known nesting site of golden eagles (at least 1.5 miles south of project site) and potential golden eagle foraging habitat in the general vicinity of the nesting site in the project area. A total of 13 past, present, or future discretionary projects, including the proposed project, are located within the study area. Of these 13 projects, 5 project applications were withdrawn from further consideration. The remaining projects, excluding this proposed project, are included in Table 5 and mapped on Figure 7.



Cumulative Impacts/Projects Map
Shorez TPM - 5550 Dehesa Road

Figure 7

Table 5. Discretionary Projects within Cumulative Study Area

Reference # in Figure 7	Project Name	Project Number	Total Project Size	Significant Impacts (acres-vegetation type)	Mitigation (Onsite/Offsite)
1	Singing Hills Estates	TM 5380, P05-034	42 acres	3.55 acres of DCSS; 11.78 acres of NNG	Onsite: 9.86 acres DCSS; Offsite: 1.35 acres of Tier II or higher habitat
2	Sycuan Fire Station/Sprint	P03-122	Not Provided	none	none
3	Walls Tentative Map Parcel	TPM 21008	72 acres	Revised Biological Report was Required by County; Significant Impact Acreages Pending Submittal of Revised Biological Report	Revised Biological Report was Required by County; Proposed Mitigation Pending Submittal of Revised Biological Report
4	Dotts	TM 5300	38 acres	9.43 acres of DCSS; 8.38 acres of southern mixed chaparral (SMC)	Onsite: 5.32 acres of DCSS, 15 acres of SMC; Offsite: 8.83 acres of DCSS
5	Crest	TM 5332	91 acres	44.52 acres of SMC	Onsite: 35.5 acres of SMC, 3.6 acres of southern coast live oak riparian forest, and 7.4 acres of DCSS; Offsite: 1.6 acres of Tier III habitat in conservation bank
6	Dyke	TPM 20899	8.33 acres	3.85 acres of granitic SMC	Onsite: 3.85 acres of granitic SMC
7	Dehesa Road/Sloan Canyon	TM 5485	31.89 acres	3.55 acres of DCSS, 11.78 acres of NNG	Onsite: 9.86 acres of DCSS, 0.16 acres of developed land; Offsite: 1.35 acres of Tier III or higher Tier habitat

The proposed project would result in additional, cumulative impacts to sage scrub and non-native grassland habitat, both of which are considered to be potential foraging habitat for golden eagles;

however, implementation of the project avoidance and mitigation measures would reduce impacts to less than cumulatively considerable under the MSCP and ensure preservation of in-kind, better quality habitat both onsite and elsewhere in the ecoregion. The MSCP was designed to compensate for the loss of biological resources throughout the program's region; therefore, projects that conform to the MSCP, as specified by the County of San Diego MSCP Subarea Plan, RPO, BMO and Guidelines for Determining Significance [for] Biological Resources, would not result in cumulatively considerable impacts for those biological resources adequately covered by the program.

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ATTACHMENTS

APPENDIX 1. FLORA SPECIES OBSERVED ON-SITE

Habitat Types:

- C = Diegan Coastal Sage Scrub
- D = Disturbed Diegan Coastal Sage Scrub
- G = Non-native Grassland
- N = Non-native Vegetation
- H = Disturbed Habitat
- O = Orchard
- U = Urban/Developed

* = Denotes non-native flora species.

Scientific Name	Common Name	Habitat
CRYPTOGAMS		
Selaginellaceae - Spike-Moss Family		
<i>Selaginella bigelovii</i> Underw.	Bigelow's mossfern	C
DICOTYLEDONS		
Amaranthaceae - Amaranth Family		
* <i>Chenopodium murale</i> L.	nettle-leaf goosefoot	N
Anacardiaceae - Sumac Family		
* <i>Schinus terebinthifolius</i> Raddi	Brazilian pepper tree	N
Apiaceae - Carrot Family		
<i>Apiastrum angustifolium</i> Nutt.	mock parsley	G
<i>Daucus pusillus</i> Michaux	rattlesnake weed	C
Asteraceae - Sunflower Family		
<i>Artemisia californica</i> Less.	California sagebrush	C,D
<i>Baccharis sarothroides</i> Gray	broom baccharis	N
<i>Brickellia californica</i> (Torrey & Gray) A. Gray	California brickellbush	D
* <i>Chamomilla suaveolens</i> (Pursh.) Ryd.	pineapple weed	D
* <i>Centaurea melitensis</i> L.	totalote	G,D
* <i>Cotula australis</i> (Sieber) Hook. f.	Australian brass-buttons	G
<i>Eriophyllum confertiflorum</i> (DC.) A. Gray var. <i>confertiflorum</i>	long-stem golden-yarrow	C
* <i>Filago gallica</i> L.	narrow-leaf filago	G
<i>Heterotheca grandiflora</i> Nutt.	telegraph weed	G
* <i>Hypochoeris glabra</i> L.	smooth cat's-ear	G
* <i>Sonchus oleraceus</i> L.	common sow thistle	G
<i>Viguiera laciniata</i> Gray	San Diego County viguiera	C,D
<i>Xanthium strumarium</i> L.	cocklebur	G
Boraginaceae - Borage Family		
<i>Amsinckia menziesii</i> (Lehm.) Nelson & J. F. Macbr. var. <i>intermedia</i> (Fischer & C. Meyer) Ganders	rancher's fiddleneck	D
<i>Cryptantha intermedia</i> (Gray) Greene	nievitas, cryptantha	C
<i>Pectocarya linearis</i> (Ruíz Lopez & Pavón) DC. ssp. <i>ferocula</i> (I. M. Johnston) Thorne	slender pectocarya	D
Brassicaceae - Mustard Family		
* <i>Brassica nigra</i> (L.) Koc	black mustard	D,G,H,
* <i>Hirschfeldia incana</i> (L.) Lagr.-Fossat	short-pod mustard	D,G
* <i>Raphanus sativus</i> L.	radish	G
* <i>Sisymbrium orientale</i> L.	Hare's ear cabbage	G

Scientific Name	Common Name	Habitat
Caprifoliaceae - Honeysuckle Family <i>Sambucus mexicana</i> DC.	blue elderberry	N
Chenopodiaceae - Goosefoot Family * <i>Salsola tragus</i> L.	Russian thistle	G
Convolvulaceae - Morning-Glory Family <i>Calystegia macrostegia</i> (Greene)Brumm. ssp. <i>tenuifolia</i> (Abrams)Brumm.	narrow-leaf morning-glory	N
Crassulaceae - Stonecrop Family <i>Dudleya pulverulenta</i> (Nutt.)Britt. & Rose	chalk-lettuce	C
Cucurbitaceae - Gourd Family <i>Marah macrocarpus</i> (Greene)Greene var. <i>macrocarpus</i>	wild-cucumber	C
Cuscutaceae - Dodder Family <i>Cuscuta californica</i> Hook & Arn. var. <i>californica</i>	Witch's hair	C
Euphorbiaceae - Spurge Family <i>Chamaesyce polycarpa</i> (Benth.)Millsp. <i>Croton setigerus</i> Hook. * <i>Ricinus communis</i> L.	small-seed sandmat doveweed castor-bean	C,D C N
Fabaceae - Pea Family <i>Lotus purshianus</i> (Benth.) Clements & E. G. Clements var. <i>purshianus</i> <i>Lotus scoparius</i> (Nutt.)Ottley var. <i>scoparius</i> <i>Lupinus bicolor</i> Lindley <i>Lupinus truncatus</i> Hook & Arn.	Spanish-clover coastal deerweed miniature lupine collar lupine	G C,D C,D D
Geraniaceae - Geranium Family * <i>Erodium cicutarium</i> (L.)L'Hér. Ex Aiton * <i>Erodium moschatum</i> (L.)L'Hér.	red-stem filaree white-stem filaree	G G
Hydrophyllaceae - Waterleaf Family <i>Phacelia cicutaria</i> Greene var. <i>hispida</i> Gray <i>Phacelia parryi</i> Torr.	caterpillar phacelia Parry's phacelia	D D
Lamiaceae - Mint Family <i>Salvia apiana</i> Jeps. <i>Salvia columbariae</i> Benth.	white sage chia	C D
Nyctaginaceae - Four-O'Clock Family <i>Mirabilis californica</i> A. Gray	California wishbone plant	D

Scientific Name	Common Name	Habitat
Oleaceae - Olive Family * <i>Olea europea</i> L.	mission olive	O
Onagraceae - Evening-Primrose Family <i>Camissonia californica</i> (Torrey & A. Gray) Raven <i>Camissonia intermedia</i> Raven.	false-mustard intermediate sun cup	D D
Papaveraceae - Poppy Family <i>Eschscholzia californica</i> Cham.	California poppy	O,D
Plantaginaceae - Plantain Family <i>Antirrhinum nuttallianum</i> Benth. ssp. <i>nuttallianum</i> <i>Linaria canadensis</i> (L.)Dum.Cours.	Nuttall's snapdragon large blue toadflax	C D
Polygonaceae - Buckwheat Family <i>Chorizanthe fimbriata</i> Nutt. var. <i>fimbriata</i> <i>Eriogonum fasciculatum</i> Benth. var. <i>foliolosum</i> (Nutt.)S. Stokes	fringed spineflower interior flat-top buckwheat	C C,D
Portulacaceae - Purslane Family <i>Calandrinia ciliata</i> (Ruíz & Pavón) DC.	red maids	G
Rutaceae - Rue Family <i>Citrus</i> sp.	orange tree	O
Scrophulariaceae - Figwort Family <i>Keckiella antirrhinoides</i> (Benth.)Straw var. <i>antirrhinoides</i>	yellow bush penstemon	C
Solanaceae - Nightshade Family * <i>Nicotiana glauca</i> Graham	tree tobacco	G,N
Themidaceae – Brodiaea Family <i>Dichelostemma capitatum</i> Alph.Wood ssp. <i>capitatum</i>	blue dicks	C
MONOCOTYLEDONS		
Poaceae - Grass Family * <i>Avena barbata</i> Link * <i>Bromus madritensis</i> L. ssp. <i>rubens</i> (L.)Husn. * <i>Cynodon dactylon</i> (L.)Pers. <i>Muhlenbergia rigens</i> (Benth.)Hitcch. * <i>Schismus barbatus</i> (L.) Thell.	slender wild oat red brome Bermuda grass deergrass Mediterranean schismus	G G,D G C G

APPENDIX 2. FAUNA SPECIES OBSERVED OR DETECTED WITHIN THE STUDY AREA
Habitat Types:

- C = Diegan Coastal Sage Scrub
 D = Disturbed Diegan Coastal Sage Scrub
 G = Non-Native Grassland
 N = Non-native Vegetation
 H = Disturbed Habitat
 O = Orchard
 U = Urban/Developed

 F = Flyover
 L = Utility Lines

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.

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.
 * = denotes introduced species

Common Name	Scientific Name	Habitat	Abundance	Status
BUTTERFLIES				
Hesperiidae (Skippers)				
funereal duskywing	<i>Erynnis funeralis</i>	G,D		
Lycaenidae (Gossamer-wing Butterflies)				
marine blue	<i>Leptotes marina</i>	C,D		
Nymphalidae (Brush-footed Butterflies)				
painted lady	<i>Vanessa cardui</i>	G		
west coast lady	<i>Vanessa anabella</i>	C,G		
common buckeye	<i>Junonia coenia</i>	G		
Pieridae (Whites and Sulfurs)				
cabbage white	<i>Pieris rapae</i>	D		
checkered (=common) white	<i>Pontia protodice</i>	C,D		
Pacific (=Sara) orangetip	<i>Anthocharis sara</i>	G,D		
Riodinidae (Metalmarks)				
Behr's metalmark	<i>Apodemia virgulti</i>	C		
REPTILES				
Boidae (Boas)				
coastal rosy boa	<i>Lichanura trivirgata roseofusca</i>	C		
Colubridae (Colubrids)				
coachwhip	<i>Masticophis flagellum</i>	C		
gophersnake	<i>Pituophis catenifer</i>	C		
California kingsnake	<i>Lampropeltis getula californiae</i>	G,H		
Phrynosomatidae				
western fence lizard	<i>Sceloporus occidentalis</i>	C,N		
granite spiny lizard	<i>Sceloporus orcutti</i>	C,U		
side-blotched lizard	<i>Uta stansburiana</i>	C,D,G		
Teiidae (Whiptails and Relatives)				
orange-throated whiptail	<i>Aspidoscelis hyperythra</i>	C,D,G		
BIRDS				
Accipitridae (Hawks and Harriers)				
Cooper's hawk	<i>Accipiter cooperii</i>	F	C	M, R
red-shouldered hawk	<i>Buteo lineatus</i>	F	C	R

Common Name	Scientific Name	Habitat	Abundance	Status
red-tailed hawk	<i>Buteo jamaicensis</i>	F	C	R, M, W
golden eagle	<i>Aquila chrysaetos</i>	F	U	R, M, W
Aegithalidae (Bushtit)				
bushtit	<i>Psaltriparus minimus</i>	C	C	R
Apodidae (Swifts)				
white-throated swift	<i>Aeronautes saxatalis</i>	D, G	C	R
Cardinalidae (Grosbeaks, Buntings, and Relatives)				
blue grosbeak	<i>Passerina caerulea</i>	C	C	M, S
Cathartidae (American Vultures)				
turkey vulture	<i>Cathartes aura</i>	F	C	T, R
Charadriidae (Plovers and Relatives)				
killdeer	<i>Charadrius vociferous</i>	D	C	R
Columbidae (Pigeons and Doves)				
mourning dove	<i>Zenaida macroura</i>	F, C	C	R
Emberizidae (Sparrows, Blackbirds and Relatives)				
California towhee	<i>Pipilo crissalis</i>	C	C	R
song sparrow	<i>Melospiza melodia</i>	C	A	R
white-crowned sparrow	<i>Zonotrichia leucophrys</i>	C	C	M, W
Falconidae (Caracaras and Falcons)				
American kestrel	<i>Falco sparverius</i>	F, L	C	R
Fringillidae (Finches)				
house finch	<i>Carpodacus mexicanus</i>	F, L	A	R
lesser goldfinch	<i>Carduelis psaltria</i>	C	C	M, R
Lawrence's goldfinch	<i>Carduelis lawrencei</i>	C	C	M, S, W
American goldfinch	<i>Carduelis tristis</i>	F	C	M, R
Hirundinidae (Swallows)				
northern rough-winged swallow	<i>Stelgidopteryx serripennis</i>	F	C	M, S
cliff swallow	<i>Petrochelidon pyrrhonota</i>	F	C	M, S
barn swallow	<i>Hirundo rustica</i>		U	M, W, S
Icteridae (Blackbirds, Meadowlarks, Orioles, and Relatives)				
Brewer's blackbird	<i>Euphagus cyanocephalus</i>	C	C	R, M, W
Bullock's oriole	<i>Icterus bullockii</i>	C	C	M, S, W
Timaliidae (Wrentit)				
wrentit	<i>Chamaea fasciata</i>	C	C	R

Common Name	Scientific Name	Habitat	Abundance	Status
Trochilidae (Hummingbirds)				
Anna's hummingbird	<i>Calypte anna</i>	F	C	R
Costa's hummingbird	<i>Calypte costae</i>	D	C	R
Troglodytidae (Wrens)				
house wren	<i>Troglodytes aedon</i>	U	C	M, W, S
Tyrannidae (Tyrant Flycatchers)				
black phoebe	<i>Sayornis nigricans</i>	D,G	C	R
Say's phoebe	<i>Sayornis saya</i>	C	C	W
ash-throated flycatcher	<i>Myiarchus cinerascens</i>	C	C	M, S
Cassin's kingbird	<i>Tyrannus vociferans</i>	C	C	R, M
western kingbird	<i>Tyrannus verticalis</i>	G	C	M, S
Corvidae (Jays, Magpies, and Crows)				
American crow	<i>Corvus brachyrhynchos</i>	F	A	R
common raven	<i>Corvus corax</i>	F	C	R
Parulidae (Warblers)				
yellow-rumped warbler	<i>Dendroica coronata</i>	N	C	M, W, S
Emberizidae (Sparrows, Blackbirds and Relatives)				
white-crowned sparrow	<i>Zonotrichia leucophrys</i>	C	C	M, W
MAMMALS				
Canidae (Foxes, Wolves, and Relatives)				
coyote	<i>Canis latrans</i>	D,H		
feral dog	<i>Canis familiaris</i>	D,G,H		
Leporidae (Rabbits and Hares)				
desert cottontail	<i>Sylvilagus audubonii</i>	C,D		
Procyonidae (Raccoons and Relatives)				
northern raccoon	<i>Procyon lotor</i>	C		
Sciuridae (Squirrels, Chipmunks, and Marmots)				
California ground squirrel	<i>Spermophilus beecheyi</i>	C,D,G		

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): _____

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Aspidoscelis hyperythra*

Common Name: orange-throated whiptail

Species Found? Yes No _____ If not, why? _____
 Total No. Individuals 10 Subsequent Visit? yes no
Is this an existing NDDDB occurrence? _____ no unk.
 Yes, Occ. # _____
 Collection? If yes: _____
 Number _____ Museum / Herbarium _____

Reporter: Gina M. Krantz
Address: Merkel & Associates, Inc.
5434 Ruffin Road, San Diego CA 92123
E-mail Address: gkrantz@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.: _____
 Quad Name: Alpine Elevation: _____
 T 16S R 1E Sec 12, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): _____
 T _____ R _____ Sec _____, _____ ¼ of _____ ¼, 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: APN 513-073-14

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

Diegan coastal sage scrub and non-native grassland habitat

Other rare taxa seen at THIS site on THIS date: Lepidium virginicum var. robinsonii, Viguiera laciniata, Lichanura trivirgata, and Aimophila ruficeps canescens; separate CNDDDB forms also submitted

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

Immediate AND surrounding land use: _____
 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): _____
 Other: direct visual identification

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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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 (mmldd/yyyy): _____

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Lepidium virginicum var. robinsonii*

Common Name: Robinson's peppergrass

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

Total No. Individuals 217 Subsequent Visit? yes no

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

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

Reporter: Gina M. Krantz

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

E-mail Address: gkrantz@merkelinc.com

Phone: (858) 560-5465

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

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

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

County: San Diego Landowner / Mgr.: _____

Quad Name: Alpine Elevation: _____

T 16S R 1E Sec 12, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): _____

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, 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: APN 513-073-14

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

openings within Diegan coastal sage scrub habitat

Other rare taxa seen at THIS site on THIS date: Viguiera laciniata, Aspidoscelis hyperythra, Lichanura trivirgata, and Aimophila ruficeps canescens; separate CNDDDB forms also submitted

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

Immediate AND surrounding land use:

Visible disturbances:

Threats:

Comments:

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

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

Photographs: (check one or more)

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

May we obtain duplicates at our expense? yes no

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): _____

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Lichanura trivirgata*

Common Name: rosy boa

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

Reporter: Gina M. Krantz
Address: Merkel & Associates, Inc.
5434 Ruffin Road, San Diego CA 92123
E-mail Address: gkrantz@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.: _____
 Quad Name: Alpine Elevation: _____
 T 16S R 1E Sec 12, _____ ¼ of _____ ¼, Meridian: H M S
 Source of Coordinates (GPS, topo. map & type): _____
 T _____ R _____ Sec _____, _____ ¼ of _____ ¼, 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: APN 513-073-14

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

Diegan coastal sage scrub habitat

Other rare taxa seen at THIS site on THIS date: Lepidium virginicum var. robinsonii, Viguiera laciniata, Aspidoscelis hyperythra, and Aimophila ruficeps canescens; separate CNDDDB forms also submitted

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor
 Immediate AND surrounding land use: _____
 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): _____
 Other: direct visual identification

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

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): _____

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Viguiera laciniata*

Common Name: San Diego sunflower

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

Total No. Individuals 930 Subsequent Visit? yes no

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

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

Reporter: Gina M. Krantz

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

E-mail Address: gkrantz@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.: _____

Quad Name: Alpine Elevation: _____

T 16S R 1E Sec 12, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): _____

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, 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: APN 513-073-14

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

Diegan coastal sage scrub habitat

Other rare taxa seen at THIS site on THIS date: Lepidium virginicum var. robinsonii, Aspidoscelis hyperythra, Lichanura trivirgata, and Aimophila ruficeps canescens; separate CNDDDB forms also submitted

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

Immediate AND surrounding land use:

Visible disturbances:

Threats:

Comments:

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

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

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Aimophila ruficeps canescens*

Common Name: Southern California rufous-crowned sparrow

Species Found? Yes No If not, why? _____

Total No. Individuals 5 Subsequent Visit? yes no

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

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

Reporter: Gina M. Krantz

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

E-mail Address: gkrantz@merkelinc.com

Phone: (858) 560-5465

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

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

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

County: San Diego Landowner / Mgr.: _____

Quad Name: Alpine Elevation: _____

T 16S R 1E Sec 12, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): _____

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, 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: APN 513-073-14

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

Diegan coastal sage scrub habitat

Other rare taxa seen at THIS site on THIS date: Lepidium virginicum var. robinsonii, Viguiera laciniata, Aspidoscelis hyperythra, and Lichanura trivirgata; separate CNDDDB forms also submitted

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

Immediate AND surrounding land use:

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): _____
- Other: direct visual identification

Photographs: (check one or more)

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

May we obtain duplicates at our expense? yes no

APPENDIX 4. FOCUSED RARE PLANTS SURVEY FIELD NOTES

4/17/07 KLI Rare Pitt Survey

Lotus sp.

~~Amsinckia intermedia~~

~~Eriogonum set~~

~~Avena bar~~

~~Lupinus bicolor~~

~~Phacelia parryi~~

~~Filago gallica~~

~~Camissonia~~

~~Mirabilis calif~~

~~Schismus barbatus~~

~~Chamaesyce sp.~~

~~Apasternum ang~~

~~Chorizanthe sp (2 + 15)~~

~~Pectocarya lin~~

~~uta~~

~~Chorizanthe sp~~

~~Schismus barbatus~~

Kestrel

Bridelia calif

Muhlenbergia micro

Chenopodium murale

Ca towhee

Western Kingbird

AmCo

RT Hawk

Pomegranate

Fig

~~Erodium moschatum~~

~~Sonchus oleraceus~~

ADDTL
 RARE PLANT SURVEY / GPS
 5/8/07 AMKE

2 addtl
 sens. spp mapping

START: 10:55 End: 1:10 0% ; 83°F ; 3 BS
 0% ; 77°F ; 2 BS

(S) = sample taken back to office to ID

}	DISCOVERED/NNG	Complete sect (dirt road) CWHY	<u>DCSS</u>	<u>NNG</u>	<u>DCSS</u>
		CAS calls			
		CAS 1			
		UNID caterpillar on mustard (P)			
		dozens common rani rabbit			
		WST			
		med-ly burrow (2 openings) pit taken Reptile food in one entrance Q more plants observed			

NNG (up slope) above discend next mangrove patch
 Q rare plants observed - other than *Strombosia*
10' dia pepper
and
50' Sulfur

DCSS

AmGO
 Choringanthus fibrosus
 Muhlenbergia microsperma

AMKE perched
 on elect
 line on
 S bank
 1 pair of LHTH
 flyover ; looking below

Fly over road adjacent to site
and over pond
site

GOEA

(2 pairs) } interspecific interaction
circling; rising up } between presumably ♂s
some; gliding than } flew to NE out of sight

1 pair appears over ~~over~~ stream
bank

flying ^{high} over site

one went back over to eastern
side of hill ^{outside} site

other continues to fly high ^{scattered}

DCSS

3 (purple flower) *Antirrhinum nitidum* GPS point

reddish orange butterfly flew ^{fast} past me
(maybe checkered pattern
purple lady?)

DESS/NGS up near road next to boat
camp

Mirabilis
blue dicks

NGS lower Area (SW part)

Spanish lotus (5)

Common buckeye

APPENDIX 5. FOCUSED BURROWING OWL SURVEYS FIELD NOTES

BUON 5/12/07
41 Surveys 8600 start 100% cc; 56 F; BS 1 E
ATG, Gmiv
100% SBE; BS 1
CHFC

Ground squirrels observed Dennis Street
(one pruned on fence)

Ground squirrel calls heard through ground
site upon fence
bumms throughout site

- AMCR
- CATO
- HOFI
- UEBO
- MOOO
- BWSW

lowed portions of site recently filled up dirt
~~or tower~~ planned (discuss) for maintenance

* Leghäm 88 (Sample 1100)
mammals only 1100

Dehesa Blanca #2

May 3 2007 (Sat @ car +
185 - 1945 (surveyed until 2000)

sky 80% wind 3 BS T=68°F

sunsets" behind mtns @ 1900
more PMCR on-site toward
sunset

CalGS across st. to S. 1
on-site in S. central area

CATD MODO Dead RC ^{blue} plastic wand

WIKI HOFI CEBU

WIKI WTSW KILL

AMCR NRSW AMKE

ANHU LEGO

RCSP more p.p.i.s. - further

upside to it

Domestic/Feral Dog Park

♀ - bitch w/ 4 pups

coyotescat

5/4/07

4/5/07

Rehesa BUOW #3 ATG

0540 - 1600

giving 25 meters

50% 52° WBS!

16.5m 56° 1 g/lite 2000

CATO

TRA

CAS

HOF

ANHO

BOSH

AMLO

AMLE

NODD

BLP

BUOW

CCV

Cott. by 2000
Ca ground squirrel

old pellet with bones of
... ..

Have ground squirrel on site NNG
on property to do

No signs of
site or near burrows on-site,
No BUOW observed

OBS Dehesa Boow #4

5/8/07

sunset

at day

0630 0% OBS E 78°

0830 0% OBS 72°

LEGO

Ca Ground Squirrel

HOPF

CATC

AMCR

Western Fence Lizard

AMKE

Sage-blatched Lizard

CARI

RLSP

MOBO

KILL off site to South

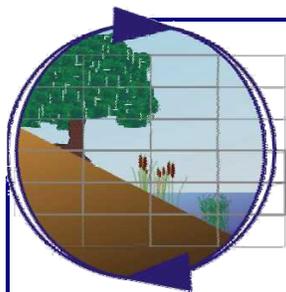
BOSH

Walked flat open areas with flash light.

Used scope to inspect off site. NNE to South and fence lines. to South, West, & East

NO Boow found

**APPENDIX 6. USFWS 45-DAY LETTER REPORT OF
PROTOCOL QUINO CHECKERSPOT BUTTERFLY SURVEYS AND FIELD NOTES**



Merkel & Associates, Inc.

5434 Ruffin Road, San Diego, CA 92123

Tel: 858/560-5465 • Fax: 858/560-7779

e-mail: associates@merkeline.com

June 14, 2007
M&A #07-015-01

Ms. Sandra Marquez
Recovery Permit Coordinator
U.S. Fish and Wildlife Service – Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road
Carlsbad, CA 92011

Re: 45-day Letter Report of Quino Checkerspot Butterfly (*Euphydryas editha quino*) Protocol Surveys for the 5550 Dehesa Road Project, Located in the Unincorporated Portion of El Cajon, San Diego County

Dear Ms. Marquez:

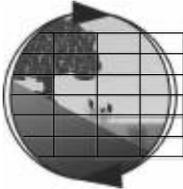
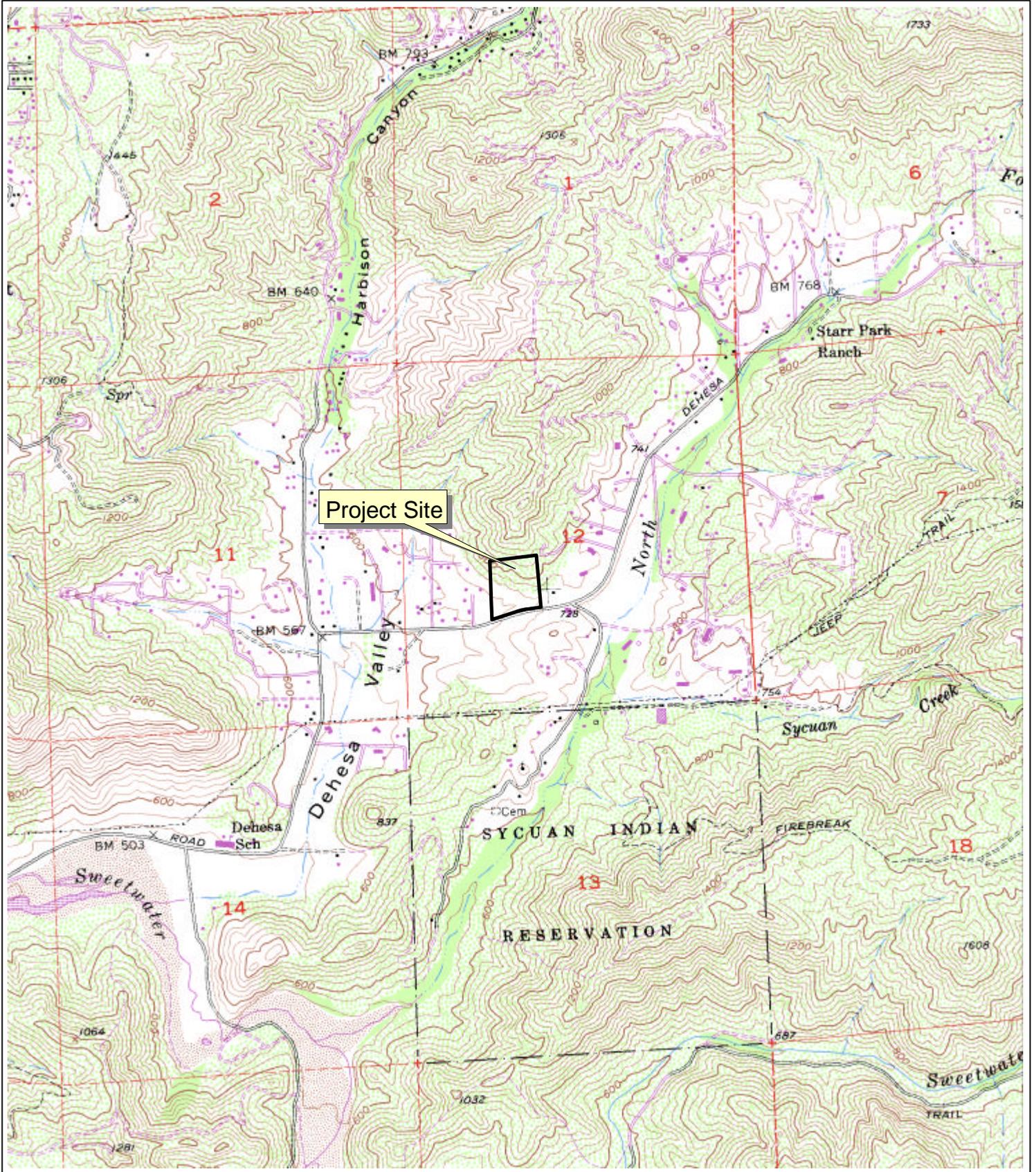
SUMMARY

Merkel & Associates, Inc. (M&A) conducted protocol surveys for the federally-listed, endangered quino checkerspot butterfly (*Euphydryas editha quino*) on the 5550 Dehesa Road project site (Assessors Parcel Number 513-073-14), as authorized under M&A's federal Endangered Species Act, Section 10(a)(1)(A) permit #797999-6. These surveys were conducted in accordance with the current U.S. Fish and Wildlife Service's *Quino Checkerspot Butterfly Survey Protocol Information* (USFWS 2002). The project site contains 12.30 acres of potential quino habitat. No quino checkerspot butterflies were detected on the project site during the protocol surveys. This letter report has been prepared and submitted to the client and USFWS in accordance with the requirements of M&A's 10a permit.

INTRODUCTION

Merkel & Associates, Inc. (M&A) conducted protocol surveys for the federally-listed, endangered quino checkerspot butterfly (*Euphydryas editha quino*) on the 5550 Dehesa Road project site (Assessors Parcel Number 513-073-14). The purpose of these surveys was to determine the presence or absence of the quino checkerspot butterfly on the project site.

The approximate 13-acre project site is located within the U.S. Fish and Wildlife Service's (USFWS) recommended quino survey area 2 (2006), within Section 12, Township 16 South, Range 1, East of the U.S. Geological Survey Alpine, California Quadrangle (Figure 1).



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Project Vicinity Map
5550 Dehesa Road
Source: USGS 7.5' Alpine, CA Quadrangle

Figure 1

METHODS

M&A biologist, Gina M. Krantz, conducted a pre-survey, habitat site assessment on February 21, 2007. M&A permitted biologists conducted protocol surveys for the quino checkerspot butterfly in the spring of 2007, as authorized under M&A’s federal Endangered Species Act, Section 10(a)(1)(A) permit #797999-6 (Table 1).

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

Survey #	Dates	Time	Conditions (start-end)	Permitted Biologist(s)	*Acres/ Hour	*Acres/ Day
1	29 March 2007	1530-1645	Weather: 0%-0% cc Wind: 2-2 BS Temperature: 77°-75° F	Melissa A. Booker	8.2	12.3
2	6 April 2007	1145-1315	Weather: 50%-30% cc Wind: 1-2 BS Temperature: 78°-75° F	Melissa A. Booker	8.2	12.3
3	10 April 2007	1030-1155	Weather: 0%-0% cc Wind: 1-2 BS Temperature: 74°-74° F	Melissa A. Booker	8.2	12.3
4	17 April 2007	1415-1615	Weather: 0%-0% cc Wind: 1-1 BS Temperature: 70°-70° F	Kyle L. Ince	6.15	12.3
5	25 April 2007	0915-1130	Weather: 0%-0% cc Wind: 0-2 BS Temperature: 72°-75° F	Stephen R. Rink	5.5	12.3
6	3 May 2007	1715-1815	Weather: 35%-80% cc Wind: 1-3 BS Temperature: 74°-68° F	Melissa A. Booker	12.3	12.3

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

*Acres of potentially suitable quino habitat

The surveys were conducted in accordance with the current USFWS *Quino Checkerspot Butterfly Survey Protocol Information* (USFWS 2002). All potentially suitable habitat areas on-site were mapped during the pre-survey, habitat site assessment. The first protocol survey was initiated at the start of the quino flight season, as determined by guidance from USFWS monitored reference sites (USFWS 2007). Protocol surveys were conducted at approximate weekly intervals for a total of 6 consecutive weeks, beginning on March 29, 2007 and lasting until May 3, 2007. Quino survey dates varied according to weather and scheduling conditions, and individual permitted biologists used professional judgment to comply with USFWS quino protocol recommendations as closely as possible. Biologists slowly walked all pre-determined butterfly survey areas, carefully followed the movements of butterflies, and periodically stopped within areas containing a high potential for quino use. Actual survey routes varied slightly, but generally crisscrossed the project site within potential quino habitat. A list of detected nectar resources and butterfly species was recorded in a field notebook.

Data collected from the surveys were digitized into ArcView Geographical Information System (GIS) Version 3.2a.

The scientific nomenclature used in this report is noted according to the following references: vegetation, Holland (1986) and Oberbauer (2005); flora, Hickman (1993), and Rebman and Simpson (2006); and butterflies, Opler and Wright (1999 and 2006).

RESULTS AND DISCUSSION

VEGETATION COMMUNITIES

Based on the initial habitat suitability assessment, the following on-site vegetation communities were determined to have potential as quino habitat: Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, non-native grassland, non-native vegetation, disturbed habitat, and rock outcrops. On-site areas excluded from the surveys were limited to: orchard and urban/developed. Each of these communities is briefly described below.

Diegan Coastal Sage Scrub

Moderate to high quality Diegan coastal sage scrub occurs within the majority of the northern portion of the project site. This vegetation community is dominated by California sagebrush (*Artemisia californica*) and San Diego County viguiera (*Viguiera laciniata*).

Disturbed Diegan Coastal Sage Scrub

The Diegan coastal sage scrub that occurs in the most northwestern portion of the site and along the eastern boundary of the property had been previously mowed. These areas consist of sparsely distributed California sagebrush, interior flat-top buckwheat (*Eriogonum fasciculatum* var. *foliolosum*), and San Diego County viguiera. Generally, non-native grasses and mustards dominated the open, disturbed areas between the Diegan coastal sage scrub species.

Non-native Grassland

Non-native grassland occurs within the majority of the southern portion of the project site. Dominant species include slender wild oat (*Avena barbata*), red brome (*Bromus madritensis*), and black mustard (*Brassica nigra*).

Non-native Vegetation

A small area within the southern portion of the project site includes non-native vegetation. This vegetation community includes tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), black mustard, blue elderberry (*Sambucus mexicana*), and Brazilian pepper tree (*Schinus terebinthifolius*).

Disturbed Habitat

Several areas of the project site consist of disturbed habitat, areas devoid of vegetation and consisting of compact soils. Most of these areas are linear and presumably were previously used as dirt roads or pathways. Other areas of disturbed habitat include areas in proximity to and surrounding the existing residence within the northeastern portion of the site.

Rock Outcrop

Numerous rock outcrops of varying size are located generally throughout the Diegan coastal sage scrub and disturbed Diegan coastal sage scrub habitats onsite.

Orchard

A small mission olive (*Olea europea*) orchard is located directly south of the existing residence, and a larger sized citrus orchard is located directly west of the existing residence.

Urban/Developed

An existing single-family residence and a few animal enclosures (*e.g.*, doves, goats) are located in the most northeastern portion of the project site. In addition, the southern boundary of the property consists of a gravel road shoulder along Dehesa Road.

PROTOCOL SURVEYS

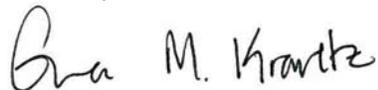
No quino checkerspot butterflies were detected on the project site during the protocol surveys. A site assessment map showing quino survey areas and excluded areas is provided as Figure 2. Copies of the field notes from the permitted biologist(s) who conducted the protocol surveys are provided in Appendix 1; a list of the vegetation communities, and potential quino nectar resources noted within the recommended butterfly survey areas is provided as Appendix 2; and a list of the butterflies observed during the protocol surveys is provided as Appendix 3.

CONCLUSIONS

Pursuant to the reporting requirements contained within M&A's federal Endangered Species Act, Section 10(a)(1)(A) permit #797999-6, we have included this Conclusions section to address our recommendations for recovery of the species. I have no recommendations at this time.

If you have any questions concerning this report, please do not hesitate to contact me at (858) 560-5465 or gkrantz@merkelinc.com.

Sincerely,

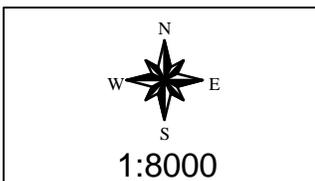
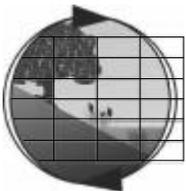
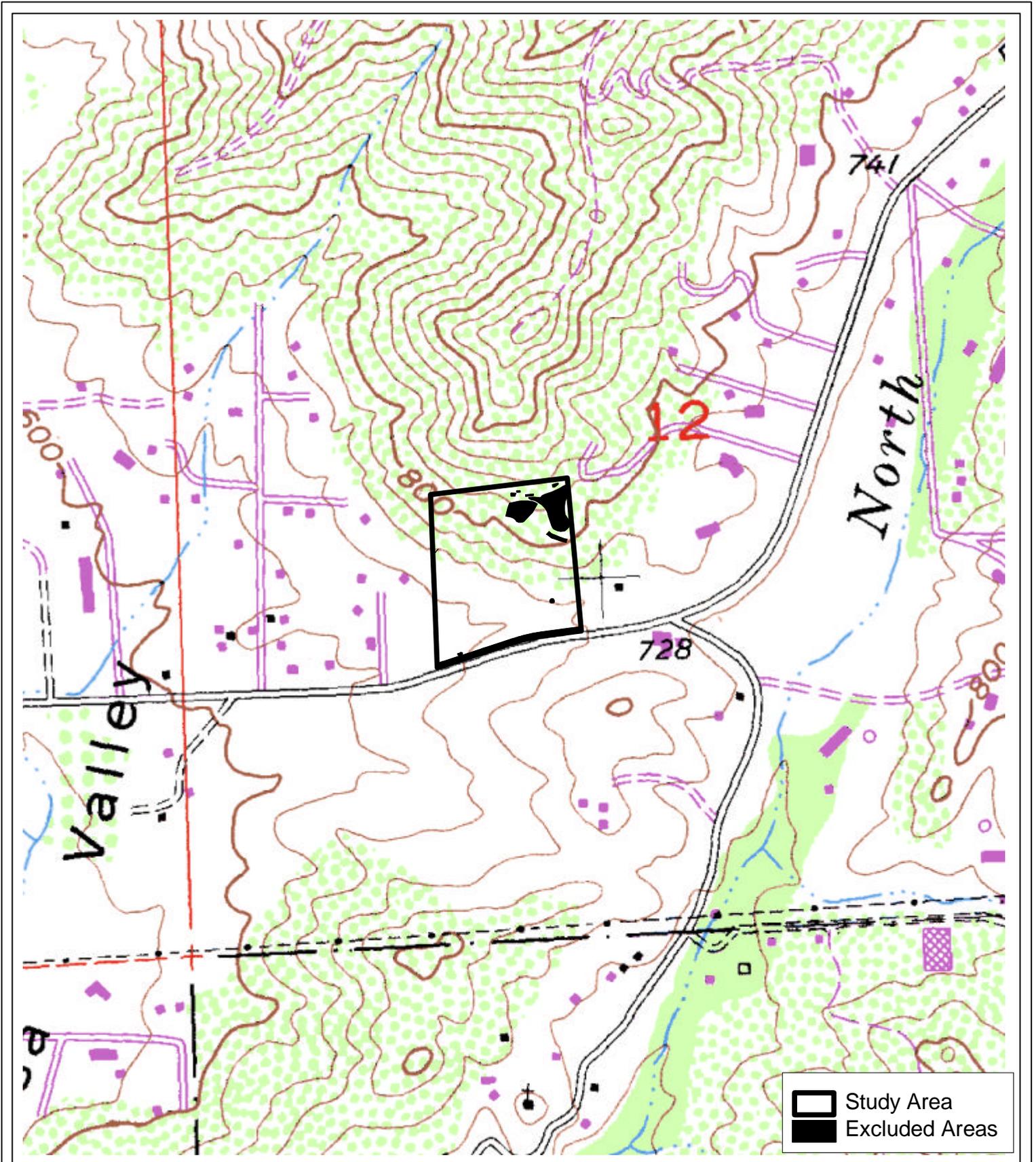


Gina M. Krantz
Associate Biologist/Project Manager



Keith W. Merkel
Principal Consultant

cc: Mr. Sam Shorees, 5550 Dehesa Road, El Cajon, CA 92019



**Quino Checkerspot Butterfly
Site Assessment**
5550 Dehesa Road

Figure 2

I hereby certify that the statements furnished herein and in the attached exhibits present the data and information as required pursuant to Recovery Permit TE-797999-6, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

1) Fieldwork Performed By:

Melissa A. Booker

Melissa A. Booker, Senior Biologist
10(a) Permit Number 797999-6

2) Fieldwork Performed By:

Kyle L. Ince

Kyle L. Ince, Senior Biologist
10(a) Permit Number 797999-6

3) Fieldwork Performed By:

Stephen R. Rink

Stephen R. Rink, Senior Biologist
10(a) Permit Number 797999-6

LITERATURE CITED

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- _____. 2007. 2007 SEASON Quino Checkerspot Butterfly (*Euphydryas editha quino*) Carlsbad Fish and Wildlife Office Reference Site Information [Internet]. Available from: http://www.fws.gov/carlsbad/Rules/QuinoDocuments/Quino_htms/2007%20Quino%20monitoring%20info.htm

APPENDIX 1. FIELD NOTES FOR PROTOCOL QUINO SURVEYS

Dehesa OCB #1

March 29, 2007 07015-02

1530-1645

> key 0% cur-wind - S-8 mph
0% 2BS - some

T = 77°F - 75°F

Butterflies

Potential

Nectaring

Plants

Fincaal Duskywing^{-H}

Microvel sp

Common White⁻¹

radich

Microvel's

medium sp.

Phacelia pamsii

Sisymbrium sp

Euphorbia^{albo-}marginata

Cryptantha sp.

Cupis truncata

Cattlesnake spurge

Fiddleneck

decweed

blue d. tick

wild hyacinth

Dehesa QCB #2

April 6, 2007

1145 - 1315
sky - 50% 30% wind

start end / start end
1 BS 2 BS T 70 F 75 F
1-3 mph 3-9 mph
Butterflies

Flowering/
Nectar Plants
not previously
listed

W. Coast Lady - IIII

Chia
Caterpillar Phacelia
Smooth cat's ear
Wine breaker
Cupina triscata

Funeral
Dusky wing - IIII
Beth's mm -
Sara OT - III
Common White - II

Cat poppy, ^{Camissonia} ~~robusta~~
All previously listed nectar
sp. in flowering. lots
of Phacelia parryi

Dehesa ACB #3

April 10, 2007

1030 - 1155

start Sky - 0% - wind - 1-3 mph T = 74°F
end 0% gusts to BS2 5 mph / BS2 74°F

BS1
Butterflies
NNG

Nectar Resources /
Flowering Plants -

same as wk #2

+ *Sonchus* sp.

Vigna lacinata s.s.

Eriogonum

Calystegia macro.

Pinnacled

Wild Carrot

Prickly lettuce

Carrismania cal.

Linaria canadensis

Lots of pollinators,
bees, bee-fly insects,
etc.

Unid. white
Fun. Dusky
wing - H1
Common white.
||
Ben's mm-1
Marine Blue-1
Painted lady,
NNG

4/17/07

SSC Debra's Road

R. L. S. 1115 - 1125

Spina Survey #4

Winds - Beaufort 1
~ 6-10

Skies Clear

0 cloud cover

White

Western Kingbird

American goldfinch

Cephalus sp.

In-flower

Viguiera tinctoria

Hirshfeldia incana

Mimulus lewisii

Dichostema pul

Apocynum angustifolium

Cryptantha int

Lupinus truncatus

Sectyonia ant

Chamaecrista glabra

Phacelia crenata

~~Bretania~~ 25

Calystegia monticola

Sabinus dan Lucas

West Coast Calif.

Chamaecrista verticillata

Camissonia Calif.

Salvia columbiana

Amsinckia Ind.

Chorizanthe Humboldtiana Humboldt

Dehera Quino #5 4-25-07

Start

Stop 0915, 0%cc, wind: 0 mph, ~72°F
1130, 0%cc, wind 8-10 mph, 75°F

Avians

Reps

B. flies

CATs

lego

noti

snhu

Saph

Amcr

CBRA

RtHA

ReSp

O.T. whiptail

cab. white

R. boa

on hillside among rocks (2) / CSS Center of property

}

Dates: Oct #6

May 3, 2007

17¹⁵ - 18¹⁵

sky - 35% wind - 1 BS T = 74°F
80% 3 BS 63°F

Butterflies

und. blue. Cal. Pieris + 11,
Behr's metal mark - 1

Nectar resources

lots more visited in bloom
now

elderberry blooming - tree
tobacco

wild radish, nigella, marigold,
erogon, proserpinqua, parry, lotos, scg,
blackhead, poplar, flint, rattle, water-pipe
(lower garden also played roles)

snap. beans, turkey ginger, lupine
b. water, caterpillar phase, many
glory, golden yarrow

**APPENDIX 2. LIST OF VEGETATION COMMUNITIES, AND
POTENTIAL QUINO NECTAR RESOURCES
WITHIN RECOMMENDED BUTTERFLY SURVEY AREAS**

Habitat Types:

- C = Diegan Coastal Sage Scrub
- D = Disturbed Coastal Sage Scrub
- G = Non-native Grassland
- N = Non-native Vegetation
- H = Disturbed Habitat
- O = Orchard
- U = Urban/Developed

* = Denotes non-native flora species.

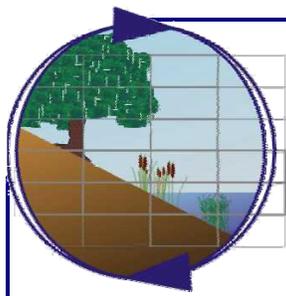
Scientific Name	Common Name	Habitat
Apiaceae - Carrot Family		
<i>Apiastrum angustifolium</i> Nutt.	mock parsley	D,G
<i>Daucus pusillus</i> Michaux	rattlesnake weed	C,D
Asteraceae - Sunflower Family		
* <i>Chamomilla suaveolens</i> (Pursh.) Ryd.	pineapple weed	G,H
<i>Eriophyllum confertiflorum</i> (DC.) A. Gray var. <i>confertiflorum</i>	long-stem golden-yarrow	C,D
* <i>Hypochoeris glabra</i> L.	smooth cat's-ear	H
* <i>Sonchus oleraceus</i> L.	common sow thistle	G,H
<i>Viguiera laciniata</i> Gray	San Diego County viguiera	C,D
Boraginaceae - Borage Family		
<i>Amsinckia menziesii</i> (Lehm.) Nelson & J. F. Macbr. var. <i>intermedia</i> (Fischer & C. Meyer) Ganders	rancher's fiddleneck	C
<i>Cryptantha intermedia</i> (Gray) Greene	nievitas, cryptantha	C,D
Brassicaceae - Mustard Family		
* <i>Brassica nigra</i> (L.) Koch	black mustard	D,G
* <i>Hirschfeldia incana</i> (L.) Lagr.-Fossat	short-pod mustard	D,G
* <i>Raphanus sativus</i> L.	radish	G
* <i>Sisymbrium orientale</i> L.	Hare's ear cabbage	D,G
Caprifoliaceae - Honeysuckle Family		
<i>Sambucus mexicana</i> DC.	blue elderberry	N
Convolvulaceae - Morning-Glory Family		
<i>Calystegia macrostegia</i> (Greene) Brumm. ssp. <i>tenuifolia</i> (Abrams) Brumm.	narrow-leaf morning-glory	N
Fabaceae - Pea Family		
<i>Lotus purshianus</i> (Benth.) Clements & E. G. Clements var. <i>purshianus</i>	Spanish-clover	G
<i>Lotus scoparius</i> (Nutt.) Otley var. <i>scoparius</i>	coastal deerweed	C
<i>Lupinus bicolor</i> Lindley	miniature lupine	D
<i>Lupinus truncatus</i> Hook & Arn.	collar lupine	D,G
Geraniaceae - Geranium Family		
* <i>Erodium cicutarium</i> (L.) L'Hér. Ex Aiton	red-stem filaree	D,H
* <i>Erodium moschatum</i> (L.) L'Hér.	white-stem filaree	D,H
Hydrophyllaceae - Waterleaf Family		
<i>Phacelia cicutaria</i> Greene var. <i>hispida</i> Gray	caterpillar phacelia	C,D
<i>Phacelia parryi</i> Torr.	Parry's phacelia	C,D
Lamiaceae - Mint Family		
<i>Salvia columbariae</i> Benth.	chia	C

Nyctaginaceae - Four-O'Clock Family		
<i>Mirabilis californica</i> A. Gray	California wishbone plant	C,D
Onagraceae - Evening-Primrose Family		
<i>Camissonia californica</i> (Torrey & A. Gray) Raven	false-mustard	D
<i>Camissonia intermedia</i> Raven.	intermediate sun cup	D
Papaveraceae - Poppy Family		
<i>Eschscholzia californica</i> Cham.	California poppy	C
Plantaginaceae - Plantain Family		
<i>Linaria canadensis</i> (L.)Dum.Cours.	large blue toadflax	D
Polygonaceae - Buckwheat Family		
<i>Eriogonum fasciculatum</i> Benth. var. <i>foliolosum</i> (Nutt.)S. Stokes	interior flat-top buckwheat	C,D
Themidaceae – Brodiaea Family		
<i>Dichelostemma capitatum</i> Alph.Wood ssp. <i>capitatum</i>	blue dicks	C

APPENDIX 3. LIST OF BUTTERFLIES OBSERVED DURING PROTOCOL SURVEYS

Common Name	Scientific Name	Survey Observed: 1 2 3 4 5
Pieridae (Whites and Sulfurs)		
checkered (common) white	<i>Pontia protodice</i>	1,2,3,4
cabbage white	<i>Pieris rapae</i>	5
Pacific Sara orangetip	<i>Anthocharis sara sara</i>	2
Lycaenidae (Gossamer-wing Butterflies)		
marine blue	<i>Leptotes marina</i>	3
Riodinidae (Metalmarks)		
Behr's metalmark	<i>Apodemia mormo virgulti</i>	2,3,6
Nymphalidae (Brush-footed Butterflies)		
painted lady	<i>Vanessa cardui</i>	3
west coast lady	<i>Vanessa anabella</i>	2,4
common California ringlet	<i>Coenonympha californica californica</i>	6
Hesperiidae (Skippers)		
funereal duskywing	<i>Erynnis funeralis</i>	1,2

**APPENDIX 7. USFWS 45-DAY LETTER REPORT OF
PROTOCOL COASTAL CALIFORNIA GNATCATCHER SURVEYS AND FIELD NOTES**



Merkel & Associates, Inc.

5434 Ruffin Road, San Diego, CA 92123

Tel: 858/560-5465 • Fax: 858/560-7779

e-mail: associates@merkelinc.com

June 14, 2007
M&A #07-015-02

Ms. Sandra Marquez
Recovery Permit Coordinator
U.S. Fish and Wildlife Service – Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road
Carlsbad, CA 92011

Re: 45-day Letter Report of Coastal California Gnatcatcher Protocol Surveys for the SGS Properties, 5550 Dehesa Road Project, Located in an Unincorporated Portion of El Cajon, San Diego County

Dear Ms. Marquez:

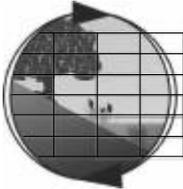
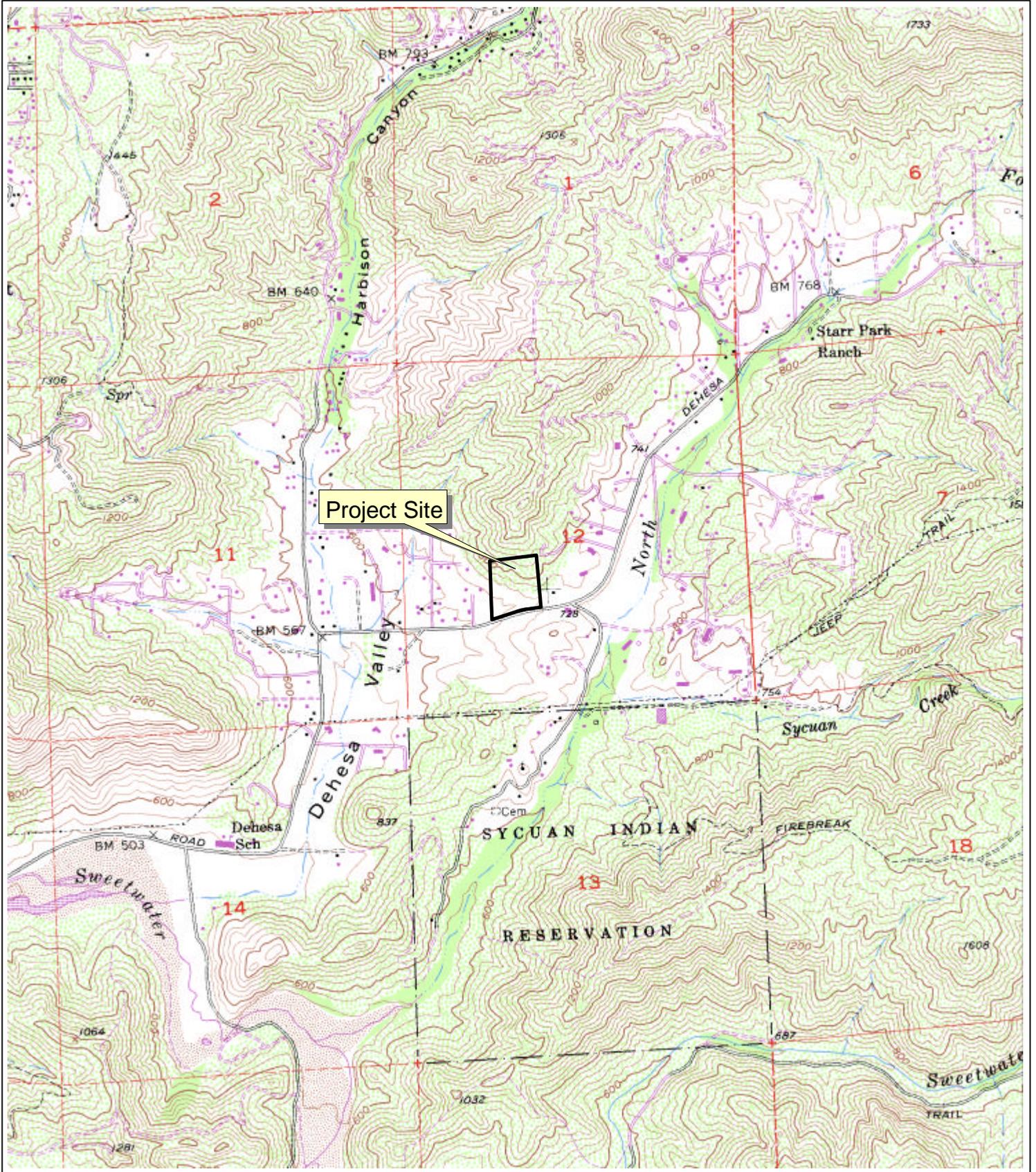
SUMMARY

Merkel & Associates, Inc. (M&A) conducted 3 protocol surveys for the federally-listed, threatened coastal California gnatcatcher (*Polioptila californica californica*) on the 5550 Dehesa Road project site (Assessors Parcel Number 513-073-14), as authorized under M&A's federal Endangered Species Act, Section 10(a)(1)(A) permit #797999-6 and California Department of Fish and Game (CDFG) Memorandum of Understanding (MOU). These surveys were conducted in accordance with the current U.S. Fish and Wildlife Service's *Coastal California Gnatcatcher Presence/Absence Survey Protocol* (USFWS 1997). The project site contains 6.94 acres of potential gnatcatcher habitat. No coastal California gnatcatchers were detected on the project site during the protocol surveys. This letter report has been prepared and submitted to the client, USFWS, and CDFG in accordance with the requirements of M&A's 10a permit and MOU.

INTRODUCTION

Merkel & Associates, Inc. (M&A) conducted protocol surveys for the federally-listed, threatened, coastal California gnatcatcher (*Polioptila californica californica*) on the 5550 Dehesa Road project site (Assessors Parcel Number 513-073-14). The purpose of these surveys was to determine the presence or absence of the coastal California gnatcatcher on the project site.

The approximate 13-acre project site is located within: Section 12, Township 16 South, Range 1 East, of the U.S. Geological Survey (USGS) Alpine, California Quadrangle (Figure 1).



N
W E
S
1:24000

Project Vicinity Map
5550 Dehesa Road
Source: USGS 7.5' Alpine, CA Quadrangle

Figure 1

METHODS

M&A permitted biologists conducted 3 protocol surveys for the coastal California gnatcatcher in April/May of 2007, as authorized under M&A’s federal Endangered Species Act, Section 10(a)(1)(A) permit #797999-6 (Table 1).

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

Survey #	Dates	Time	Conditions (start-end)	Permitted Biologist(s)	Authorized Assistant(s)	*Acres/Day	Taped Vocalizations Playback Frequency
1	2007 April 19	0848-1045	Wthr: 0%-0% cc Wind: 0-2 BS Temp.: 62°-72° F	AKG	none	6.94	1 per 15 minutes
2	2007 April 27	0800-0950	Wthr: 0%-0% cc Wind: 0-1 BS Temp.: 65°-70° F	ATG	none	6.94	1 per 10 minutes
3	2007 May 4	0700-0830	Wthr: 40%-60% cc Wind: 1-1 BS Temp.: 56°-65° F	ATG	none	6.94	1 per 10 minutes

cc=cloud cover; BS=Beaufort Scale; F = Fahrenheit; AKG = Amanda K. Gonzales, ATG = Antonette T. Gutierrez, *Acres of potentially suitable gnatcatcher habitat

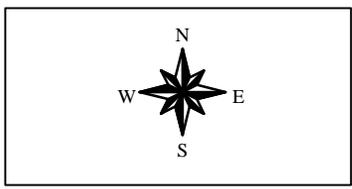
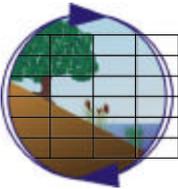
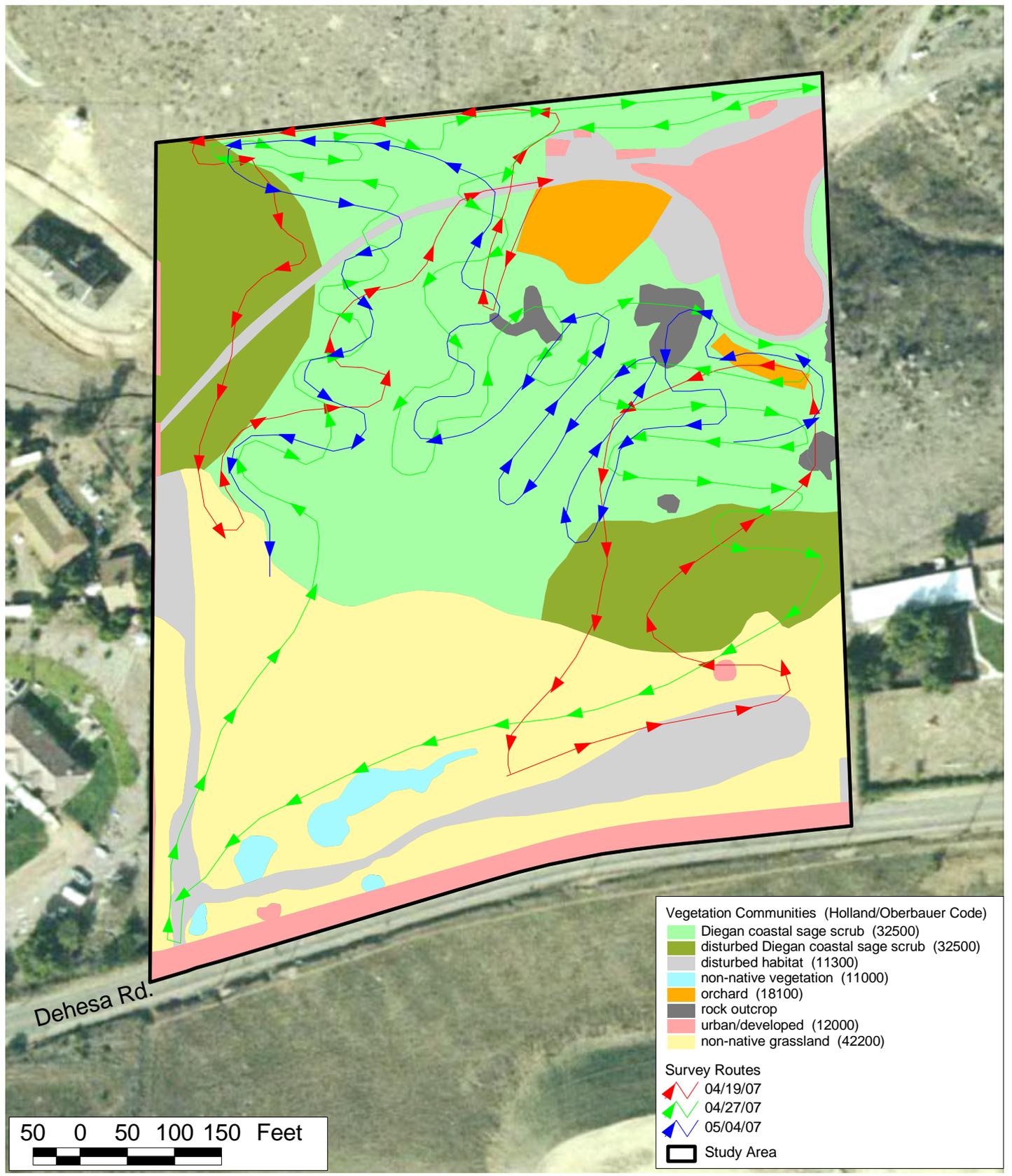
The surveys were conducted in accordance with the current U.S. Fish and Wildlife Service’s (USFWS) *Coastal California Gnatcatcher Presence/Absence Survey Protocol* (USFWS 1997). All on-site vegetation communities were mapped during the previously conducted general biological survey, and survey routes were slowly walked in appropriate gnatcatcher habitat. Taped recordings of gnatcatcher vocalizations, as well as “pishing”, were used to elicit initial vocal responses, and an approximate 5 to 10 minute time interval was allowed for a response, particularly from advantageous viewpoints. A list of detected avian species was recorded in a field notebook.

Data collected from the surveys were digitized into ArcView Geographical Information System (GIS) Version 3.2a.

The scientific nomenclature used in this report is noted according to the following references: vegetation, Holland (1986) and Oberbauer (2005); flora, Hickman (1993), and Rebman and Simpson (2006); and birds, American Ornithologists’ Union (1998 and 2006).

RESULTS AND DISCUSSION

Figure 2 shows the vegetation communities present on the project site, as well as the survey routes followed while conducting the protocol gnatcatcher surveys.



**Coastal California Gnatcatcher
Survey Routes**
5550 Dehesa Road

Figure 2

VEGETATION COMMUNITIES

Diegan Coastal Sage Scrub

Moderate to high quality Diegan coastal sage scrub occurs within the majority of the northern portion of the project site. This vegetation community is dominated by California sagebrush (*Artemisia californica*) and San Diego County viguiera (*Viguiera laciniata*).

Disturbed Diegan Coastal Sage Scrub

The Diegan coastal sage scrub that occurs in the most northwestern portion of the site and along the eastern boundary of the property had been previously mowed. These areas consist of sparsely distributed California sagebrush, interior flat-top buckwheat (*Eriogonum fasciculatum* var. *foliolosum*), and San Diego County viguiera. Generally, non-native grasses and mustards dominated the open, disturbed areas between the Diegan coastal sage scrub species.

Non-native Grassland

Non-native grassland occurs within the majority of the southern portion of the project site. Dominant species include slender wild oat (*Avena barbata*), red brome (*Bromus madritensis*), and black mustard (*Brassica nigra*).

Non-native Vegetation

A small area within the southern portion of the project site includes non-native vegetation. This vegetation community includes tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), black mustard, blue elderberry (*Sambucus mexicana*), and Brazilian pepper tree (*Schinus terebinthifolius*).

Disturbed Habitat

Several areas of the project site consist of disturbed habitat, areas devoid of vegetation and consisting of compact soils. Most of these areas are linear and presumably were previously used as dirt roads or pathways. Other areas of disturbed habitat include areas in proximity to and surrounding the existing residence within the northeastern portion of the site.

Rock Outcrop

Numerous rock outcrops of varying size are located generally throughout the Diegan coastal sage scrub and disturbed Diegan coastal sage scrub habitats onsite.

Orchard

A small mission olive (*Olea europea*) orchard is located directly south of the existing residence, and a larger sized citrus orchard is located directly west of the existing residence.

Urban/Developed

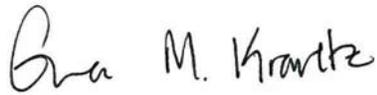
An existing single-family residence and a few animal enclosures (e.g., doves, goats) are located in the most northeastern portion of the project site. In addition, the southern boundary of the property consists of a gravel road shoulder along Dehesa Road.

PROTOCOL SURVEYS

No coastal California gnatcatchers were detected on the project site during the protocol surveys.

If you have any questions concerning this report, please do not hesitate to contact me at (858) 560-5465 or gkrantz@merkelinc.com.

Sincerely,



Gina M. Krantz
Associate Biologist/Project Manager



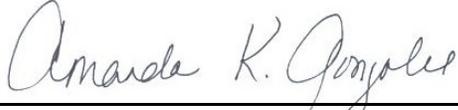
Keith W. Merkel
Principal Consultant

cc: Dr. John Gustafson, Habitat Conservation Planning Branch, California Department of Fish and Game, 1416 Ninth Street, 12th Floor, Sacramento, CA 95814

Mr. Sam Shorees, 5550 Dehesa Road, El Cajon, CA 92019

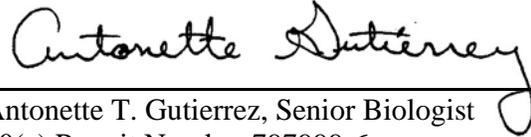
I hereby certify that the statements furnished herein and in the attached exhibits present the data and information as required pursuant to Recovery Permit TE-797999-6, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

1) Fieldwork Performed By:



Amanda K. Gonzales, Associate Biologist
10(a) Permit Number 797999-6

2) Fieldwork Performed By:



Antonette T. Gutierrez, Senior Biologist
10(a) Permit Number 797999-6

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APPENDIX 8. OCCURRENCE POTENTIAL OF SPECIAL STATUS SPECIES ON THE PROJECT SITE

<i>Scientific Name</i> Common Name ¹	Sensitivity Codes and Status ²	Habitat Preferences/ Requirements ³	Verified On-Site	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
PLANTS					
<i>Acanthomintha ilicifolia</i> thornmint	ESA: FT CESA: SE CNPS List: 1B CNDDDB: SP MSCP: NE, CS MHCP: NE, CS Cnty of SD List: A	Native, annual herb that prefers grassy openings in chaparral or sage scrub on gabbroic substrate with friable or broken clay soils, including vernal pools; blooming period Apr-Jun.	No	Low Potential	Lack of preferred gabbroic substrate and clay soils; not detected during focused rare plants survey conducted in May 2007.
<i>Artemisia palmeri</i> Palmer's sagewort	CNPS List: 4 CNDDDB: SP Cnty of SD List: D	Native, deciduous, shrub most often found along perennial creeks and drainages near the coast; grows within a shaded understory beneath riparian woodland; inland it may occur in mesic chaparral conditions; blooming period May-Sep.	No	Low Potential	Lack of potentially suitable habitat; not detected during focused rare plants survey conducted in May 2007.
<i>Astragalus deanei</i> Dean's locoweed/ milk-vetch	CNPS List: 1B CNDDDB: SP Cnty of SD List: A	Very rare, native/CA endemic, perennial herb that occurs in sage scrub, chaparral, riparian forest, and sandy washes, particularly along Sweetwater, Otay, and Tijuana Rivers and tributaries in San Diego County; blooming period Feb-May.	No	Low Potential	Not detected during focused rare plants survey conducted in May 2007.
<i>Brodiaea orcuttii</i> Orcutt's brodiaea	CNPS List: 1B CNDDDB: SP MSCP: CS Cnty of SD List: A	Native, perennial, bulbiferous/corm sprouting herb that prefers vernal moist grasslands, mima mound topography, and the periphery of vernal pools; will occasionally grow on streamside embankments; has also been found in mesic grasslands and openings within chaparral; blooming period May-Jul.	No	Low Potential	Potentially suitable habitat limited on the project site; not detected during focused rare plants survey conducted in May 2007.

<i>Scientific Name</i> Common Name ¹	Sensitivity Codes and Status ²	Habitat Preferences/ Requirements ³	Verified On-Site	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Caulanthus stenocarpus</i> slender-pod jewel flower	Delisted MSCP: CS	Native plant that is sometimes found following fire on chaparral hillsides; blooming period Mar-Jun.	No	Low Potential	Lack of potentially suitable habitat; not detected during focused rare plants survey conducted in May 2007.
<i>Chorizanthe procumbens</i> prostrate spineflower	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; blooming period Apr-Jun	No	Low Potential	Lack of potentially suitable habitat; not detected during focused rare plants survey conducted in May 2007.
<i>Dichondra occidentalis</i> western dichondra/ponyfoot	CNPS List: 4 CNDDDB: SP Cnty of SD List: D	Native, small, cryptic perennial, rhizomatous herb that occurs in southern mixed chaparral, chamise chaparral, 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; blooming period (Jan)Mar-Jul.	No	Low Potential	Not detected during focused rare plants survey conducted in May 2007.
<i>Dudleya variegata</i> variegated dudleya	CNPS List: 1B CNDDDB: SP MSCP: NE, CS MHCP: NE Cnty of SD List: A	Native, small, corm-like sprouting, succulent, perennial herb that occurs in openings in sage scrub and chaparral, isolated rocky substrates in open grasslands, as well as in vernal pools and mima mound topography; usually grows in small areas devoid of shrub cover, even though chamise, scrub oak, or sage scrub elements may occur nearby; blooming May-Jun.	No	Low Potential	Distinctive species that should have been detected if present; not detected during focused rare plants survey conducted in May 2007.
<i>Ericameria palmeri</i> var. <i>palmeri</i> Palmer's goldenbush (= <i>ericameria</i>)	CNPS List: 2 CNDDDB: SP MSCP: NE, CS Cnty of SD List: B	Native, evergreen, shrub that strongly prefers seasonally wet/moist locales, along coastal drainages, in mesic chaparral sites or rarely in sage scrub, and occasionally occurs as a hillside element (usually at higher elevations, inland on north-facing slopes); blooming period (Jul)Sep-Nov.	No	Low Potential	Lack of potentially suitable habitat.

<i>Scientific Name</i> Common Name ¹	Sensitivity Codes and Status ²	Habitat Preferences/ Requirements ³	Verified On-Site	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Harpagonella palmeri</i> Palmer's grappling hook	CNPS List: 4 CNDDDB: SP Cnty of SD List: D	Native, inconspicuous annual, herb that typically occurs on clay vertisols with open grassy slopes in open sage scrub or chaparral; blooming period Mar-May.	No	Low Potential	Lack of preferred clay soils; not detected during focused rare plants survey conducted in May 2007.
<i>Muilla clevelandii</i> San Diego goldenstar	CNPS List: 1B CNDDDB: SP MSCP: CS MHCP: NE Cnty of SD List: A	Native, perennial, corm/bulbiferous herb that prefers valley grasslands, particularly near mima mound topography or in the vicinity of vernal pools, in clay soils with good shrink/swell potential; does not typically grow in the shade of woody perennials, but rather in somewhat open locales; blooming period Apr-May.	No	Low Potential	Lack of preferred clay soils and potentially suitable habitat; not detected during focused rare plants survey conducted in May 2007.
<i>Ophioglossum californicum</i> California adder's-tongue fern	CNPS List: 4 CNDDDB: SP Cnty of SD 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; blooming period (Dec)Jan-Jun.	No	Low Potential	Lack of potentially suitable habitat; not detected during focused rare plants survey conducted in May 2007.
<i>Pentachaeta aurea</i> golden-rayed pentachaeta	CNPS List: 4 CNDDDB: SP Cnty of SD List: D	Native, annual herb that occurs in mesic montane grasslands and sage scrub; blooming period Mar-Jul.	No	Low Potential	Not detected during focused rare plants survey conducted in May 2007.
<i>Salvia munzii</i> Munz's sage	CNPS List: 2 CNDDDB: SP Cnty of SD List: B	Native, evergreen, shrub that occurs in chaparral and sage scrub, and when found, is often a dominant plant in the area; blooming period Feb-Apr.	No	Low Potential	Not detected during focused rare plants survey conducted in May 2007.

Scientific Name Common Name ¹	Sensitivity Codes and Status ²	Habitat Preferences/ Requirements ³	Verified On-Site	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Viguiera laciniata</i> San Diego sunflower	CNPS List: 4 CNDDDB: SP Cnty of SD List: D	Native, annual shrub that typically prefers arid sage scrub; generally the shrub cover is more open than at mesic, coastal locales supporting sage scrub; blooming period Feb-Jun.	Yes; Directly observed throughout the sage scrub habitat.	Present	
INVERTEBRATES					
<i>Danaus plexippus</i> monarch butterfly	CNDDDB ⁴ : SA Cnty of SD Group: 2	Utilizes open habitats including fields, meadows, weedy areas, marshes, and roadsides; caterpillar host plants include milkweeds (<i>Asclepius</i> sp.); adults nectar from a variety of flowers and migrate to wintering sites in central Mexico and along the California coast from Aug-Oct.	No	Low Potential	No caterpillar host plants occur onsite.
<i>Euphydryas editha quino</i> quino checkerspot butterfly	ESA: FE CNDDDB: SA MSCP: NE Cnty of SD Group: 1	Utilizes coastal habitats of sage scrub and chaparral; more inland, can be found in open meadows adjacent to sage scrub, chaparral and oak woodland, as well as juniper woodland and semi-desert scrub; habitats must have open areas with low growing and sparse vegetation; other suitable habitat conditions include dirt trails/roads, especially along hilltops, and clay soils and cryptogammic crusts, which favor host plant growth; primary caterpillar host plants include <i>Plantago erecta</i> at lower elevations and <i>P. patagonica</i> and <i>Antirrhinum coulterianum</i> at higher elevations; additional host plants may include <i>Cordylanthus rigidus</i> and <i>Castilleja exserta</i> ; adults nectar on low growing annuals; adult flight period typically Mar-Apr, depending on winter rainfall and temperatures.	No	Low Potential	Six protocol surveys were conducted during the 2007 season; no adult quino were observed during these surveys. In addition, none of the primary host plants occur within the project study area.

<i>Scientific Name</i> Common Name ¹	Sensitivity Codes and Status ²	Habitat Preferences/ Requirements ³	Verified On-Site	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Lycaena hermes</i> Hermes copper butterfly	CNDDDB: SA Cnty of SD Group: 1	Utilizes mixed woodlands, chaparral, and coastal sage scrub; caterpillar host plant is <i>Rhamnus crocea</i> ; adults nectar on flowers of <i>Eriogonum</i> ; restricted range from San Diego County to Baja California; adult flight period May-Jul.	No	Low Potential	Based on several surveys within the study area, the conspicuous host plant spiny redberry (<i>Rhamnus crocea</i>) was not observed onsite. No suitable habitat occurs onsite or in vicinity. This species is not expected to occur onsite or in vicinity as specified in a M&A letter to the County. The County concurred with this determination in a response letter to M&A, dated May 17, 2007.
AMPHIBIANS					
<i>Spea (=Scaphiopus)</i> <i>hammondii</i> western spadefoot toad	DFG: CSC CNDDDB: SA County Group: 2	Breeding and egg laying occur almost exclusively in shallow, temporary pools formed by heavy winter rains, typically within grassland habitat.	No	Low Potential	No breeding habitat (temporary pools) occur onsite or presumably in the vicinity (similar to site) due to steep slopes and/or lack of suitable soils to hold water in pools.
REPTILES					
<i>Anniella pulchra pulchra</i> silvery legless lizard	DFG: CSC CNDDDB: SA Cnty of SD Group: 2	Shows a preference for areas of leaf litter and loose soil along washes, beach sand dunes, open scrub and woodland, and sandy benches along alluvial fans.	No	Low Potential	Species strongly associated with flat sandy habitats. Site consists of moderate to high gradient slopes.
<i>Aspidoscelis hyperythra beldingi</i> orange-throated whiptail	DFG: CSC CNDDDB: SA MSCP: CS Cnty of SD 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.	Yes; Directly observed onsite.	Present	

Scientific Name Common Name¹	Sensitivity Codes and Status²	Habitat Preferences/ Requirements³	Verified On-Site	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Lichanura trivirgata</i> (= <i>Charina trivirgata roseofusca</i>) (= coastal) rosy boa	CNDDDB: SA Cnty of SD 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.	Yes; Directly observed onsite.	Present	
<i>Coleonyx variegates abbotti</i> San Diego banded gecko	CNDDDB: SA Cnty of SD Group: 1	Primarily nocturnal reptile that prefers areas of rock outcrop within sage scrub and chaparral, and hides in burrows or under surface objects during the day; breeds during Apr and May, and hibernates through the winter, generally from Nov to Feb.	No	Moderate Potential	Abundance of rock outcrops/soils onsite.
<i>Crotalus ruber ruber</i> northern red-diamond rattlesnake	DFG: CSC CNDDDB: SA Cnty of SD Group: 2	Occurs in chaparral, woodland, and arid desert habitats in rocky areas and dense vegetation; active from mid-spring to mid-fall.	No	Moderate Potential	Abundance of rock outcrops/soils onsite.
<i>Diadophis punctatus similis</i> San Diego ringneck snake	CNDDDB: SA Cnty of SD Group: 2	Often encountered during the day under boards and flat rocks in open, moist, relatively rocky areas within chaparral and grassland habitats.	No	Low Potential	Lack of mesic conditions.

<i>Scientific Name</i> Common Name¹	Sensitivity Codes and Status²	Habitat Preferences/ Requirements³	Verified On-Site	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Phrynosoma coronatum blainvillii</i> San Diego horned lizard	DFG: CSC CNDDDB: SA MSCP: CS Cnty of SD 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.	No	Moderate Potential	Sparse scrub habitat, coarse sandy soils and Harvester ants observed onsite.
<i>Salvadora hexalepis virgultea</i> coast patch-nosed snake	DFG: CSC CNDDDB: SA Cnty of SD Group: 2	Diurnal snake that occurs in a variety of habitats including chaparral, desert scrub, washes, sandy flats, and rocky areas.	No	Moderate Potential	Suitable scrub habitat and primary prey (side-blotched lizard and western fence lizard).
BIRDS					
<i>Accipiter cooperii</i> Cooper's hawk	DFG ⁴ : CSC CNDDDB: SA MSCP: CS MHCP: CS Cnty of SD 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.	Yes; Directly observed flying over study area.	Present	Foraging habitat present, but no suitable nesting habitat occurs onsite.
<i>Accipiter striatus</i> sharp-shinned hawk	DFG ⁴ : CSC CNDDDB: SA Cnty of SD Group: 1	Winter resident in San Diego County that prefers 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.	No	Low Potential	No suitable habitat onsite; suitable habitat offsite within Sweetwater River area.
<i>Aimophila ruficeps canescens</i> S. Cal. rufous-crowned sparrow	DFG: CSC CNDDDB: SA MSCP: CS Cnty of SD Group: 1	Yearlong resident that occurs in sparse, mixed chaparral and sage scrub habitats, often on steep, rocky hillsides with grass and forb patches and grassly slopes if rock outcrops are present.	Yes; Directly observed onsite.	Present	

<i>Scientific Name</i> Common Name ¹	Sensitivity Codes and Status ²	Habitat Preferences/ Requirements ³	Verified On-Site	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Ammodramus savannarum</i> grasshopper sparrow	CNDDDB: SA Cnty of SD Group: 1	Summer and breeding resident in foothills and lowlands west of the Cascade-Sierra Nevada crest from Mendocino and Trinity Counties, south to San Diego County; occurs in dense, dry or well-drained grassland, especially native grassland with a mix of grasses and forbs for foraging and nesting; uses scattered shrubs for singing perches, and a thick cover of grasses and forbs is essential for concealment; searches for food on ground and low foliage within relatively dense grasslands, sometimes scratching in litter, and feeds primarily on insects, especially Orthoptera, but also eats other invertebrates and grass and forb seeds; builds nest of grasses and forbs in a slight depression in ground, hidden at base of an overhanging clump of grasses or forbs; breeds early Apr to mid-Jul, with a peak in May-Jun.	No	Low Potential	Low quality habitat onsite; potentially suitable habitat on adjacent properties.
<i>Amphispiza belli belli</i> Bell's sage sparrow	DFG: CSC CNDDDB: SA Cnty of SD Group: 1	Yearlong 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.	No	Low Potential	No suitable habitat onsite.

<i>Scientific Name</i> Common Name ¹	Sensitivity Codes and Status ²	Habitat Preferences/ Requirements ³	Verified On-Site	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Ardea herodias</i> great blue heron	CNDDDB ⁴ : SA Cnty of SD Group: 2	Yearlong resident throughout most of California, except for the deserts; occurs in shallow estuaries and fresh and saline emergent wetlands, and less commonly along riverine and rocky marine shores, in croplands, pastures, and in mountains above foothills; perches and roosts in secluded tall trees, and prefers nesting in secluded groves of tall trees near shallow-water feeding areas; stands motionless, or walks slowly, when searching for prey in shallow water; feeds primarily on fish, but may also eat small rodents, amphibians, snakes, lizards, insects, crustaceans, and occasionally small birds; usually arrives on breeding grounds in Feb.	No	Low Potential	No suitable foraging and /or roosting habitat (trees) occurs onsite.
<i>Aquila chrysaetos</i> golden eagle	DFG ⁴ : CSC, FP CNDDDB: SA MSCP: NE, CS Cnty of SD Group: 1	Yearlong resident throughout California (except the Central Valley) that uses rolling foothills and mountain terrain, wide arid plateaus deeply cut by streams and canyons, open mountain slopes, and cliffs and rock outcrops; seeks cover and nests in cliffs and large trees; hunts primarily by soaring above ground in open terrain and feeds on mostly lagomorphs and rodents, but also takes other mammals, birds, reptiles, and some carrion; breeds from late Jan-Aug, with peak activity from Mar-Jul.	Yes; Directly observed flying over the study area	Present as flyover	Foraging habitat present, but no suitable nesting habitat occurs onsite.
<i>Cathartes aura</i> turkey vulture	Cnty of SD Group: 1	Yearlong resident throughout most of California, west of the Sierra Nevadas, that uses extensive open areas with protective nest and roost sites provided by large trees, snags, thickets, shrubs, and rock outcrops; hunts from the air or by perch, aided by the sense of smell, and feeds primarily on carrion.	Yes; Directly observed flying over the study area.	Present as flyover	Potential foraging and breeding habitat (i.e., rock outcrops) onsite.

<i>Scientific Name</i> Common Name ¹	Sensitivity Codes and Status ²	Habitat Preferences/ Requirements ³	Verified On-Site	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Circus cyaneus</i> northern harrier	DFG ⁴ : CSC CNDDDB: SA MSCP: CS Cnty of SD Group: 1	Yearlong and winter resident in California that uses flat, or hummocky, open areas of tall, dense grasses, moist or dry shrubs, and edges for nesting, cover, and feeding; hunts by making low, quartering flights above open ground, and dives from flight or hover; feeds mostly on voles and other small mammals, birds, frogs, small reptiles, crustaceans, and insects; nests built of a large mound of sticks in wet areas, and a smaller cup of grasses on dry sites; breeds Apr-Sep, with peak activity Jun-Jul.	No	Moderate Potential	Suitable foraging habitat onsite and adjacent properties; no evidence of nesting/breeding within 150 feet of project site.
<i>Elanus leucurus</i> (= <i>caeruleus</i>) white (= black)-shouldered kite	DFG ⁴ : FP CNDDDB: SA Cnty of SD Group: 1	Yearlong resident throughout most of California that frequents open habitats with sparse shrubs and trees, other suitable perches, bare ground, and low or sparse herbaceous cover; builds nests on a stable branch in densely-foliaged shrub or tree, usually well-concealed, approximately 0.4 to 15 m (1.3 to 50 ft) above ground; hunts for prey from a perch and feeds on mostly large insects, but also takes small birds, mammals, amphibians, reptiles, fish, carrion, and various other invertebrates; lays eggs from Mar-May, and young become independent in Jul-Aug.	No	Low Potential	No suitable nesting habitat occurs onsite or adjacent to study area.
<i>Eremophila alpestris</i> <i>actia</i> California horned lark	DFG: CSC CNDDDB: SA Cnty of SD Group: 2	Grasslands, disturbed areas and open habitats with sparse, low vegetation.	No	Moderate Potential	Suitable foraging habitat and breeding habitat, however, multiple onsite surveys did not detect any evidence of nesting onsite or adjacent to property.
<i>Falco mexicanus</i> prairie falcon	DFG ⁴ : CSC CNDDDB: SA Cnty of SD Group: 1	Open grassland, agricultural fields and desert scrub.	No	Low Potential	Most often associated with desert environments, and foothill grasslands, site lacks rocky cliffs for roosting.

<i>Scientific Name</i> Common Name ¹	Sensitivity Codes and Status ²	Habitat Preferences/ Requirements ³	Verified On-Site	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Lanius ludovicianus</i> loggerhead shrike	DFG ⁴ : CSC CNDDDB: SA Cnty of SD Group: 1	Found within grassland or open habitats with bare ground and sparse shrub and/or tree cover for nesting and perching.	No	Moderate Potential	Suitable foraging habitat; only a few potential nesting/perching trees on adjacent properties.
<i>Larus californicus</i> California gull	DFG ⁴ : CSC CNDDDB: SA Cnty of SD Group: 2	Occurs in open ocean, beaches, bays, estuaries, lagoons, as well as garbage dumps, agricultural fields, and freshwater ponds and lakes.	No	Low Potential	No suitable habitat onsite or in the vicinity.
<i>Poliophtila californica</i> California gnatcatcher	ESA: FT DFG: CSC CNDDDB: SA Cnty of SD Group: 1	Yearlong resident in coastal southern California, that occurs in low, dense sage scrub habitat in arid washes, on mesas, and on slopes of coastal hills; <i>Eriogonum fasciculatum</i> var. <i>fasciculatum</i> , <i>Artemisia californica</i> , and patches of <i>Opuntia littoralis</i> are particularly favored; feeds on insects and spiders from foliage of shrubs; nests are weaved from hemp-like fibers, leaves, plant down, and spider silk, in shrubs approximately 0.6-0.9 m (2-3 ft) above ground; peak egg laying in Apr-May, with fledging occurring at 9-10 days.	No	Low Potential	Suitable habitat onsite and vicinity. Three protocol surveys were conducted onsite during the gnatcatcher breeding season; In addition, several other biological surveys were conducted on the site between February and May 2007. No California gnatcatchers were observed or detected within the study area during the any of the surveys.
MAMMALS					
<i>Antrozous pallidus</i> pallid bat	DFG: CSC CNDDDB: SA Cnty of SD Group: 2	Nocturnal bat species that is a yearlong resident throughout California and 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.	No	Low Potential	The deep canyon walls and open sandy terraces along the Sweetwater River, located south of the site, provide suitable habitat for a population which could forage beyond the drainage proper and on the open grassland habitats on site.
<i>Chaetodipus californicus femoralis</i> Dulzura (California) pocket mouse	DFG: CSC CNDDDB: SA Cnty of SD 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.	No	Moderate Potential	Not an uncommon species, suitable habitat occurs on site.

Scientific Name Common Name¹	Sensitivity Codes and Status²	Habitat Preferences/ Requirements³	Verified On-Site	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Chaetodipus fallax fallax</i> northwestern San Diego pocket mouse	DFG: CSC CNDDDB: SA Cnty of SD 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.	No	Moderate Potential	Not an uncommon species, suitable habitat occurs on site.
<i>Corynorhinus townsendii</i> Townsend's western big-eared bat	DFG: CSC CNDDDB: SA Cnty of SD Group: 2	Cave rooster, feeds in forest/woodland habitats or along habitat edges within 15 km of roost site	No	Low Potential	Forages along riparian vegetation.
<i>Eumops perotis</i> western mastiff bat	DFG: CSC CNDDDB: SA Cnty of SD 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.	No	High Potential	Mostly roosts in rocky cliffs, forages on a wide variety of insects and in a variety of habitats, of which several occur on site.
<i>Puma (=Felis) concolor</i> mountain lion	MSCP: CS Cnty of SD Group: 2	Mostly nocturnal and crepuscular large mammal that occurs throughout California and typically requires extensive areas of riparian vegetation and brushy stages of various habitats, with interspersions of irregular terrain, rocky outcrops, and tree/brush edges, where prey, predominantly consisting of mule deer, are present; active yearlong, but has season movement during the fall within a fixed range in response to migrating deer herds (generally Aug to Oct).	No	Low Potential	No evidence of this species found onsite. No suitable habitat onsite. Due to recent fires, vegetation cover and forage plants have been significantly reduced, limiting the activity of deer, the primary prey for mountain lions.
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	DFG: CSC CNDDDB: SA Cnty of SD Group: 2	Diurnal and crepuscular herbivore that occurs in herbaceous and desert-shrub areas and open, early stages of forest and chaparral habitats.	No	Low/ Moderate Potential	Suitable habitat onsite; although majority of site consists of steep slopes.
<i>Macrotus californicus</i> California leaf-nosed bat	DFG: CSC CNDDDB: SA Cnty of SD Group: 2	Roosts in rocky, rugged terrain with mines and caves and forages over nearby flats and washes.	No	Low Potential	Found primarily in desert habitats.

<i>Scientific Name</i> Common Name ¹	Sensitivity Codes and Status ²	Habitat Preferences/ Requirements ³	Verified On-Site	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Myotis yumanensis</i> Yuma myotis	CNDDDB: SA Cnty of SD Group: 2	Utilizes multiple habitats (primarily woodlands and forests) but forages over water.	No	Low Potential	Strongly associated with open water sources, forages close to surface for emerging insects, roosts in crack and crevis-like situations often in man-made structures.
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	DFG: CSC CNDDDB: SA Cnty of SD 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.	No	Low Potential	No evidence of this species, including conspicuous nests, observed onsite.
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	DFG: CSC CNDDDB: SA Cnty of SD Group: 2	Nocturnal species that occurs in woodlands, and desert scrub, riparian, wash, alkali scrub habitats, and prefers rock crevices in cliffs for roosting.	No	Low Potential	No suitable and/or preferred habitat onsite.
<i>Nyctinomops macrotis</i> big free-tailed bat	DFG: CSC CNDDDB: SA Cnty of SD Group: 2	Nocturnal species that prefers rugged, rocky canyons but has been found in urban areas; roosts in buildings, caves, and occasionally holes in trees, and feeds primarily on large moths.	No	Low Potential	Uncommon in southern California.

Scientific Name Common Name¹	Sensitivity Codes and Status²	Habitat Preferences/ Requirements³	Verified On-Site	Potential To Occur On-Site	Factual Basis for Determination of Occurrence Potential
<i>Odocoileus hemionus fuliginata</i> southern mule deer	MSCP: CS Cnty of SD 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.	No	Low Potential	No deer or evidence of deer observed or detected onsite. No preferred habitat occurs onsite.
<i>Onychomys torridus Ramona</i> southern grasshopper mouse	DFG: CSC CNDDDB: SA Cnty of SD Group: 2	Variety of habitats, including grasslands, sage scrub and chaparral, where friable soils occur	No	Low Potential	Suitable conditions seem to occur on site, however populations are highly localized in areas with little disturbance.
<i>Taxidea taxus</i> American badger	DFG: CSC CNDDDB: SA MSCP: CS Cnty of SD 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.	No	Low Potential	Although suitable habitat occurs onsite and a known occurrence is located within 2 miles from study area, no evidence of badger was observed onsite after several surveys. It is presumed that evidence (e.g., scat, tracks) of this species would have been detected over many visits to the site.

Note: The species addressed in this table are from the list provided in the County of San Diego project scoping letter, dated April 27, 2007.

¹*Scientific Nomenclature*: flora, Rebman and Simpson (2006); butterflies, Klein/San Diego Natural History Museum (2002); amphibians and reptiles, Crother et al. (2001 and 2003); birds, American Ornithologists' Union (1998 and 2007); and mammals, Wilson and Reeder (1993).

²*Sensitivity Codes and Status* (AMEC 2003, CDFG 2006 and 2007, County 1997 and 2006, Ogden et al. 1998)

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) Sensitivity Codes: CSC = California special concern species; FP = California fully protected species; SR = State-listed rare

California Native Plant Society (CNPS) Sensitivity 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) Sensitivity Codes: Special Plants (SP)/Special Animals (SA) = 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 Sensitivity 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. 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.

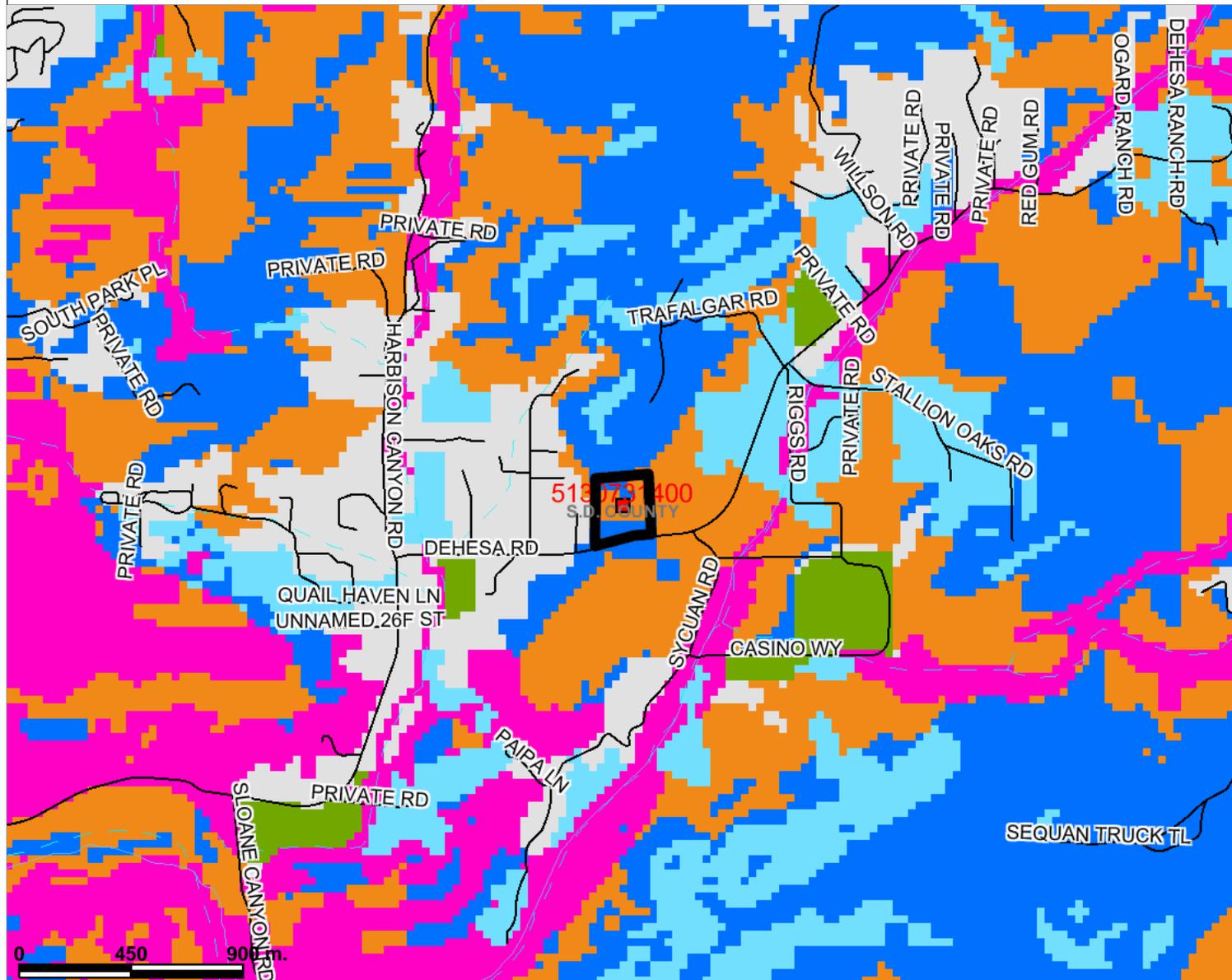
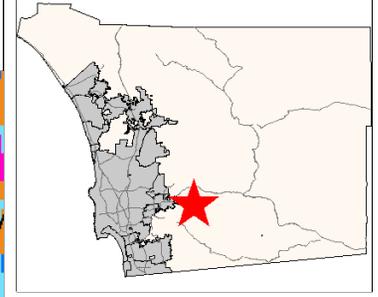
Multiple Species Conservation Program (MSCP) Status: Narrow Endemic = NE; Covered Species = CS.

³References for Habitat Preferences/Requirements: (plants) Reiser 2001 and CNPS 2007; (butterflies) Faulkner and Klein 2004, Opler 2006; (amphibians and reptiles) Stebbins 2003, CDFG 2005; (birds and mammals) CDFG 2005.

⁴Sensitivity codes and status apply to nesting/wintering sites only

APPENDIX 9. HABITAT EVALUATION MAP

TPM21054 Shores Habitat Evaluation



Legend

- Highways
- Freeways
- Streets
- Creeks
- Rivers
- Water Bodies**
- Water Bodies
- Habitat Evaluation Model**
- No Data
- Developed
- Agriculture
- Low
- Med
- High
- Very High
- Incorporated Areas**
- S.D. COUNTY
- Other

Scale: 1:24,879

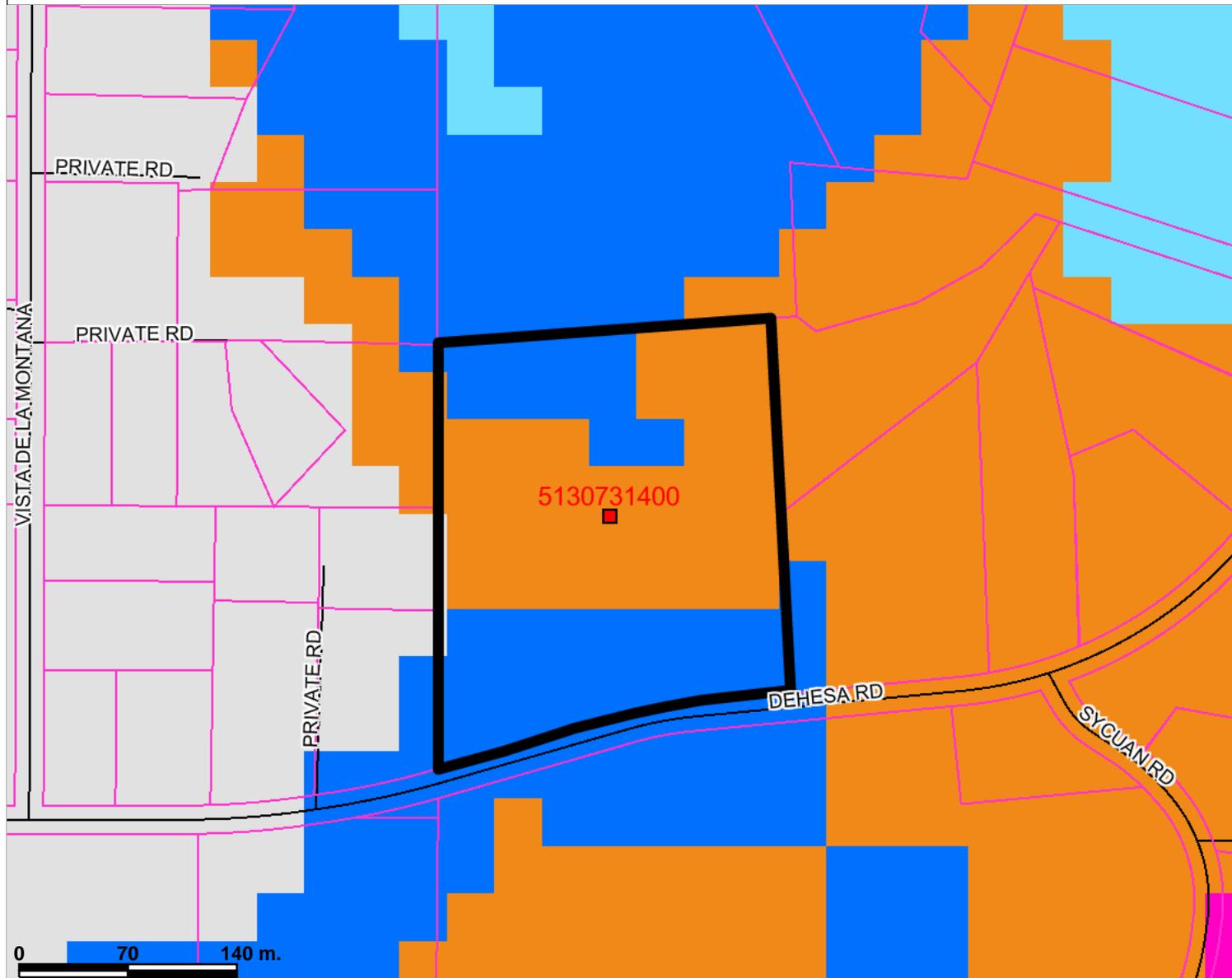
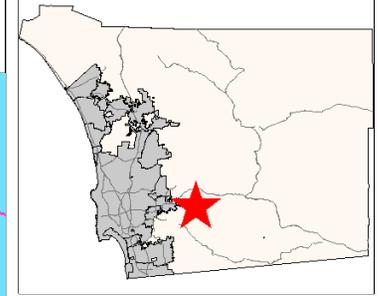


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TPM 21054 MSCP Habitat Evaluation Map



Legend

- Parcels w/out labels
- Highways
- Freeways
- Streets

Habitat Evaluation Model

- No Data
- Developed
- Agriculture
- Low
- Med
- High
- Very High

Scale: 1:3,981



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