EVERETT AND ASSOCIATES
ENVIRONMENTAL CONSULTANTS
ESTABLISHED IN 1975

POST OFFICE BOX 1085
LA JOLLA, CALIFORNIA 92038

(858) 456-2990 TELEPHONE
(760) 765-3113 FACSIMILE

16 January 2014

Mr. Glen Webber
San Diego Freedom Ranch
Post Office Box 157
Campo, CA 91906

BIOLOGICAL RESOURCES AND WETLAND SURVEY LETTER REPORT

Project Name: San Diego Freedom Ranch - Major Use Permit P74-011W - Modification

Prepared for the County of San Diego

Dear Mr. Webber,

I have prepared this letter report at your request and in response to the scoping letters from County staff dated November 12, 2010 May 22, 2012, and November 22, 2013.

The San Diego Freedom Ranch Major Use Permit Modification project is the expansion of an existing 50-bed residential alcohol and drug treatment and recovery facility. The facility wishes to expand in phases to eventually accommodate up to 125 men. Proposed new facilities include a multi-purpose building, five dormitories, two parking lots, improved driveways and new septic systems.

Although the entire property consists of several parcels totaling 112.6 acres, the area of new impacts to sensitive biological resources will be limited to 6.7 acres roughly contiguous with existing facilities and a 20’ wide trail easement on the parcel to the east of the project site. Since the second submittal, the project design has been slightly modified to move two leach fields approximately 1200 and 1600 feet north of the proposed new facilities, connected by means of two tight lines.

PROJECT LOCATION AND SETTING

The project site is situated in southeastern San Diego County, at 1777 Buckman Springs Road (County Road S1) northwest of the community of Campo. It is slightly north of the intersection with Lake Morena Drive (Figures 1 and 2). The portion of the site to be developed is mostly flat or with a gentle west facing slope. The approximate USGS coordinates for the site are 32°39’N, 116°29’W (Cameron Corners 7.5 minute series quadrangle, see Figure 3). The elevation of the site is approximately 2,800 feet ASL.

The site is bordered on north, south, and west by long-existing developed rural residential properties. Along the east boundary is an extensive region of Southern Mixed Chaparral. The

San Diego Gas and Electric Sunrise Powerlink traverses the property at its northern end. This area is more than 1500 feet north of the proposed project site.

METHODS

To conduct an assessment of biological resources and a Wetland Survey, I visited the project site on 25 May 2011. The conditions for observation during the visit were excellent, with no cloud cover, no impediments to visibility, temperatures in the high 70s, and 0-3 knots NW wind. The visit lasted from approximately 1130 to 1745. During my visit, I was able to examine the entire project site and adjacent areas. An additional visit to survey again for sensitive plant species was conducted on 27 July 2011. My observations on-site were recorded as they were made, and form the basis of this report and the project Biological Resources Map. Animals were identified using scat, tracks, burrows, vocalizations, or by direct observation with the aid of 10X42 Leica binoculars. Vegetation mapping was conducted in accordance with vegetation community definitions as described in Draft Vegetation Communities of San Diego County (2008) which is based on Holland (1986). In addition, vegetation mapping on-site was aided by the use of a digital color satellite photograph. It should be noted that all vegetation community mapping is verified on the ground to the greatest degree possible in the absence of a systematic land survey. All vegetation areas and boundaries are estimates subject to final delineation by a licensed Professional Land Surveyor.

The wetland survey was also conducted during the 23 May site visit. Survey methods were based on the County RPO wetland definition and additionally generally followed the protocol as set forth by the 1987 Army Corps of Engineers Wetland Delineation Manual (Wetland Training Institute 1995). The USGS 7.5 minute topographical map for the area was also reviewed for wetland indicators.

Sensitive Species and Habitats

Prior to the initial visit, a variety of sources were reviewed to ascertain the potential occurrence of sensitive species at the project site. First, soil types (Bowman 1973) were checked to determine if the site contains soils known to support sensitive plant species. Records searches for the USGS quadrangle and surrounding quads were done of the California Natural Diversity Data Base (CNDDB) and California Native Plant Society (CNPS) On-Line Inventory of Rare and Endangered Plants. Any sensitive species known to occur in the vicinity were given special attention, and available natural history information was reviewed. Seasonal occurrence patterns (*e.g.*, annual plants, migratory birds) were factored into survey plans in the event that site visits were made during time periods when certain sensitive species are not present or conspicuous. Information sources include the Jepson Manual (1993), Rare Plants of San Diego (Reiser 1994), A Flora of San Diego County, California (Beauchamp 1986), San Diego Native Plants (Lightner 2011), U.S. Fish and Wildlife Service Recovery Plans for Threatened/Endangered Species, the San Diego County Bird Atlas (Unitt 2004), and numerous other references, publications, and on-line resources. Typically, 15-20 field guides to various taxa are taken into the field for quick reference if necessary.

A list of sensitive species with potential to occur at the site was reviewed prior to field work (See Appendix D). All species on the list were reviewed, and those species requiring directed surveys were noted and given appropriate attention.

In the field, potentially sensitive plants species not readily identified *in situ* were photographed and/or collected for identification via keys or other methods. During site visits, all habitats were assessed for their suitability for occupation by any sensitive species with potential to occur.

RESULTS[1]

Soils

Based on soil conservation service maps (Bowman 1973 - Figure 4), the soil types for the project site are (MvC) Mottsville loamy coarse sand, 2 to 9% slopes (western side of area to be developed) and (LaE2) La Posta loamy coarse sand, 5 to 30% slopes, eroded. Other portions of the site also contain (CaD2) Calpine coarse sandy loam, 9 to 15% slopes, eroded. Large boulder outcrops are found throughout the site. Although a detailed soil analysis is beyond the scope of this report, on-site examination appeared to verify these principal soil types.

Habitats / Vegetation Communities (See Biological Resources Map)

Urban / Developed - Holland Code 12000 (12.5 acres)

This area includes numerous buildings for administration, housing, meetings, dining, and other activities that are a part of the program at the San Diego Freedom Ranch (Photographs 1 - 4). This area also includes driveways and parking areas, vegetable gardening and animal husbandry areas, ornamental plantings and outdoor recreation areas. Most of the existing development has taken place in the shade of an extensive grove of coast live oak *Quercus agrifolia* trees. This grove extends off-site to both the north and south. The project will not result in new impacts to oaks.

Disturbed - Holland Code 11300 (1.2 acres)

Two areas east of the existing development have been essentially void of vegetation (bare ground) since *at least* 2005 (per historic aerial imagery). A small additional amount of brush in the vicinity was cleared in the last few years for fuel abatement purposes.

Southern Mixed Chaparral - Holland Code 37120 (83.8 acres)

This vegetation on the project site is very dense and mature, with heights in places reaching 15 feet. Dominant and characteristic plant species include chamise *Adenostoma fasciculatum*, buckbrush *Ceanothus cuneatus*, mountain mahogany *Cercocarpus betuloides*, big berry manzanita *Arctostaphylos glauca*, and others. The area has apparently not burned in many

[1] Scientific and common names for plant species are derived from The Jepson Manual, 1993; scientific and common names for birds from the A.O.U. Check-list of North American Birds, 1998.

decades. Close examination of the site reveals that the Southern Mixed Chaparral area is primarily dominated by chaparral plant and animal species. This area does not meet the criteria for classification as Coastal Sage Scrub or Coastal Sage-Chaparral Scrub.

Non-Native Grassland - Holland Code 42200 (14.4 acres)

This area is restricted to a large open field in the northwest portion of the site, adjacent to Buckman Springs Road. It is dominated by herbaceous weeds such as dove weed *Eremocarpus setigerus*, mustard *Brassica nigra*, horseweed *Conyza canadensis*, red-stemmed filaree *Erodium cicutarium*, and non-native grasses (*e.g.*, *Avena* and *Bromus* ssp. - Photograph 6). There will be no impacts to this habitat type resulting from project implementation.

Orchards and Vineyards - Holland Code 18100 (0.7 acres)

In the extreme southwest corner of the site as an area of fruit trees tended to supply fresh fruit to the program's kitchen facility (Photograph 5).

Wildlife

During the site survey a variety of common resident bird species were observed. These included Anna's Hummingbird *Calypte anna*, Western Scrub-Jay *Aphelocoma californica*, and California Towhee *Pipilo crissalis*. A Red-tailed Hawk *Buteo jamaicensis* was seen flying over the site.

Mammals recorded from the site include California Ground Squirrel *Spermophilus beecheyi*, Botta's Pocket Gopher *Thomomys bottae*, and Desert Cottontail *Sylvilagus audubonii*. Reptiles observed include Western Fence Lizard *Sceloporus occidentalis*, Granite Spiny Lizard *Sceloporus orcutti* and Coastal Western Whiptail *Aspidoscelis tigris stejnegeri* (= *Cnemidophorus tigris multiscutatus*).

Other common wildlife species likely occur on-site. A complete list of animal species detected on the site is provided in Appendix B.

Special Status Species

Directed surveys and habitat assessments for species with potential to occur (Appendix D) were conducted. The site lacks appropriate habitat for many sensitive species. However, several sensitive species were detected, These include:

Sticky geraea *Geraea viscida* is a short-lived herbaceous perennial that occurs in the high deserts of San Diego County and northern Baja California. It prefers sandy, xeric locales and is quick to invade recently disturbed areas. The species is on the County's Sensitive Species List B, indicating that it is "Rare, threatened, or endangered in San Diego County but is more common elsewhere". Populations of the plant in San Diego County are considered stable based on the limited development within its relatively wide-ranging habitat on the high desert (Reiser 1994).

A total of 259 individuals of this species were located on the project site during directed Spring surveys for sensitive plants (Figure 6). Approximately half of these occur in the northern portion of the site, which is not slated for development. No individuals of Sticky geraea will be impacted by project implementation.

Coastal Western Whiptails *Aspidoscelis tigris stejnegeri* (= *Cnemidophorus tigris multiscutatus*) occur in Chaparral, Riparian, and Oak Woodland habitats. The subspecies *stejnegeri* occurs from Point Conception south into Baja California. The species is on the County's Group 2 sensitive species list, but is otherwise not on the California Special Animals List, or any other government or conservation group's listings. This suggests that on a statewide basis, there are no significant conservation concerns for the species. This species was observed on-site near the currently developed area. County guidelines require that in order not to be considered a significant impact, the project should not impact the local long-term survival of the species. Given the relatively small area of impact, and contiguous vast undeveloped areas of BLM, Forest Service land, and northern Baja California, it is unlikely this project would have a local significant impact on this species.

The **Western Bluebird** *Sialia mexicana* is "a common resident of San Diego County's foothills and mountains, especially where meadows lie among groves of oak or pine. In San Diego County, the species shows signs of moving beyond its primitive range, colonizing urban areas with mature trees and wide lawns" (Unitt 2004). Over much of its extensive range throughout the southern Rocky Mountains, along the Pacific Coast, and in Central Mexico, the species appears to be in decline as a result of loss of nest cavities to logging and fire suppression, and from competition for nest cavities from European Starlings *Sturnus vulgaris* and House Sparrows *Passer domesticus*. However, in San Diego County, the Western Bluebird may actually be expanding its range. Project implementation is unlikely to have any adverse impacts because habitat for the species on-site will not be impacted.

Three additional species are considered moderately likely to occur. These are:

Red-shouldered Hawks *Buteo lineatus* are common and widespread residents and migrants in San Diego County, occurring in a wide variety of habitats including orchards and residential areas. Their population has increased dramatically in the last 100 years, and they are now extremely common in urban settings. It can be stated with a high degree of certainty that urbanization and agriculture have been beneficial for this species. The species was not recorded during site surveys, but their occasional occurrence would not be unlikely. Project implementation is unlikely to have any adverse impacts because habitat for the species on-site will not be impacted.

Cooper's Hawks *Accipiter cooperi*, a state species of special concern, often forage in search of small birds over a variety of habitats. This urban-adapted species also occurs in oak woodlands and developed/residential areas. They are a common resident and migratory species in San Diego County. Although this species has apparently declined throughout much of California, there is no evidence for a breeding population decline in San Diego County. This species is not included in the U.S. Fish and Wildlife Service's comprehensive list of Birds of Conservation Concern for the Southern California Bird Conservation Region (USFWS 2002). No Cooper's Hawks were seen during the site surveys, but their occurrence would not be

surprising. The project would not adversely affect the species preferred habitat, thus no impacts are expected.

Turkey Vultures *Cathartes aura* forage for carrion over a variety of habitats. They are common migrants and winter residents in San Diego County, and were a formerly more common breeding species. The site may occasionally be used as foraging habitat for this species. As ground nesters, Turkey Vultures are highly sensitive to disturbance at their nests. No suitable nesting habitat occurs on, near, or in the general vicinity of the project site. No impacts to this species are anticipated.

Additional discussion is warranted regarding listed species believed to occur in the region. These are:

The **Quino Checkerspot Butterfly** *Euphydryas editha quino* was listed as an endangered species on January 16, 1997. The Quino is best thought of as a two-phase insect: the larvae (caterpillar) and the flying adult (butterfly). The larvae feed virtually exclusively on a small ephemeral annual plant - dot-seed plantain *Plantago erecta*. The plantain competes poorly with other plants and tends, therefore, to be found on open soils, frequently on clays. A closed canopy of either shrubs or weedy annuals and perennials will preclude the plantain from a location. In the laboratory, the larvae also feed on a small suite of plant species from the Monkey-flower Family (*Scrophulariaceae*), but they have not been found on these plants in the wild (with one or two rare exceptions). The adult Quino can be found in association with the larval food plants - it is here that the adult hatches from its pupal case and it is here that the female lays her eggs - but they also exhibit a behavior known as “hilltopping.” When they hatch from their pupa, adult males fly to the nearest hilltop (local topographic high point) where they patrol awaiting the arrival of female Quino. Mating occurs on these hilltops with the males then continuing their patrols and the females returning to the areas of larval food plants where they lay their eggs.

Given the life history outlined above, it can be logically concluded that a survey for the Quino Checkerspot Butterfly would also be in two phases: monitoring of stands of the food plant and monitoring hilltopping locations, both during the flight season of the butterfly (Fish and Wildlife Service Protocol, 2002).

Protocol surveys for this species were conducted in the Spring of 2011 by David Faulkner, a professional entomologist and expert on Quino Checkerspot Butterflies. None were detected or considered likely to occur (Appendix E).

The **California Gnatcatcher** *Polioptila californica* is a federal threatened species, a state species of concern, and is a "target species" of the NCCP process. This species is a non-migratory resident whose range covers the coastal plains and foothills of Southern California and northern Baja California. In San Diego County, it is widespread in coastal lowlands below about 2,000 feet elevation and typically occurs in or near CSS. The California Gnatcatcher is declining due to loss of habitat. Between 85% and 90% of this species’ habitat has been lost to urban or agricultural development. It is almost extirpated from Ventura, San Bernadino, and Los Angeles counties. The population is estimated to be just under 5000 pairs. San Diego County appears to be the center of abundance within the United States for this species.

The primary vegetation on the site (Southern Mixed Chaparral) is too dense and tall for this species. Because no suitable habitat occurs on or near the site, protocol surveys are not recommended. Impacts are not anticipated.

Large mammals, such as Mule Deer and Mountain Lion prefer large unfragmented natural areas that offer extensive forage or hunting opportunities as well as the opportunity for movement across long distances. The project site is surrounded by exceptionally extensive undeveloped areas suitable for use by large mammals. Due to the small footprint of the proposed development, significant impacts to large mammals are not anticipated.

Raptor Habitat. In general the Southern Mixed Chaparral on the site is too dense and tall to offer opportunities for **raptor foraging**. The Non-Native Grassland likely serves occasionally as foraging habitat. Some of the trees on-site may provide **foraging** and **nesting habitat** for raptors such as Red-shouldered Hawks and Cooper's Hawks. The project would not adversely affect raptor species preferred habitats, thus no impacts are expected.

Wildlife Movement Corridors and Nursery Sites

A wildlife corridor can be defined as a linear landscape feature allowing animal movement between two larger patches of habitat. Connections between extensive areas of open space are integral to maintain regional biodiversity and population viability. In the absence of corridors, habitats become isolated islands surrounded by development. Fragmented habitats support significantly lower numbers of species and increase the likelihood of local extinction for some species when they are restricted to small isolated areas of habitat. Areas that serve as wildlife movement corridors are considered biologically sensitive.

Wildlife corridors can be defined in two categories: regional corridors and local corridors. Regional corridors link large areas of undeveloped land and serve to maintain genetic diversity among wide-ranging populations. Local corridors permit movement between smaller patches of habitat. These linkages effectively allow a series of small, connected patches to function as a larger block of habitat and perhaps result in the occurrence of higher species diversity or numbers of individuals than would otherwise occur in isolation. Target species for wildlife corridor assessment typically include species such as Bobcat, Mountain Lion, and Mule Deer.

To assess the function and value of a particular site as a wildlife corridor, it is necessary to determine what areas of larger habitats it connects, and to examine the quality of the corridor as it passes through a variety of settings. High quality corridors connect extensive areas of native habitat, and are not degraded to the point where free movement of wildlife is significantly constrained. Typically, high quality corridors consist of an unbroken stretch of undisturbed native habitat. The main wildlife movement corridors in the vicinity are Hauser and Cottonwood Creeks (west of the project site and Lake Morena) and Campo Creek (south of the site).

The project site does not contain wetlands or topographical features that would typically serve as wildlife corridors. It is also surrounded on three sides by existing development. Thus, the project site does not serve as a wildlife movement corridor.

Native Wildlife Nursery Sites, which are considered sensitive resources that require protection, are defined in the County of San Diego Guidelines for Determining Significance - Biological Resources as "sites where wildlife concentrate for hatching and/or raising young, such as rookeries, spawning areas, and bat colonies". Features such as individual raptor or woodrat nests do not constitute places where wildlife *concentrate*, thus they do not meet this definition and are therefore not considered Native Wildlife Nursery Sites. No Native Wildlife Nursery Sites occur on the site or will be impacted by project implementation.

Resource Protection Ordinance Wetlands and Jurisdictional Resources

Pursuant to the November 12, 2011 scoping letter a Wetland Survey of the project site was conducted to determine if any features on the site meet the definition of wetlands under the Resource Protection Ordinance (RPO) or other jurisdictional agencies. The RPO [§ 86.602 (m)] notes that "Riparian Habitat is characterized by plant and animal communities which require high soil moisture conditions maintained by transported freshwater in excess of that otherwise available through local precipitation." The RPO [§ 86.602 (q)(1)] further defines wetlands;

Lands having one or more of the following attributes are "wetlands":

(aa). At least periodically, the land supports predominantly hydrophytes (plants whose habitat is water or very wet places);

(bb). The substratum is predominantly undrained hydric soil; or

(cc). An ephemeral or perennial stream is present, whose substratum is predominately non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

During significant rainfall events sheet flow of runoff from properties to the north flows through the existing development (under the oaks) area and off-site to the south (Photographs 7 and 8). There are no plant or animal species or communities which require high soil moisture content. There is no evidence that there is ever the presence of fresh water in excess of that provided by local precipitation.

In the complete absence of hydrophytic vegetation, hydric soils, and evidence of hydrology, there are no wetlands or other indications (*e.g*., Ordinary High Water Marks) suggesting that jurisdictional waters of any kind occur on the property. The drainage feature does not contain RPO wetlands.

SIGNIFICANCE OF PROJECT IMPACTS AND PROPOSED MITIGATION

The California Environmental Quality Act (CEQA) requires that projects avoid or adequately mitigate for the loss of sensitive species and habitats. Such avoidance or mitigation enables County staff to make a finding that all project impacts are below or will be reduced to less than significant and to issue a Negative Declaration or Mitigated Negative Declaration for the proposed project.

Direct Impacts

Direct impacts occur when biological resources are altered or destroyed during the course of, or as a result of, project implementation. Examples of such impacts include removal or grading of vegetation, filling wetland habitats, or severing or physically restricting the width of wildlife corridors. Other direct impacts may include loss of foraging or nesting habitat and loss of individual species as a result of habitat clearing. Permanent impacts may result in irreversible damage to biological resources. Temporary impacts are interim changes in the local environment due to construction and would not extend beyond project-associated construction. Direct impacts of this project will result in the loss of Southern Mixed Chaparral.

Indirect Impacts

There is a potential for indirect impacts from the project which would increase the population of the ranch from 50 to 125 residents. The proposed improvements include improvements to the activity area which is adjacent to the existing development and Buckman Springs Road where indirect impacts due to construction and operation (noise, light, and human activity) would be minimal. The proposed project includes paving of existing and proposed vehicle use areas which will lessen indirect impacts due to dust. Proposed trails are planned for existing paths and dirt roads where indirect impacts due to introduction of non-native pest plant species would have already occurred. Freedom Ranch does not allow biking, horseback riding or unsupervised hiking beyond the developed areas, so new trails would not experience operational impacts from the project. Indirect impacts from the project's improvements to the proposed activity areas would be less than significant.

The site would more than double the number of human occupancy. This would increase the potential for human influenced indirect impacts. However, the Freedom Ranch provides a structured program with daytime activities. The location of the ongoing and proposed activities is within the area near the existing residences and road where the indirect impacts already exist and it is primarily disturbed and grassland (less sensitive) biological resources. Therefore, the indirect impact due to the added number of guests at the ranch would be less than significant.

The new residences would be adjacent to native habitat and there would be some additional noise and security lighting in that area. The project footprint would expand from 14 acres to 21 acres in a 112 acre site. The remainder of the site is southern mixed chaparral which is difficult to move through on foot for humans so human influenced indirect impacts is reduced. The indirect impact of having new residential uses adjacent to the chaparral would be less than significant due to the regulatory nature of the facility, the incorporation of the required fuel management area, and the nature of the dense chaparral.

Cumulative Impacts

Cumulative impacts consider the potential regional effects of a project and how a project may affect an ecosystem or one of its sensitive components beyond the project limits and on a regional scale. Section 15064 of the State CEQA Guidelines governs the determination of significant environmental impacts caused by a project. The evaluation of a project's cumulative impacts is discussed in Section 15064(h) of the CEQA Guidelines. Cumulative impacts must be

discussed when project impacts, although individually limited, may be cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects affecting the same resource (CEQA Guidelines §15064(h)(1)).

A lead agency may determine in an initial study that “a project’s contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant”. When a project might contribute to a significant cumulative impact, but the contribution will be rendered less than cumulatively considerable through mitigation measures set forth in a mitigated negative declaration, the initial study shall briefly indicate and explain how the contribution has been rendered less than “cumulatively considerable” (CEQA Guidelines §15064(h)(2)). The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project’s incremental effects are cumulatively considerable (CEQA Guidelines §15064 (h)(4)).

In the absence of adequate mitigation, the San Diego Freedom Ranch project would have the potential to significantly degrade the quality of the environment. Other effects that would be considered cumulatively considerable would include substantial reduction of the habitat of a fish or wildlife species that causes a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or significantly reduce the number or restrict the range of a rare or endangered plant or animal species. None of these other effects apply to the project.

County Staff has requested discussion of potential cumulative impacts when considered together with three other projects in the region. These are:

The Inman project (TPM 21081). This project was denied on April 13, 2012. The Sol Orchard project (AD11-033). This project was withdrawn on January 2, 2013. The Star Ranch Specific Plan (SP05-002), if approved, would impact approximately 82 acres of Southern Mixed Chaparral, however, mitigation for those impacts would take place onsite and impacts would be below a level of significant.

The Freedom Ranch project could result in cumulatively considerable impacts (in the absence of adequate mitigation). However, because all project impacts will be mitigated onsite to a level that is “less than significant”, the project will not result in impacts that are cumulatively considerable.

Direct Impact Analysis

The CEQA Guidelines define “significant effect on the environment” as a “substantial, or potentially substantial adverse change in the environment.” The CEQA Guidelines further indicate that there may be a significant effect on biological resources if the project will:

A. Substantially affect an endangered, rare or threatened species of animal or plant or the habitat of the species.

B. Interfere substantially with the movement of any resident or migratory fish or wildlife species to the extent that it adversely affects the population dynamics of the species.

C. Substantially diminish habitat for fish, wildlife, or plants.

The project as proposed will impact sensitive vegetation communities and plants. A tabulation of project habitat impacts is presented in Table 1.

Table 1. Existing, impacted, and preserved habitat on the project site.

PLANT COMMUNITY	ACREAGE ON-SITE	IMPACTED ACREAGE ON-SITE	IMPACTED ACREAGE OFF-SITE	IMPACT NEUTRAL	ACREAGE PRESERVED ON-SITE	TOTAL MITIGATION REQUIRED (Ratio)	ON-SITE MITIGATION	OFF-SITE MITIGATION
SOUTHERN MIXED CHAPARRAL	84.5	6.75	0.49*	0	3.6	3.62 (0.5:1)	3.62	0
DISTURBED HABITAT	1.2	N / A	N / A	N / A	N / A	N / A	N / A	N / A
NON-NATIVE GRASSLAND	14.4	0	0	0	0	0	0	0
URBAN / DEVELOPED	12.5	N / A	N / A	N / A	N / A	N / A	N / A	N / A
ORCHARDS AND VINEYARDS	0.7	N / A	N / A	N / A	N / A	N / A	N / A	N / A
TOTAL	112.6	6.75	0.49	0	3.6	3.62	3.62	0

* Impacts associated with proposed 20’ trail easement. Impact acreage arrived at by calculating entire easement area and subtracting area of existing 16’ wide dirt road.

Mitigation and Recommendations

The project as proposed will result in significant impacts to 7.24 acres of Southern Mixed Chaparral, habitat considered sensitive by the County of San Diego (County of San Diego Significance Guidelines - Biology). These impacts will require mitigation to reduce impacts to a level below significant and be in compliance with CEQA. Based on the Significance Guidelines, the appropriate ratio for mitigating impacts to this habitat type is 0.5:1. At this ratio, it will require 3.62 acres of habitat to be preserved to meet the mitigation requirements and reduce impacts to less than significant.

It is proposed that mitigation take place on-site. The County Biological Significance Guidelines suggest that:

- On-site open space is appropriate if a site hosts moderate value biological resources and site-specific factors dictate that on-site mitigation would be biologically viable, and/or

- A site hosts low value habitat but is part of a larger habitat complex that is biologically viable.

Although planning for the future East County MSCP is not yet at the point of identifying proposed Pre-Approved Mitigation Areas, the proposed mitigation site is located on a parcel contiguous with the project site (Figure 7). The mitigation site will be contiguous with property owned by the United States government. In addition, the mitigation site is also near extensive tracts of open space under the jurisdiction of the Bureau of Land Management. It is unlikely the open space will be compromised by future development.

The mitigation site will be placed into an open space easement granted to the County of San Diego.

Due to the isolated and inaccessible nature of the mitigation site, fencing should not be required. The perimeter should, however, have signs placed to 50' intervals stating the following:

Sensitive Environmental Resources
Area Restricted by Easement

Entry without express written permission from the County of San Diego is prohibited.
To report a violation or for more information about easement restrictions and exceptions
contact the County of San Diego, Department of Planning and Development Services.
Reference: PDS2012-3301-74-011-07, ER 12-21-002

Limitations on construction activities during the bird nesting season (for raptors, February 1 to June 1; for migratory birds, February 1 to August 31st) are recommended to reduce impacts to avian resources. If it is determined by a qualified biologist that no nesting is occurring within 300 feet (for passerine birds) or 500 feet (for raptors) of construction activity, such activities may proceed with concurrence from the Department of Fish and Game and the U.S. Fish and Wildlife Service.

In order to prevent any adverse impacts to off-site resources, it is recommended that adequate measures (Best Management Practices) be taken during construction to prevent runoff from entering protected habitats, drainages, or other properties. These measures should be sufficient to reduce any possible indirect impacts of the proposed project to a level well below significant.

Impacts to sensitive biological resources will be mitigated to lass than significant as defined by CEQA and based on the current County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources.

Thank you very much for the opportunity to conduct this work and prepare this report. Please contact me if I can provide any additional information or clarification.

Sincerely,

William T. Everett, MS, FN, FRGS
San Diego County Approved Biological Consultant

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U.S. Geologic Survey. 1967. 1975 Photo Revised. Cameron Corners Quadrangle 7.5 minute topographical map.

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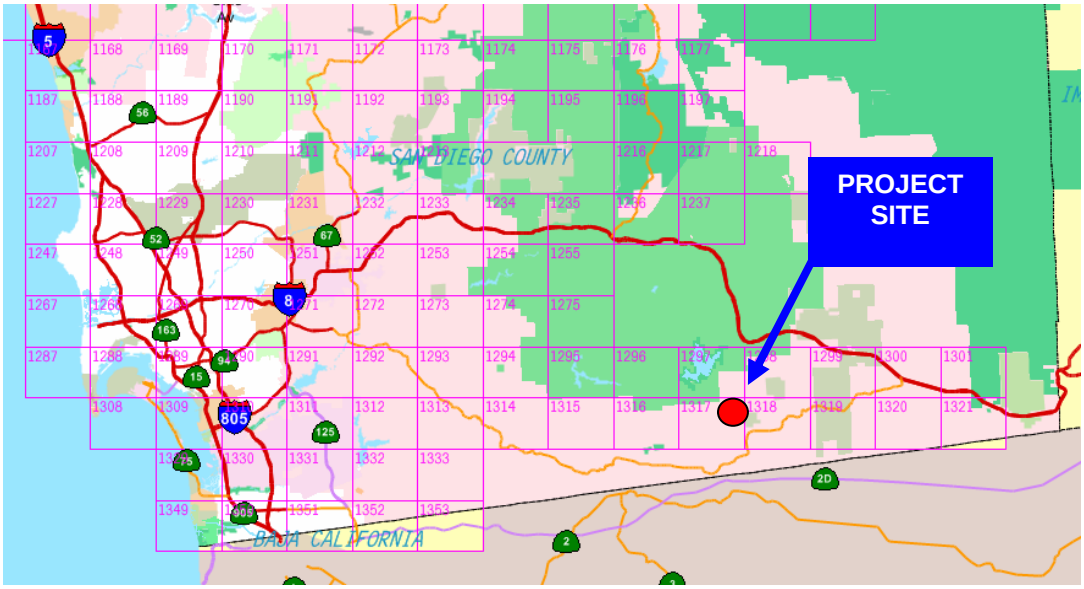


Figure 1. Location of project site in regional context. Thomas Bros. Map page #1317, H2.

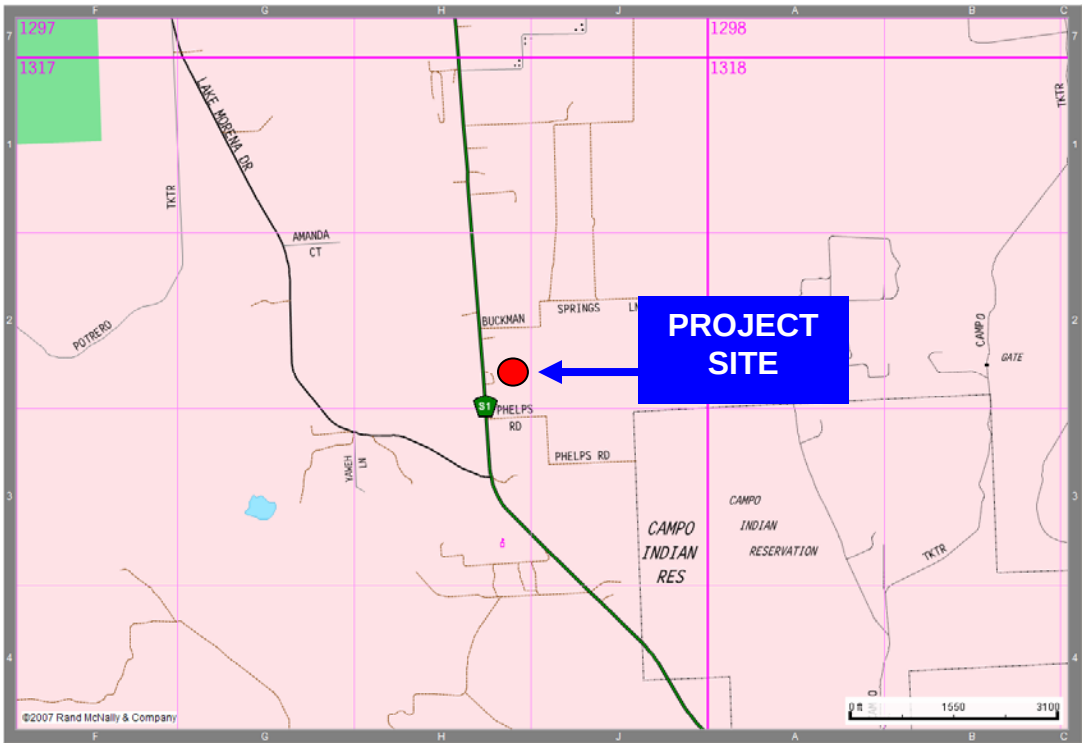


Figure 2. Detail location map of project site. Thomas Bros. Map page #1317, H2.

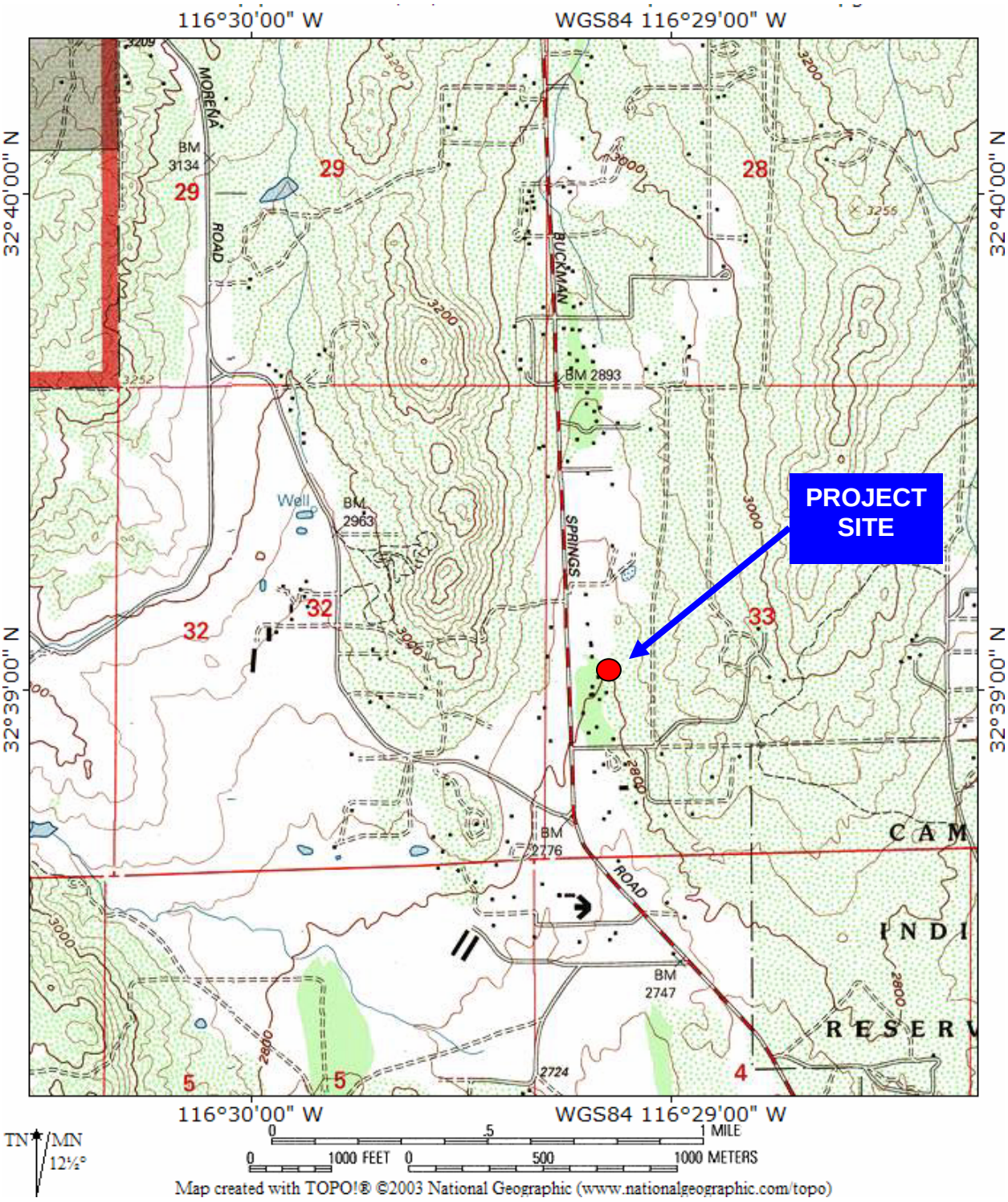


Figure 3. Topographical map showing project site location. Taken from USGS Cameron Corners 7.5 Minute series quadrangle.

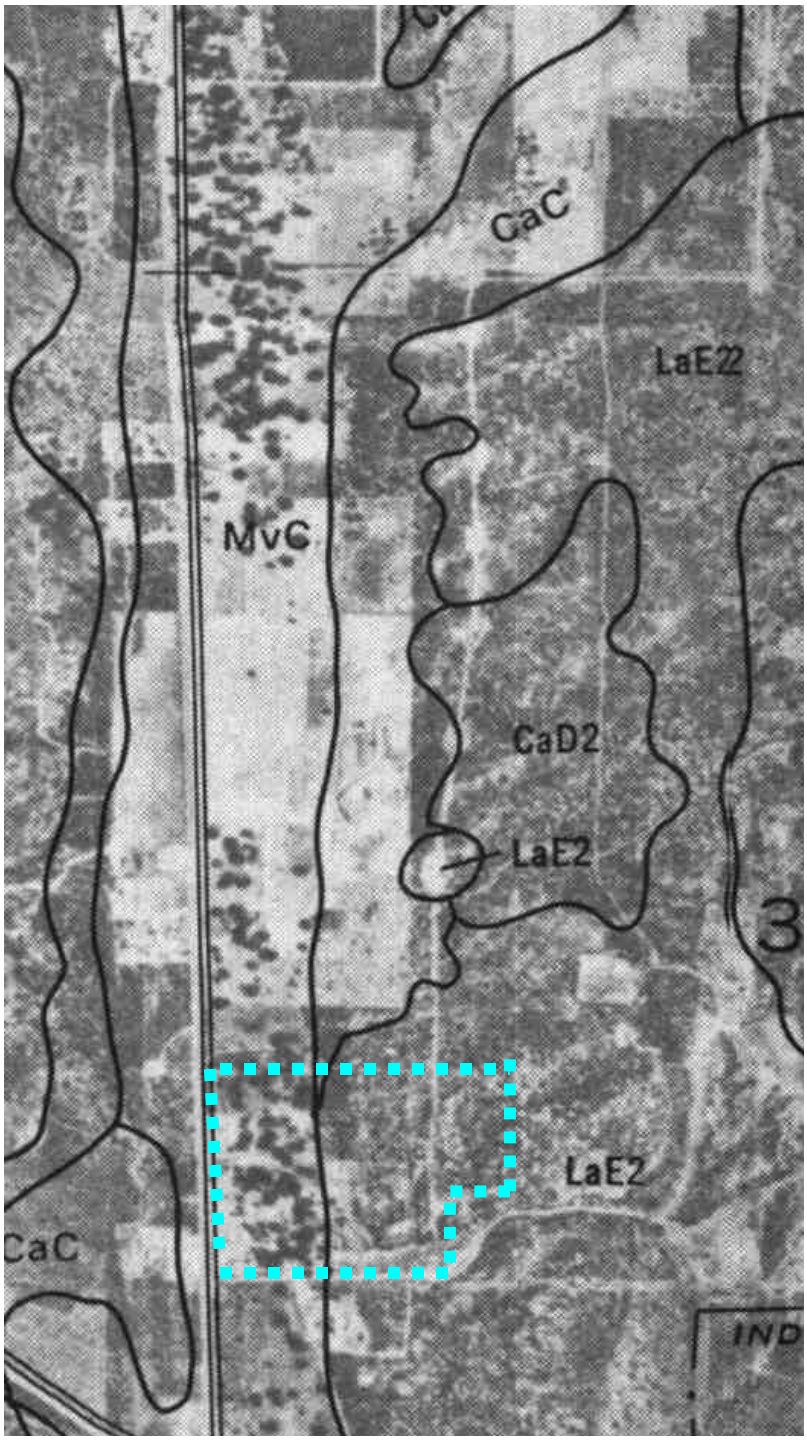


Figure 4. Soils map of the vicinity of the project site (Bowman, 1973). Dotted line indicates extent of development envelope.

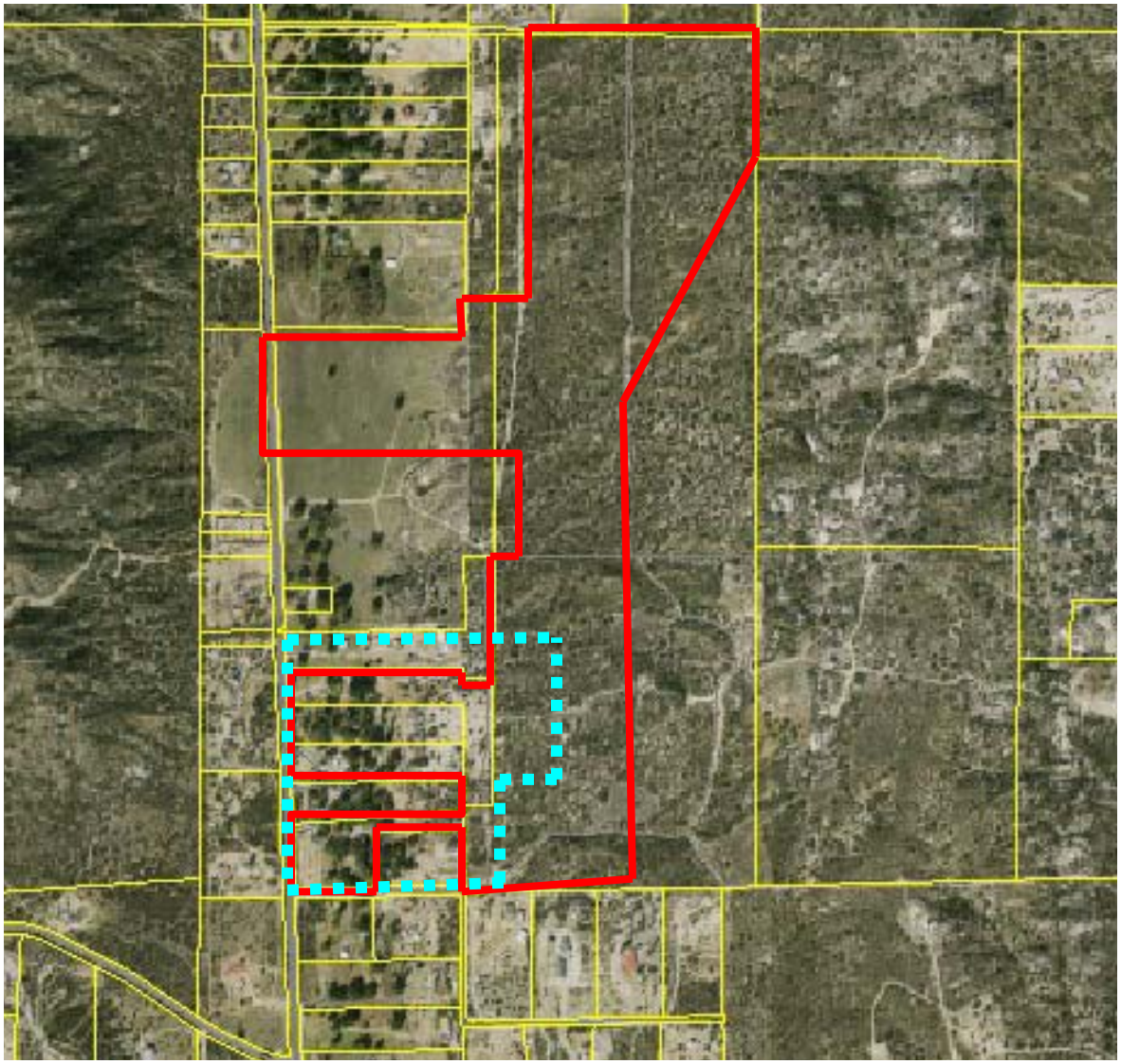


Figure 5. Satellite photograph of project site (photograph by SANDAG/SanGIS 2011), showing parcel boundaries for project site (outlined in red, in center) and adjacent properties in yellow. Area surrounded by blue dotted line is the approximate area of proposed improvements. Top of photo is true north.

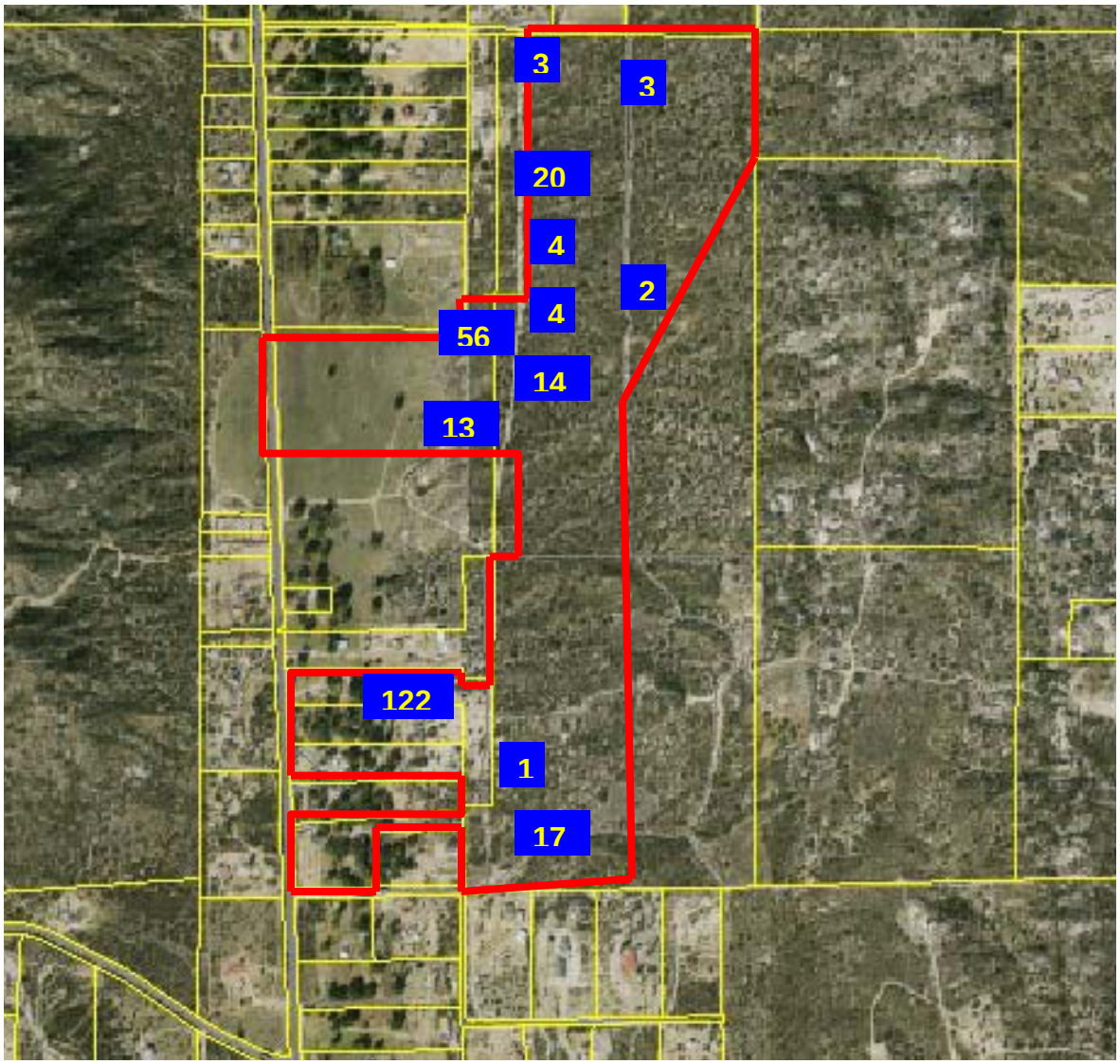


Figure 6. Locations of individuals or groups of individuals of sticky geraea.

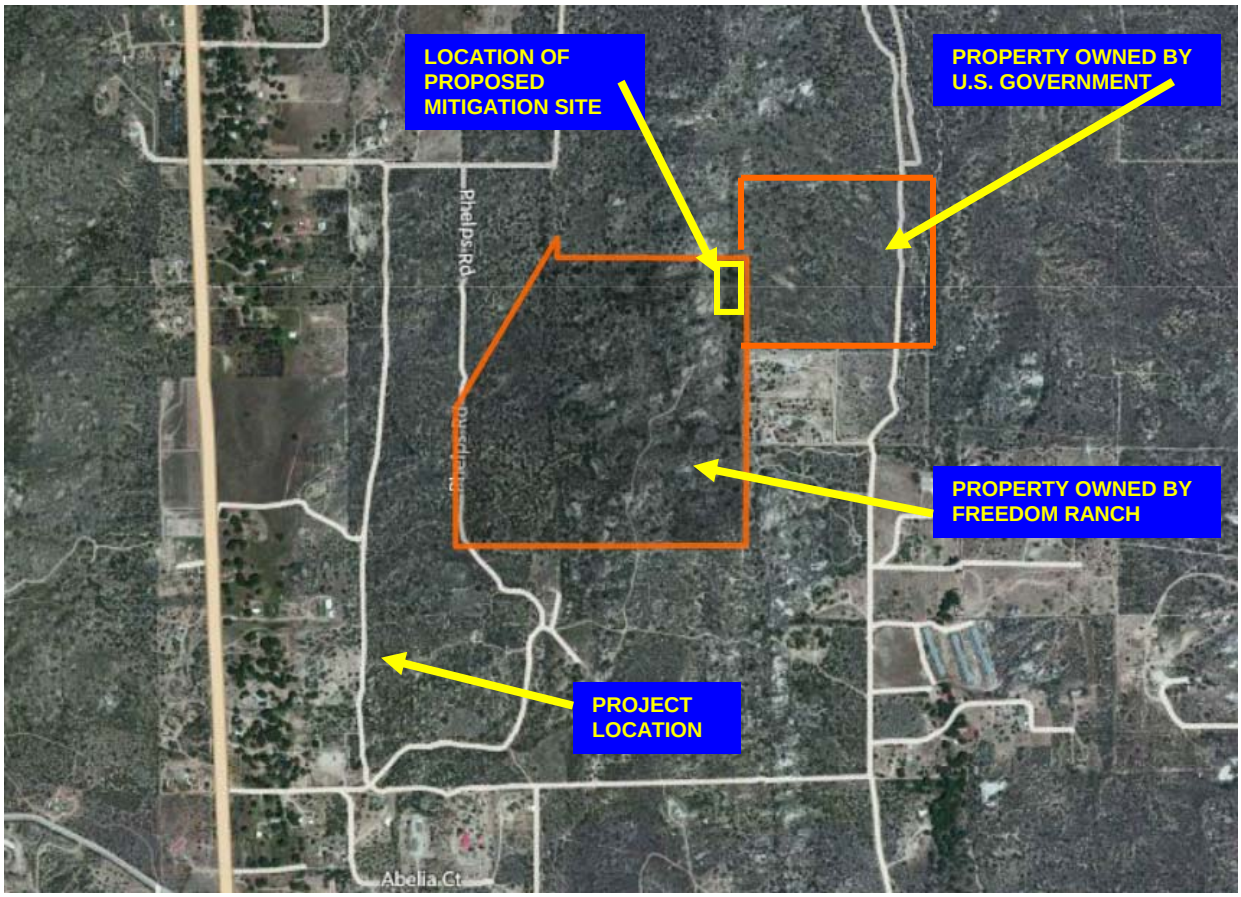


Figure 7. Location of proposed mitigation site.

APPENDIX A

PLANT SPECIES OBSERVED ON THE PROJECT SITE

Family	Scientific Name	Common Name
Dicotyledoneae		
Anacardiaceae - Sumac Family		
	Rhus ovata	Sugar Bush
	Rhus trilobata	Skunkbrush
Asteraceae (Compositae) - Sunflower Family		
	Acourtia microcephalla	Perezia
	Ambrosia psilostachya	Western Ragweed
	Artemesia tridentata	Big Sagebrush
	Centaurea melitensis	Tocalote
	Chamomilla suaveolens	Pineapple Weed
	Cirsium occidentale var. *californicum*	California Thistle
	Conyza canadensis	Horseweed
	Ericameria linearifolia	Narrowleaf Goldenbush
	Eriophyllum confertiflorum	Golden Yarrow
	Filago gallica	Narrow-Leaf Filago
	Geraea viscida	**Sticky Geraea**
	Gnaphalium californicum	California Everlasting
	Gutierrezia californica	California Matchweed
	Hazardia squarrosa var. *grindelioides*	Saw-toothed Goldenbush
	Heterotheca grandiflora	Telegraph Weed
	Lasthenia gracilis	Goldfields
	Lessingia filaginifolia	Cudweed Aster
	Malacothrix clevelandii	Cleveland's Malacothrix
	Microseris heterocarpa	Derived Microseris
	Rafinesquia californica	California Chicory
	Stephanomeria diegensis	San Diego Wreath Plant
Boraginacaea - Borage Family		
	Amsinckia menziesii	Fiddleneck
	Cryptantha intermedia	Forget Me Not
	Nemophilia menziesii	Baby Blue Eyes

Plagiobothrys nothofulvus	Popcorn Flower

Brassicaceae (Cruciferae) - Mustard Family

Brassica nigra	Black Mustard

Cactaceae - Cactus Family

Opuntia sp.	Cholla
Opuntia phaeacantha	Beavertail Cactus

Caprifoliaceae - Honeysuckle Family

Sambucus mexicana	Elderberry
Lonicera sp.	Honeysuckle

Chenopodiaceae - Goosefoot Family

Chenopodium sp.	Pigweed

Cistacaea - Rock Rose Family

Helianthemum scpraium	Rock Rose

Cucurbitacaea - Gourd Family

Cucurbita foetidissima	Calabazilla

Cuscutacaea - Dodder Family

Cuscuta californica	Dodder

Ericaceae - Heath Family

Arctostaphylos glandulosa	Eastwood Manzanita
Arctostaphylos glauca	Big-Berry Manzanita
Arctostaphylos pungens	Mexican Manzanita

Euphorbiaceae - Spurge Family

Eremocarpus setigerus	Dove Weed

Fabaceae - Pea Family

Lotus argophyllus	Silver Lotus
Lotus scoparius	Deerweed

Fagaceae - Oak Family

Quercus agrifolia var. *agrifolia*	Coast Live Oak
Quercus berberidifolia	Scrub Oak

Geraniaceae - Geranium Family

Erodium cicutarium	Red-stem Filaree

Hydrophyllaceae - Waterleaf Family

Eucrypta chrysanthemifolia	Eucrypta
Phacelia cicutaria	Caterpillar Phacelia
Phacelia distans	Distant Phacelia

Lamiaceae (Labiatae) - Mint Family

Marrubium vulgare	Horehound
Salvia apiana	White Sage
Salvia columbariae	Chia
Trichostemma lanceolatum	Vinegar Weed
Trichostemma parishii	Mountain Blue Curls

Liliaceae - Lily Family

Dichelostemma capitatum	Blue Dicks

Malvaceae - Mallow Family

Malva parviflora	Cheeseweed

Onagraceae - Evening Primrose Family

Camissonia californica	Mustard Evening Primrose
Clarkia purpurea	Purple Clarkia

Paeoniaceae - Peony Family

Paeonia californica	Wild Peony

Polemoniaceae - Phlox Family

Gilia angelensis	Angel’s Gilia
Linanthus sp.	Linanthus
Navarretia atractyloides	Holly-leaved Navarretia

Polygonaceae - Buckwheat Family

Chorizanthe fimbrata	Fringed Spineflower
Chorizanthe staticoides	Turkish Rugging
Eriogonum elongatum	Tall Buckwheat
Eriogonum fasciculatum ssp. *fasciculatum*	California Buckwheat

Primulaceae - Primrose Family

Anagallis arvensis	Scarlet Pimpernel

Ranunculaceae - Buttercup Family

Clematis ligusticifolia	Virgin's Bower
Delphinium cardinale	Scarlet Larkspur
Delphinium parryi	Purple Larkspur

Rhamnaceae - Buckthorn Family

Ceanothus cuneatus	Buckbrush
Ceanothus tomentosus	Ramona Lilac
Rhamnus ilicifolia	Holly-Leaf Redberry

Rosaceae - Rose Family

Adenostoma fasciculatum	Chamise
Cercocarpus betuloides	Mountain Mahogany
Prunus ilicifolia	Holly-Leaf Cherry

Rubiaceae - Madder Family

Galium angustifolium	Narrow-leaf Bedstraw

Scrophulariaceae - Figwort Family

Antirrhinum kelloggii	Twining Snapdragon
Mimulus aurantiacus	Red Bush Monkey-Flower
Penstemon centranthifolius	Scarlet Bugler
Penstemon spectabilis	Showy Penstamon
Scrophularia californica	Coast Figwort

Solanaceae - Nightshade Family

Solanum xanti	Violet Nightshade

Monocotyledoneae

Agavaceae - Agave Family

Agave sp.	Agave
Yucca schidigera	Spanish Bayonet
Yucca whipplei	Chaparral Yucca

Poaceae (Gramineae) - Grass Family

Aristida adscensionis	Six-Weeks Three-Awn
Avena sp.	Wild Oats
Avena barbata	Slender Wild Oat
Avena fatua	Wild Oats
Bromus carinatus	California Brome
Bromus diandrus	Ripgut Grass
Bromus hordeaceus	Soft Chess
Bromus madritensis ssp. *rubens*	Red Brome
Cynodon dactylon	Bermuda Grass
Hordeum marinum	Mediterranean Barley
Hordeum murinum	Hare Barley
Lamarckia aurea	Goldentop
Melica imperfecta	Common Melic

APPENDIX B

WILDLIFE SPECIES OBSERVED OR DETECTED ON THE PROJECT SITE

BIRDS

Red-tailed Hawk	*Buteo jamaicensis*
Anna's Hummingbird	*Calypte anna*
California Quail	*Callipepla californica*
Common Raven	*Corvus corax*
Western Scrub-Jay	*Aphelocoma californica*
Western Bluebird	*Sialia mexicana*
Phainopepla	*Phainopepla nitrens*
California Towhee	*Pipilo crissalis*
California Thrasher	*Toxostoma redivivum*
European Starling	*Sturnus vulgaris*
House Sparrow	*Passer domesticus*

MAMMALS

Desert Cottontail **Sylvilagus audubonii**	Observed
California Ground Squirrel **Spermophilus beecheyi**	Observed
Botta's Pocket Gopher **Thomomys bottae**	Burrows

AMPHIBIANS AND REPTILES

Western Fence Lizard
Sceloporus occidentalis

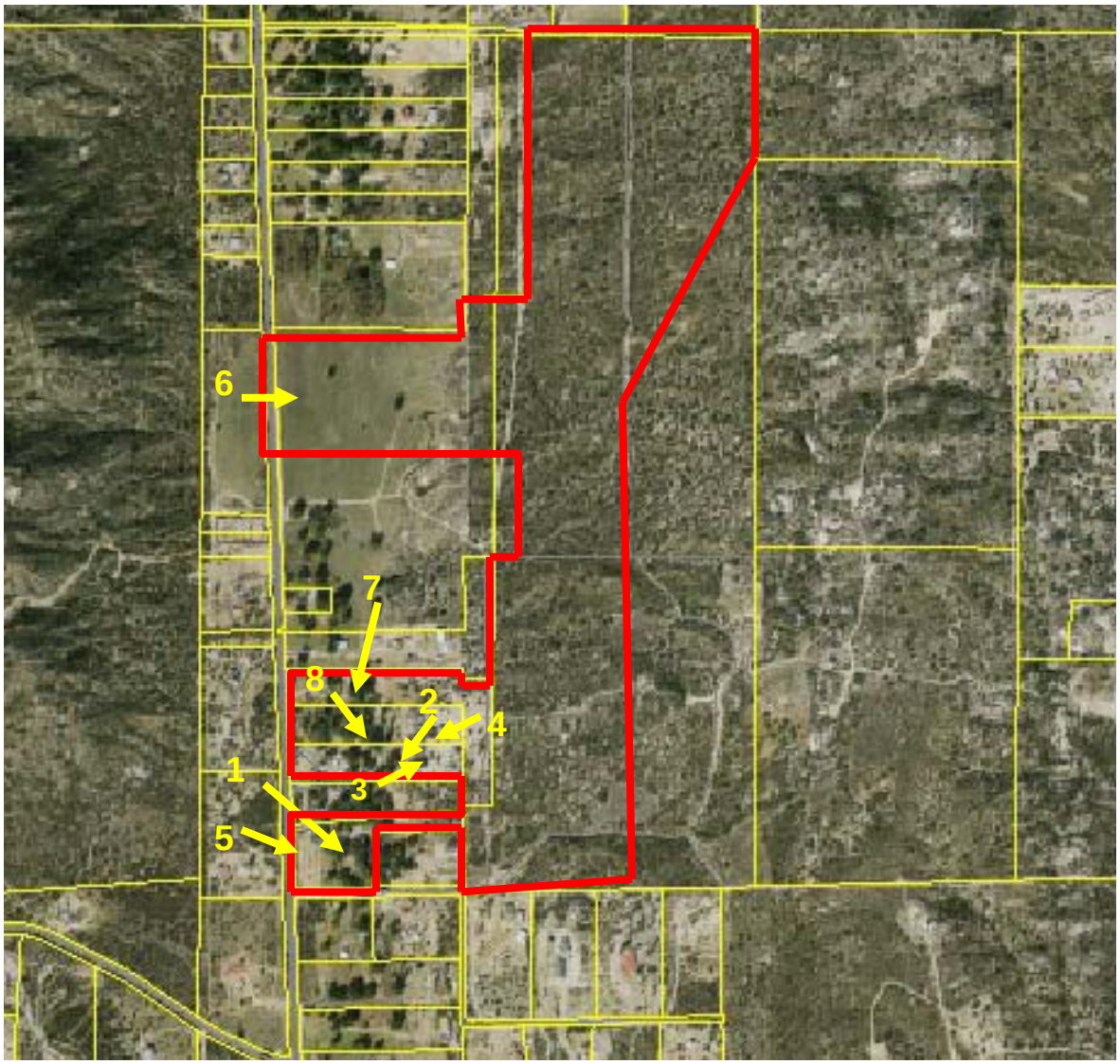
Granite Spiny Lizard
Sceloporus orcutti

Coastal Western Whiptail
Aspidoscelis tigris stejnegeri (= *Cnemidophorus tigris multiscutatus*)

APPENDIX C

PHOTOGRAPHS OF THE PROJECT SITE

All photographs taken 2011 by W.T. Everett



PHOTOGRAPH INDEX

Yellow arrows and numbers indicate the locations and directions from which the following photographs were taken:

Photograph 1. View of existing structures in the southwest corner of the site.

Photograph 2. View of existing structures in the central portion of the site

Photograph 3. One of the gardening and animal husbandry areas.

Photograph 4. Looking towards the central building area.

Photograph 5. Orchard with producing fruit trees.

Photograph 6. View of Non-Native Grassland in northern portion of site (looking east).

Photograph 7. Area in central portion of the site where rainwater flow passes through the site.

Photograph 8. Area in central portion of the site where rainwater flow passes through the site.

APPENDIX D

COUNTY LIST OF SENSITIVE SPECIES WITH POTENTIAL TO OCCUR ON THE PROJECT SITE

Legend

Status

1 = Federally Endangered
2 = Federally Threatened
3 = State Endangered
4 = State Threatened
5 = State Rare
6 = MSCP Narrow Endemic
7 = Not State or Federal Listed
8 = County Sensitive Plant List Designation (A-D)
Ext = Extirpated

Potential to Occur On-site

Note: Species shown in **bold** are those for which Directed Surveys were conducted

L = Low
M = Moderate
H = High
U = Unknown (Sufficient data are not available on the status, distribution, abundance, or natural history of the species to make a reliable determination of the probability of occurring on-site.)

Rationale

1 = Would likely have been detected during directed surveys if present
2 = Appropriate suitable habitat not present on-site. Habitat type may be present on-site, but is likely disturbed, fragmented, isolated, small in extent, dominated by edge effects, may not have appropriate soil type, micro habitat conditions, or is otherwise not suitable for use by the sensitive species.
3 = Insufficient natural history information is available to determine if presence is likely

Scientific Name	Common Name	Status	Observed On-Site (Y or N)	Potential to Occur Onsite - Rationale	Habitat Preferences
Androsace elongata acuta	California rosace	7, 8D	N	L - 1	Grassland
Astragalus douglasii perstrictus	**Jacumba Milkvetch**	**7, 8A**	**N**	**L - 1**	**Mixed Chaparral, Chamise Chaparral, Pinion-Juniper**
Berberis fremontii	Fremont Barberry	7,8C	N	L - 1	Mixed Chaparral, Pinion-Juniper
Caulanthus simulans	Payson's jewelflower	7, 8D	N	L - 1	Mixed Chaparral, Chamise Chaparral, Pinion-Juniper
Clarkia delicata	**Campo clarkia**	**7, 8A**	**N**	**L - 1**	**Oak Woodland**
Delphinium parishii subglobosum	Desert larkspur	7, 8D	N	L - 1	Desert Scrub
Geraea viscida	**Sticky geraea**	**7, 8B**	**Y**	**H**	**Mixed Chaparral, Chamise Chaparral**
Gilia caruifolia	Caraway leaved gilia	7, 8D	N	L - 1	Grassland, Chamise Chaparral, Mixed Conifer
Hemizonia floribunda	**Tecate tarplant**	**7, 8A**	**N**	**L - 1**	**Mixed Chaparral, Grassland**
Hulsea californica	**California hulsea**	**7, 8A**	**N**	**L - 1**	**Mixed Chaparral, Chamise Chaparral**
Hulsea mexicana	**Mexican hulsea**	**7, 8A**	**N**	**L - 1**	**Desert Scrub**
Lathyrus bellus	Pride of California	7, 8D	N	L - 1	Grassland, Oak Woodland, Mixed Conifer
Linanthus bellus	**Desert beauty**	**7, 8A**	**N**	**L - 1**	**Mixed Conifer**

Pentachaeta aurea	Golden-rayed pentachaeta	7, 8D	N	L - 1	Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral
Quercus engelmannii	Engelmann oak	7, 8D	N	L - 1	Riparian, Oak Woodland
Ribes canthariforma	**Morena current**	**7, 8A**	**N**	**L - 1**	**Mixed Chaparral**
Streptanthus campestris	**Southern jewelflower**	**7, 8A**	**N**	**L - 1**	**Mixed Chaparral, Pinion-Juniper**
Danaus plexippus	Monarch butterfly	7	N	L - 2	Grassland, Oak Woodland, Montane Meadow
Euphydryas editha quino	Quino checkerspot butterfly	1	N	L - 2	Coastal Sage Scrub, Grassland, Chamise Chaparral, Desert Scrub, Vernal Pools
Pseudocopaeodes eunus eunus	**Alkali skipper**	**7**	**N**	**L - 2**	**Desert Wash**
Phrynosoma coronatum blainvillei	San Diego horned lizard	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Chamise Chaparral, Mixed Conifer
Cnemidophorus hyperythrus	Orange-throated whiptail	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Chamise Chaparral
Cnemidophorus tigris multiscutatis	Coastal western whiptail	7	Y	H	Mixed Chaparral, Riparian, Oak Woodland, Chamise Chaparral
Charina trivirgata roseoffusca	Coastal rosy boa	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Oak Woodland, Chamise Chaparral
Thamnophis hammondii	**Two-striped Garter Snake**	**7**	**N**	**L - 2**	**Oak Woodland, Freshwater Marsh**
Diadophis punctatus similis	San Diego ringneck snake	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest
Salvadora	Coast patch-	7	N	L	Coastal Sage Scrub,

hexalepis virgultea	nosed snake				Mixed Chaparral, Chamise Chaparral, Freshwater Marsh
Sceloporus graciosus vandenburgianus	Southern sagebrush lizard	7	N	L - 2	Mixed Chaparral, Mixed Conifer, Pinon Juniper
Myotis ciliolabrum	Small-footed myotis	7	N	L	Mixed Chaparral, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Desert Wash, Montane Meadow
Myotis evotis	Long eared myotis	7	N	U - 3	Mixed Chaparral, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon Juniper, Montane Meadow
Myotis thysanodes	Fringed myotis	7	N	U - 3	Mixed Chaparral, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon Juniper, Montane Meadow
Myotis volans	Long legged myotis	7	N	U	Mixed Chaparral, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper

Myotis yumanensis	Yuma myotis	7	N	U - 3	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Freshwater Marsh, Salt or Alkali Marsh, Vernal Pools, Montane Meadow, Lakes and Bays
Corynorhinus townsendii	Townsend's big-eared bat	7	N	L - 2	Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
Antrozous pallidus	Pallid bat	7	N	U - 3	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
Eumops perotis californicus	Greater western mastiff bat	7	N	L - 3	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Freshwater Marsh, Desert Scrub, Desert Wash, Salt or Alkali Marsh, Vernal Pools, Montane Meadow, Lakes and Bays

Lepus californicus bennettii	San Diego black-tailed jackrabbit	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest
Neotoma lepida intermedia	San Diego desert woodrat	7	N	L	Coastal Sage Scrub, Riparian, Oak Woodland, Chamise Chaparral
Chaetodipus fallax fallax	Northwestern San Diego pocket mouse	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Chamise Chaparral, Desert Scrub, Salt or Alkali Marsh
Onychomys torridus Ramona	Southern grasshopper mouse	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Grassland, Chamise Chaparral
Odocoileus hemionus	Southern mule deer	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
Felis concolor	Mountain lion	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
Basariscus astutus	Ringtail	7	N	L - 2	Mixed Chaparral, Chamise Chaparral
Buteo lineatus	**Red-shouldered Hawk**	**7**	**N**	**M**	**Riparian, Oak Woodland**

Accipiter cooperi	**Cooper's Hawk**	**7**	**N**	**M**	**Grassland, Riparian, Oak Woodland**
Aquila chrysaetos	**Golden Eagle**	**6**	**N**	**L - 2**	**Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper**
Haliaeetus leucocephalus	**Bald Eagle**	**7**	**N**	**L - 2**	**Lakes and Bays**
Accipter striatus	**Sharp-shinned Hawk**	**7**	**N**	**L - 2**	**Coastal Sage Scrub, Oak Woodland, Mixed Conifer**
Pandion haliaetus	**Osprey**	**7**	**N**	**L - 2**	**Lakes and Bays**
Cathartes aura	**Turkey Vulture**	**7**	**N**	**M**	**Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest**
Ardea herodias	Great Blue Heron	7	N	L - 2	Grassland, Freshwater Marsh, Lakes and Bays
Grus canadensis	Sandhill Crane	7	N	L - 2	Grassland
Oreortyx pictus eremophila	Mountain Quail	7	N	L - 2	Mixed Chaparral, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest
Melanerpes lewis	**Lewis' Woodpecker**	**7**	**N**	**L - 2**	**Oak Woodland, Mixed Conifer**
Sialia mexicana	Western Bluebird	7	Y	H	Riparian, Oak Woodland
Progne subis	**Purple Martin**		**N**	**L - 2**	**Grassland, Riparian, Mixed Conifer**
Vireo vicinior	Gray Vireo	7	N	L - 2	Mixed Chaparral

Dendroica petechia brewersti	Yellow Warbler	7	N	L - 2	Riparian
Junco hyemalis caniceps	Gray-headed Junco	7	N	L- 2	Mixed Conifer
Aimophila ruficeps canescens	**Rufous-crowned Sparrow**	**7**	**N**	**L - 2**	**Coastal Sage Scrub, Chamise Chaparral**
Amphispiza belli belli	**Bell's Sage Sparrow**	**7**	**N**	**L - 2**	**Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral**

APPENDIX E

RESULTS OF PROTOCOL SURVEYS FOR THE QUINO CHECKERSPOT BUTTERFLY

FORENSIC ENTOMOLOGY SERVICES

5434 Redland Place
San Diego, California 92115-2217
Phone/Fax 619.583.0180
[redacted]
Email: Dkfaulkner41@cox.net

3 June 2011

Glen Webber, Executive Director
Freedom Ranch
1777 Buckman Springs Road
Campo, California 91906-2099

RE: Quino Checkerspot Protocol Surveys, 2011
Freedom Ranch, Campo, San Diego County
USFWS Permit No. TE-838743-5

INTRODUCTION

Site assessments and protocol adult surveys for the federally listed Quino Checkerspot Butterfly (QCB), *Euphydryas editha quino*, were initiated on 24 March 2011 and concluded 3 May 2011 on the Freedom Ranch Property in Campo, San Diego County, California. The entire property is about 130 acres, but following the initial assessments, was determined to contain about 60 acres suitable for QCB habitat. This acreage supported numerous adult butterfly nectar sources, open soils in fields and dirt roads, and were near prominent ridgelines and hilltops. No potential larval host plants had previously been recorded from the site, but hosts for the eastern San Diego County populations of QCB are still in question. Parts of the site were surveyed in 2010 for the SDG&E Sunrise Powerlink Project and were negative for QCB. A few miles east of the property on the Campo Indian Reservation there are a number of records for QCB.

Single weekly visits to the site, weather permitting, were taken and with five hours per visit needed to cover the suitable habitats. Time was spent walking the dirt roads and areas opened up for the Powerlink Project, grasslands with exposed soils, and larger openings within the chaparral that were easily accessed. Approximately 10-12 acres were surveyed per hour. Climatic data were recorded along with additional butterfly species encountered. Assisting during a number of surveys was David Shipp, completing his field hours as required by the U.S. Fish and Wildlife Service (USFWS) to obtain his QCB permit.

RESULTS

No Quino Checkerspot Butterflies were recorded during the six protocol survey visits. Adult nectar sources were abundant during the entire QCB flight season and included *Cryptantha*, *Amsinckia*, composites, and numerous other annuals and perennials. No potential QCB larval host plants were seen with the exception of *Cordylanthus* that was sprouting at the end of the season. Even the commonly encountered *Collinsia* species were absent from the site. Table 1 summarizes the weather conditions during each site visit, while Table 2 lists the additional Lepidoptera species encountered.

Table 1. Survey Dates and Weather Conditions, 2011

DATE	TIME	WEATHER °F	SITE
24 March	1000-1600	56/62, 20-30% clouds	Freedom Ranch
26 March	1000-1500	58/63, clear-50%, 0-6mph wind	Freedom Ranch
2 April	1000-1500	74/82, clear-15%, 0-4mph wind	Freedom Ranch
9 April	1000-1500	61/63, 10-20% clouds, 3-8mph wind	Freedom Ranch
16 April	1000-1500	80/89, clear, 0-3mph wind	Freedom Ranch
23 April	0900-1500	66/75, clear, 1-8mph wind	Freedom Ranch
3 May	1000-1500	76/86, clear, 3-10mph wind	Freedom Ranch

Weather conditions were unpredictable for most of the season. Cold weather earlier in March throughout eastern San Diego County delayed or halted the normal flowering season for many annuals. Perennial shrubs, such as sugar bush and ceanothus, were not greatly impacted by the weather this year.

Table 2. Butterfly and Skipper Species

FAMILY	GENUS/SPECIES	COMMON NAME
Papilionidae	*Papilio eurymedon*	Pale swallowtail
Pieridae	*Pieris rapae*	Cabbage white
	Pontia protodice	Checkered white
	Euchloe hyantis	Pearly marble
	Anthocharis sara	Sara orangetip
	Colias eurytheme	Orange sulphur
	C. harfordii	Harford's sulphur
	Nathalis iole	Dainty sulphur
Lycaenidae	*Strymon melinus*	Gray hairstreak
	Callophrys augustinus	Brown elfin
	C. perplexa	Perplexing hairstreak
	Everes amyntula	Western tailed blue
	Glaucopsyche lygdamus	Southern blue
	Celastrina echo	Echo blue
	Plebejus acmon	Acmon blue
Riodinidae	*Apodemia virgulti*	Behr's metalmark
Nymphalidae	*Chlosyne gabbii*	Gabb's checkerspot
	Euphydryas chalcedona	Variable checkerspot
	Vanessa cardui	Painted lady
	V. annabella	West coast lady
	Nymphalis antiopa	Mourning cloak
	N. californica	Tortoiseshell
Hesperiidae	*Erynnis funeralis*	Funereal duskywing
	E. propertius	Propertius duskywing

	Ochlodes agricola	Rural skipper
	Hesperia juba	Juba skipper

Only 26 species of Lepidoptera were recorded during the surveys. Both in diversity and abundance, butterfly numbers were lower than expected for this area. However, this seems to correspond with similar results for other surveys conducted this year, especially in eastern San Diego County.

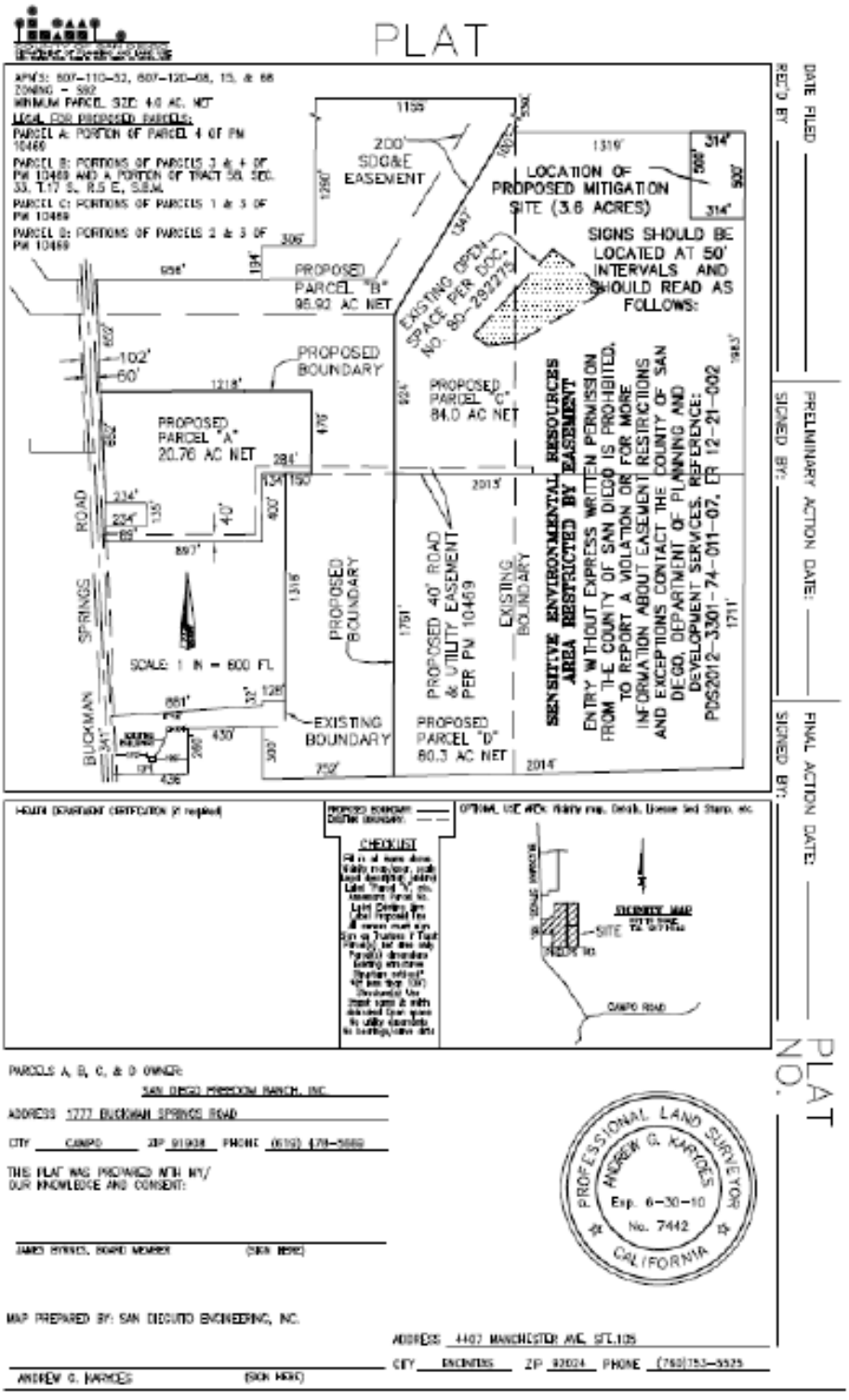
SITE SUMMARY

The habitat surveyed for adult QCB was suitable with open soils, dirt roads, limited rock outcrops, nectar sources, and openings in the chaparral. However, no potential larval host plants were recorded, with the exception of sprouting *Cordylanthus* seen late in the season. Although QCB were seen in eastern San Diego County this spring, the Freedom Ranch property did not result in any sightings.

David K. Faulkner
Entomologist

APPENDIX F

PLAT SHOWING LOCATION OF PROPOSED MITIGATION SITE AND SIGNAGE EXHIBIT


PLAT
APN'S: 607-110-52, 607-120-08, 15, & 66
ZONING - S92
MINIMUM PARCEL SIZE: 4.0 AC. NET
LEGAL FOR PROPOSED PARCELS:
PARCEL A: PORTION OF PARCEL 4 OF PM 10469
PARCEL B: PORTIONS OF PARCELS 3 & 4 OF PM 10469 AND A PORTION OF TRACT 58, SEC. 33, T.17 S., R.5 E., S.B.M.
PARCEL C: PORTIONS OF PARCELS 1 & 3 OF PM 10469
PARCEL D: PORTIONS OF PARCELS 2 & 3 OF PM 10469
200' SDG&E EASEMENT
LOCATION OF PROPOSED MITIGATION SITE (3.6 ACRES)
SIGNS SHOULD BE LOCATED AT 50' INTERVALS AND SHOULD READ AS FOLLOWS:
EXISTING OPEN SPACE PER DOC. NO. 80-282275
PROPOSED PARCEL "B" 98.92 AC NET
PROPOSED BOUNDARY
PROPOSED PARCEL "C" 84.0 AC NET
PROPOSED PARCEL "A" 20.76 AC NET
PROPOSED 40' ROAD & UTILITY EASEMENT PER PM 10469
EXISTING BOUNDARY
PROPOSED PARCEL "D" 80.3 AC NET
SENSITIVE ENVIRONMENTAL RESOURCES AREA RESTRICTED BY EASEMENT
ENTRY WITHOUT EXPRESS WRITTEN PERMISSION FROM THE COUNTY OF SAN DIEGO IS PROHIBITED. TO REPORT A VIOLATION OR FOR MORE INFORMATION ABOUT EASEMENT RESTRICTIONS AND EXCEPTIONS CONTACT THE COUNTY OF SAN DIEGO, DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES. REFERENCE: PDS2012-3301-74-011-07, ER 12-21-002
SCALE: 1 IN = 600 FT.
BUCKMAN SPRINGS ROAD
CAMPO ROAD
SITE
VICINITY MAP
CHECKLIST
PARCELS A, B, C, & D OWNER:
SAN DIEGO MISSION RANCH, INC.
ADDRESS 1777 BUCKMAN SPRINGS ROAD
CITY CAMPO ZIP 91906 PHONE (619) 478-5888
THIS PLAT WAS PREPARED WITH MY/ OUR KNOWLEDGE AND CONSENT:
JAMES HYRNES, BOARD MEMBER (SIGN HERE)
PROFESSIONAL LAND SURVEYOR
ANDREW G. HARKINS
Exp. 6-30-10
No. 7442
CALIFORNIA
MAP PREPARED BY: SAN DIEGUITO ENGINEERING, INC.
ADDRESS 4407 MANCHESTER AVE. STE.105
CITY ENCINITAS ZIP 92024 PHONE (760)753-9525
ANDREW G. HARKINS (SIGN HERE)
DATE FILED
RECD. BY
PRELIMINARY ACTION DATE:
SIGNED BY:
FINAL ACTION DATE:
SIGNED BY:
PLAT NO.

APPENDIX G

PREPARER QUALIFICATIONS

William T. Everett is a research, consulting, and conservation biologist with more than 35 years experience in the San Diego environment and around the world. He has logged more than 14,000 hours of field work, all detailed with field notes. In the 1970's Bill apprenticed in the study of chaparral ecology under Frank Gander, the retired but renown premier California botanist of the 1930s and 40s. Although his specialty is ornithology, Bill has a long-standing interest in all endangered species management and conservation issues. As President then Conservation Chairman of the San Diego Chapter of the Audubon Society in the late 1970s, he gained a keen understanding of the conservation challenges facing a growing Southern California. He subsequently became one of the first Biological Consultants certified by the County of San Diego in the 1980s. Bill is a Fellow of the National Association of Environmental Professionals (NAEP) and subscribes to the NAEP Code of Ethics and Standards of Practice for Environmental Professionals.

Bill Everett has published numerous scientific articles and conducted research in Southern California, Alaska, Antarctica, Baja California, South America, and throughout the tropical Pacific Ocean. In 1977, in recognition of his accomplishments, he was appointed as a Research Associate of the Department of Birds and Mammals of the San Diego Natural History Museum, a position he holds to this day. In 1990 he was elected as a Research Fellow of the Zoological Society of San Diego, and in 1988 was appointed as the Senior Conservation Biologist of the Western Foundation of Vertebrate Zoology. The Royal Geographic Society of London elected Bill as a Fellow in 1996, following his election as a Fellow of the Explorers Club in 1990.

Hired as a biologist for the U.S. Fish and Wildlife Service in 1977, Bill conducted research on endangered Peregrine Falcons in Northern California at a time when their continued existence was questionable. His interest in threatened species led to publication by the Audubon Society in 1979 of his paper entitled "Threatened, Declining and Sensitive Bird Species in San Diego County" (Sketches 36:1-2). This paper contained the first published account of the decline of the California Gnatcatcher.

Beyond the Southern California area, Bill has prepared the seabird impacts sections for the Draft and Final Environmental Impact Statements for Hawaii-based Pelagic Fisheries of the Western Tropical Pacific Ocean (2001), received a National Science Foundation major grant to lead an International Biocomplexity Survey and Expedition to Isla Guadalupe, Baja California, Mexico (2000), led the effort to save North America's most endangered bird species, the San Clemente Loggerhead Shrike (1991-1997), and currently heads up efforts to restore bird populations on Wake Atoll and Christmas Island in the central Pacific.

Bill holds a U.S. Fish and Wildlife Master Bird Banding Permit (#22378) with Endangered Species Authorization, and California Gnatcatcher Survey Authorization Permit # TE-788036. He received his Masters Degree from the University of San Diego in 1991, and completed a Post-Graduate Program at Harvard University's John F. Kennedy School of Government in 1997.

Bill served as a member of the Conservation and Research Committee of the Zoological Society of San Diego since the committee was first established. In 1990, he founded the Endangered Species Recovery Council (www.esrc.org), an international organization of scientists and conservationists dedicated to finding solutions to the problem of species extinctions. He continues as President of the organization.

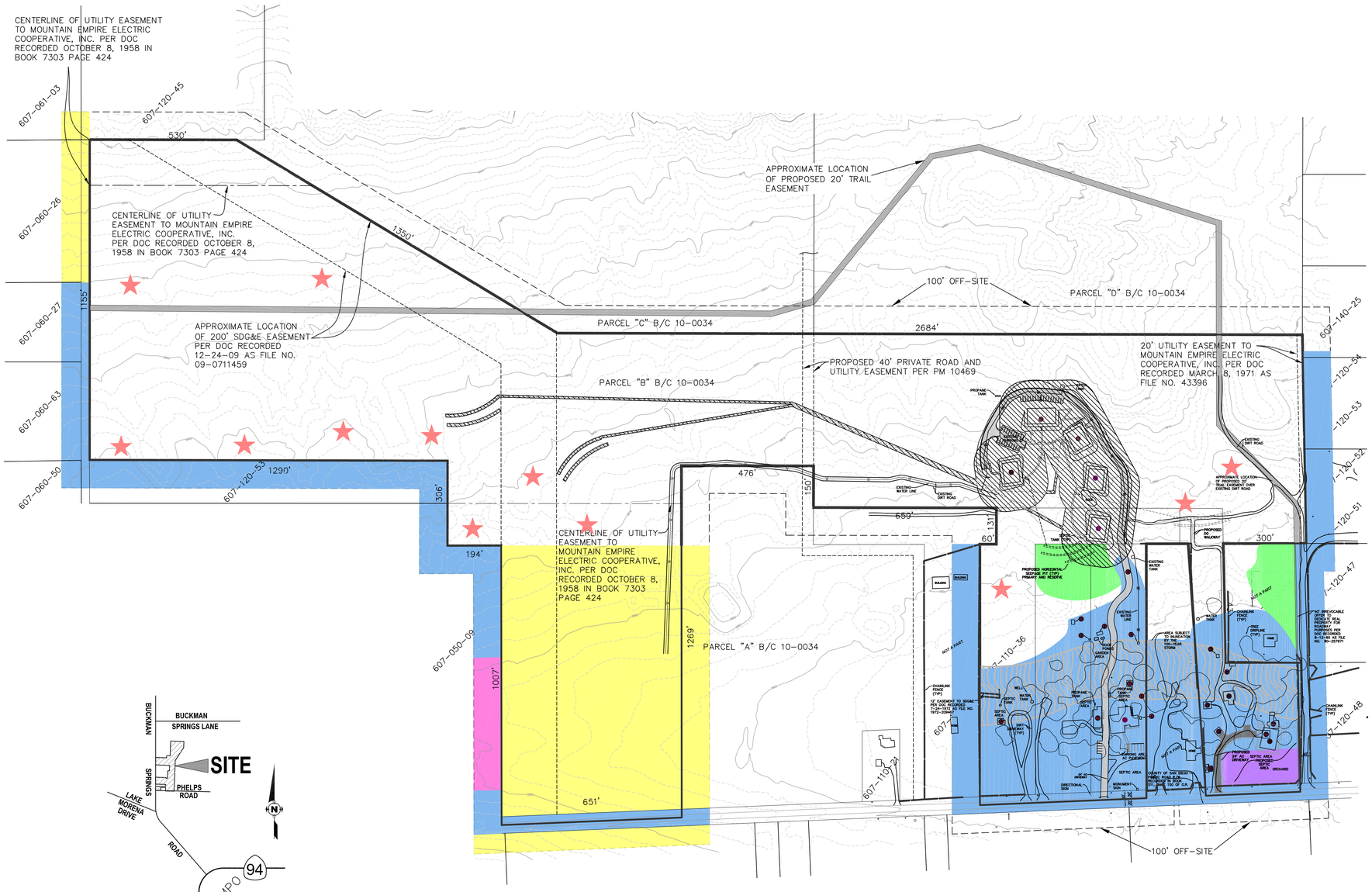
In May 2002 Bill was honored in New York as a first recipient of the Explorers Club "Champions of Wildlife" award.

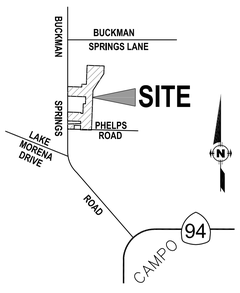
BIOLOGICAL RESOURCES MAP

SCALE 1"= 200'

0 200 400 600 800

SCALE 1"=200'





VICINITY MAP

THOMAS BRO. PAGE 1317-H3

NO SCALE

EXISTING, IMPACTED, AND PRESERVED HABITAT ON THE PROJECT SITE.

PLANT COMMUNITY	ACREAGE ON-SITE	IMPACTED ACREAGE ON-SITE	IMPACTED ACREAGE OFF-SITE	IMPACT NEUTRAL	ACREAGE PRESERVED ON-SITE	TOTAL MITIGATION REQUIRED (Ratio)	ON-SITE MITIGATION	OFF-SITE MITIGATION
SOUTHERN MIXED CHAPARRAL	84.5	6.75	0.49*	0	3.6	3.6 (0.5:1)	3.64	0
DISTURBED HABITAT	1.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NON-NATIVE GRASSLAND	14.4	0	0	0	0	0	0	0
URBAN / DEVELOPED	12.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ORCHARDS AND VINEYARDS	0.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL	112.6	6.75	0.49	0	3.6	3.6	3.6	0

* Impacts associated with proposed 20' trail easement.

SAN DIEGO FREEDOM RANCH, INC.
1777 BUCKMAN SPRINGS ROAD
CAMPO, CA 91906

LEGEND

- SOUTHERN MIXED CHAPARRAL HOLLAND CODE 37120
- URBAN/DEVELOPED HOLLAND CODE 12000
- EUCALYPTUS WOODLAND HOLLAND CODE 79100
- ORCHARD/VINEYARD HOLLAND CODE 18100
- NON-NATIVE GRASSLAND HOLLAND CODE 42000
- DISTURBED HABITAT HOLLAND CODE 11300
- AREA TO BE DISTURBED
- RED STARS INDICATE LOCATIONS OF GROUPS OF STICKY GERAEA (Geraea viscida)
  SEE FIGURE 6 OF BIOLOGICAL RESOURCES REPORT FOR NUMBERS OF INDIVIDUAL PLANTS AT EACH LOCATION

ASSESSOR'S PARCEL NUMBER:

APN'S 607-110-10, 11 & 36, AND PARCEL "B" OF BOUNDARY ADJUSTMENT B/C 10-0034 (AN ASSESSOR PARCEL NUMBER WILL BE ASSIGNED WHEN THE BOUNDARY ADJUSTMENT IS APPROVED). PARCEL "B" IS CURRENTLY COMPRISED OF APN 607-110-52 AND A PORTION OF APN 607-120-68.

BASE MAP PREPARED BY:

WALSH ENGINEERING & SURVEYING, INC.
607 ALDWYCH ROAD, EL CAJON, CA 92020
(619) 588-6747 (619) 792-1232 FAX

BIOLOGICAL RESOURCES MAP PREPARED BY:

12/22/2013

WILLIAM T. EVERETT
EVERETT AND ASSOCIATES
ENVIRONMENTAL CONSULTANTS
POST OFFICE BOX 1085
LA JOLLA, CALIFORNIA 92038
858 456-2990

NOTE:

VEGETATION COMMUNITY MAPPING IS PREPARED USING OVERLAYS OF CURRENT AERIAL PHOTOGRAPHS AND IS VERIFIED ON THE GROUND TO THE GREATEST DEGREE POSSIBLE IN THE ABSENCE OF A SYSTEMATIC LAND SURVEY. ALL VEGETATION AREAS, BOUNDARIES, AND FUEL MODIFICATION ZONE LIMITS ARE ESTIMATES SUBJECT TO FINAL DELINEATION BY A LICENSED PROFESSIONAL LAND SURVEYOR.

BIOLOGICAL RESOURCES MAP – SAN DIEGO FREEDOM RANCH, INC.