

**BIOLOGICAL TECHNICAL REPORT
FOR
KEMERKO TENTATIVE PARCEL MAP**

TPM 20716RPL, ER- 03-14-002

PREPARED FOR:

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1.0 SUMMARY OF FINDINGS

The proposed project is a minor subdivision and residential development of 94.1 gross acres into four parcels plus a remainder parcel. The proposed project also includes a biological open space easement on 79.4 acres. The project is located in the Community of Harbison Canyon, in East San Diego County, south of Interstate 8 (Figure 1). The proposed project is located within the USGS 7.5' Alpine quad, Township 15 South, Range 1 East (Figure 2). The proposed project is located within the Metro-Lakeside-Jamul portion of the Multiple Species Conservation Program (MSCP).

This report provides information regarding existing conditions, compliance with the compliance with the Biological Mitigation Ordinance (BMO), Resource Protection Ordinance (RPO) and performs an impact analysis based on the current site design. This report also identifies mitigation measures that conform with the Biological Mitigation Ordinance and Resource Protection Ordinance therefore reducing any impacts to below a level of significance.

General biological surveys sensitive plant surveys and a focused survey for the Quino checkerspot were performed onsite. The biological resources on-site include three habitat types as defined by the County: coastal sage scrub, southern mixed chaparral (mafic and granitic), and developed habitat. Biological resources that are afforded some level of protection under the Biological Mitigation Ordinance would include both the coastal sage scrub and southern mixed chaparral. The site qualifies as a Biological Core Resource Area (BRCA) in accordance with the BMO.

No state or federally listed plant or animal species were observed on-site. Four sensitive plant species was observed onsite: Engelmann Oak (*Quercus engelmannii*), Rush chaparral-star (*Machaeranthera juncea*), Ashy spike-moss (*Selaginella cinerascens*), and San Diego sunflower (*Viguiera laciniata*) were observed onsite. These are County list D species. One sensitive wildlife species, the San Diego horned lizard (*Phrynosoma coronatum blainvillei*) was observed onsite. Sixteen wildlife species have a high potential to occur onsite, and three have a moderate potential to occur. The species with a high potential to occur onsite include coastal rosy boa, coastal western whiptail, northern red-diamond rattlesnake, San Diego ringneck snake, rufous-crowned sparrow, Bell's sage sparrow, golden eagle, turkey vulture, Dulzura pocket mouse, greater western mastiff bat, ringtail, small-footed myotis, big free-tailed bat, pocketed free-tail bat, southern mule deer, and southern grasshopper mouse. The species with a moderate potential to occur include coast patch-nosed snake, long-legged myotis, and mountain lion.

Impacts to approximately 3.4 acres of mafic southern mixed chaparral, 9.1 acres of coastal sage scrub, and 0.9 acres of granitic southern mixed chaparral habitat will occur as a result of the proposed project. All impacts would be fully mitigated in accordance with the Biological Mitigation Ordinance. Mitigation for impacts to 3.4 acres of mafic southern mixed chaparral will be achieved through the onsite conservation of 6.8 acres of mafic southern mixed chaparral. Mitigation for impacts to 9.1 acres of coastal sage scrub will be achieved through the onsite conservation of 13.65 acres of coastal sage scrub. An additional 58.1 acres are included in the open space easement. Potential impacts to

sensitive animal species observed and with a high and moderate potential to occur onsite will be mitigated by the habitat based mitigation in accordance with the BMO. Implementation of these mitigation measures will reduce impacts to below a level of significance.

2.0 INTRODUCTION

The proposed project is a minor subdivision and residential development of 94.1 gross acres into four parcels plus a remainder parcel. The proposed project also includes a biological open space easement totaling 79.4 acres. The proposed project is for residential land use. As part of the project, residential development including building pads, road, and utilities would be graded and excavated. Off-site improvements will not occur.

The 94-acre project area is located in southern portion San Diego County within the Community of Harbison Canyon in the County of San Diego (Figure 1). It is located east of the City of El Cajon, north of Highway 94, and south of Interstate 8. The proposed subdivision is located just west of Harbison Canyon and north of Francis Drive. The project is located in the northeast quarter of Section 36 in Township 15 South, Range 1 East. The project is limited to the 94-acre proposed project area and includes only a small area off-site improvements in existing roads at the eastern end of the project. The project area is shown on the Alpine USGS 7.5' Quadrangle (Figure 2). The proposed project is located within the Metro-Lakeside-Jamul portion of the Multiple Species Conservation Program (MSCP).

Topography, Soils, Land Use

The project area is located in the southern portion of San Diego County within the foothills and interior valleys of the region. The property includes ridges and a very steep mountain slope trending to the southeast. The project area is located on the western side of Harbison Canyon on the southeastern slope of a larger series of mountains. Elevations range from 1,000 to 1,840 feet above mean sea level.

The soils on the property include Las Posas series, Fallbrook sandy loam, and acid igneous rocks (Bowman 1973). These soils are discussed below:

Las Posas Series

Las Posas series soils consist of well-drained moderately deep stony fine sandy loams that have a clay subsoil. These soils are on uplands and formed in material weathered from basic igneous rocks (Bowman 1973). Las Posas stony fine sandy loam is present in the lower and southern portion of the project area. This soil is strongly sloping to moderately steep and is 26 to 40 inches deep over hard rock. Clay soils and exposed subsoils were noted in portions of this area during the survey.

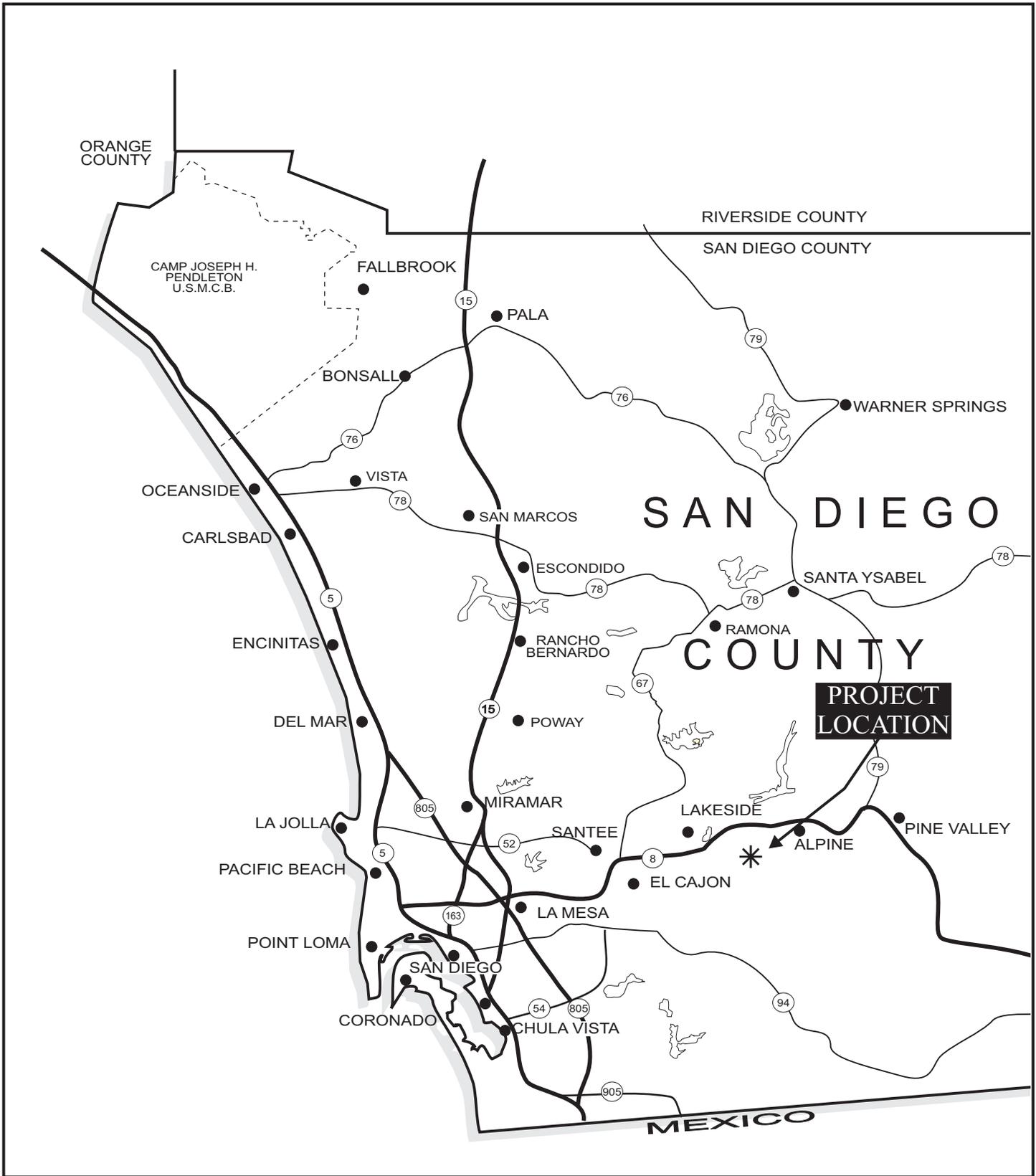
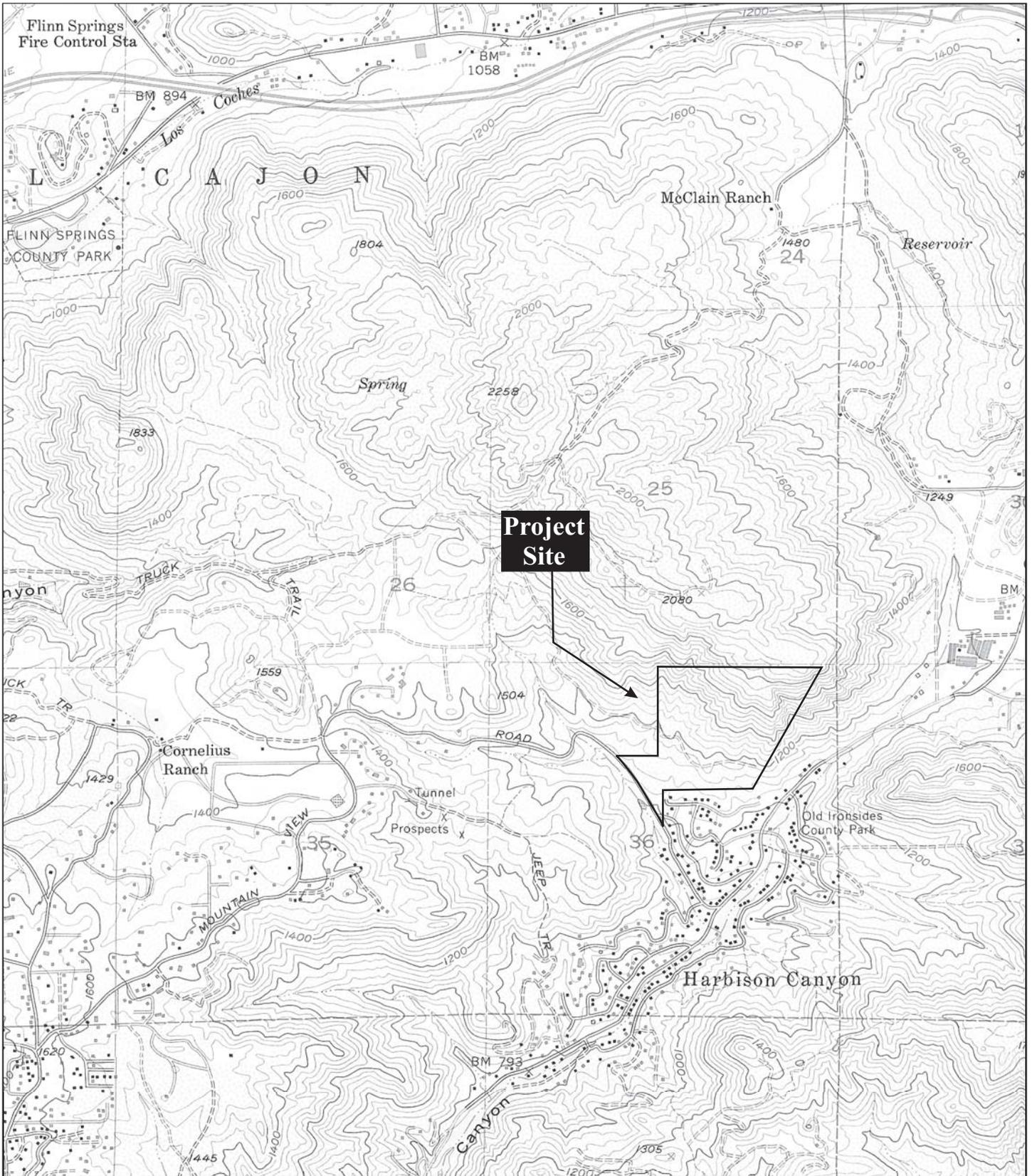


Figure 1
Regional Location Map





SOURCE: USGS 7.5' Alpine Quadrangle

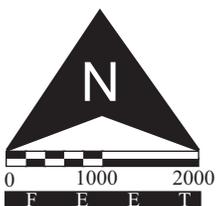
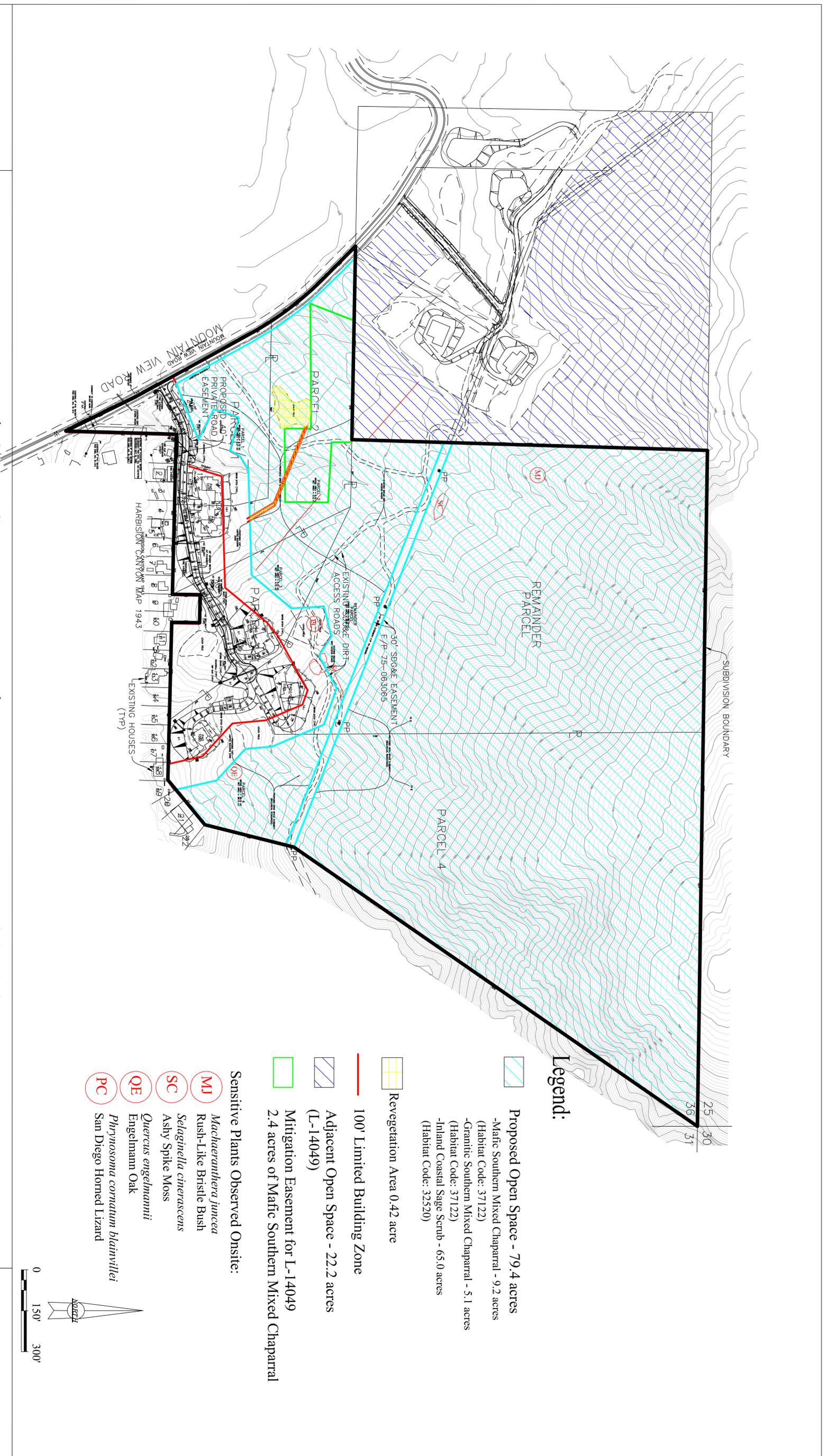


Figure 2
Project Location
Kemerko 94 acres



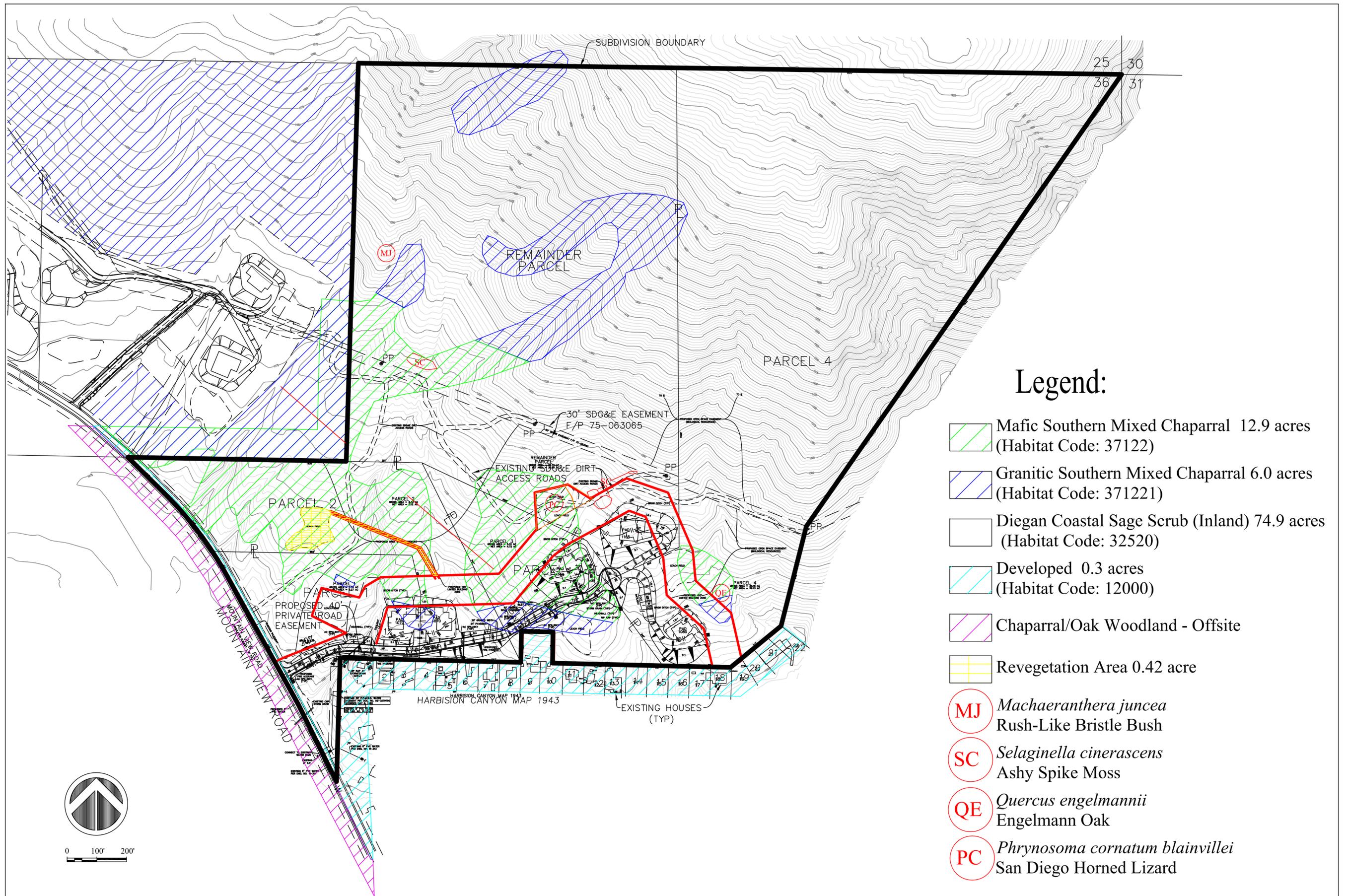
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Biological Consulting

Proposed Open Space - Kemerko Property TPM-20716RPL

June 2008

Figure 4



Legend:

-  Mafic Southern Mixed Chaparral 12.9 acres
(Habitat Code: 37122)
-  Granitic Southern Mixed Chaparral 6.0 acres
(Habitat Code: 371221)
-  Diegan Coastal Sage Scrub (Inland) 74.9 acres
(Habitat Code: 32520)
-  Developed 0.3 acres
(Habitat Code: 12000)
-  Chaparral/Oak Woodland - Offsite
-  Revegetation Area 0.42 acre
-  *Machaeranthera juncea*
Rush-Like Bristle Bush
-  *Selaginella cinerascens*
Ashy Spike Moss
-  *Quercus engelmannii*
Engelmann Oak
-  *Phrynosoma cornatum blainvillei*
San Diego Horned Lizard

Fallbrook Series

The Fallbrook series consist of well-drained, moderately deep to deep sandy loams that formed in material weathered in place from granodiorite. These soils are on uplands and have slopes of 2 to 30 percent. These soils occur on the southern third of the project site (Bowman 1973).

Igneous Rock Land

The steep slopes making up the northern portion of the project area are mapped as acid igneous rock land (Bowman 1973). This is rough steeply sloping broken terrain. Large boulders and granitic rock outcrops cover 50 to 90 percent of the total area. Soil material between these rocks is loam to loamy coarse sand in texture and is very shallow over decomposed granite.

Several small seasonal drainages with associated rock detritus from the adjacent steep slopes pass through the project area. These drainages appear to be largely ephemeral. A larger drainage with a developed riparian corridor is present just south of the project. Harbison Canyon and its associated creek, located approximately 1/4 mile to the east, are a major source of water and riparian resources in the area.

The property is undeveloped but the southern portion of the project area includes several small access roads for an overhead utility line that passes through the project area. Evidence of past percolation trenching is also present.

Regional Setting

The proposed project is located within the Metro-Lakeside-Jamul portion of the Multiple Species Conservation Program (MSCP). The site is located in area of rural residential interspersed with undeveloped lands. The site is mapped as having the full range of habitat values from low to very high. The site is located within a pre-approved mitigation area as a result the site qualifies as a Biological Resource Core Area (BRCA) as defined within Article VI.A.1.a of the Biological Mitigation Ordinance.

3.0 SURVEY METHODOLOGY

The site was surveyed on foot and habitat mapped (Figure 3 – Map Pocket). Mapping was performed following the Biological Resources Mapping Requirements (County 2002). Wildlife species were identified directly by sight or by vocalizations, and indirectly by scat, tracks, or burrows. Field notes were maintained throughout the surveys and species of interest were mapped. Surveys focused on sensitive plant and wildlife species and all species observed were noted. The presence or absence of suitable habitat for sensitive species was also identified. The primary focus of the survey was to document and map the size, location, and general quality of all habitat types and the presence or potential presence of any sensitive resources (plant or wildlife) on-site. In

addition, sensitive plant surveys were performed along with presence /absence surveys for the Quino checkerspot butterfly since both require walking transects. Seven (7) flight survey visits were conducted by Andrew R. Pignolo (AP) (Permit #PRT-840623) in 2004 and six (6) site visits were conducted by Andrew Drummond and Sara Thorne (Permit #TE-134332-0 & Permit #TE-053020-1) in 2007, for the presence of the federally-listed endangered quino checkerspot butterfly (QCB).

Nomenclature for this report conforms to Hickman (1993), for plants, Holland (1986) and Oberbauer (1996) for plant communities and habitat types, American Ornithological Union (AOU 1982) for birds, Jennings (1983) and Stebbins (1985) for reptiles and amphibians, Jones (1992) for mammals, and Powell (1979) for insects.

Table 1						
Surveys performed on the Kemerko Property (TPM 20716)						
Date	Time	Survey	Temperature (°F)	Sky	Wind (mph)	Observers
7/15/03	11:30 – 4:30	General/ Vegetation Mapping	82°	Clear	0-5	AP
7/29/03	8:00- 3:30	General	79°	Clear to Thunder Showers	0-10	AP
8/1/03	8:00- 4:00	General	78°	Clear	0-5	AP
8/6/03	10:30- 11:30	General/ Vegetation Mapping	85°	Clear	0-5	AP
8/17/03	7:00 – 10:30	Direct Wildlife Survey	72°-82°	Clear	0-5	RC
3/10/04	12:00 to 4:30	Quino Sensitive Plants	83°	Clear	0-8	AP
3/17/04	12:00 to 4:30	Quino Sensitive Plants	85°	Clear	0-7	AP
3/24/04	12:00 to 4:30	Quino Sensitive Plants	71°	Partial sun	0-2	AP
3/31/04	12:00 to 4:30	Quino Sensitive Plants	76°	Clear	0-4	AP
4/7/04	12:00 to 4:30	Quino Sensitive Plants	73°	Clear	0-4	AP
4/14/04	12:30 to 5:00	Quino Sensitive Plants	78°	Clear	0-4	AP

Table 1						
Surveys performed on the Kemerko Property (TPM 20716)						
Date	Time	Survey	Temperature (°F)	Sky	Wind (mph)	Observers
4/21/04	12:00 to 4:30	Quino Sensitive Plants	74°	Clear	0-4	AP
3/23/07	13:00 - 16:30	Focused Quino	71°-67°	Clear	0-5	AD
3/30/07	14:00- 17:00	Focused Quino	80°-75°	Clear	2-6	AD
4/06/07	12:30- 15:20	Focused Quino	71°- 70°	Clear	2-5	ST
4/10/07	10:00- 12:55	Focused Quino	69°-74°	Clear	0-1	AD
4/18/07	10:00- 14:00	Focused Quino	63°-70°	Clear	3-9	ST
4/27/07	9:15- 13:15	Focused Quino	78°-83°	Clear	0-3	ST

RC= Robin Church, AP=Andrew Pigniolo, AD = Andrew Drummond, ST = Sara Thorne

4.0 RESULTS

The following discussion summarizes the existing biological resources on-site including habitats, vegetation and wildlife. Habitats are depicted on Figure 3 (Map Pocket).

4.1 Vegetation

Habitat descriptions are based on the County of San Diego's Biological Mapping Requirements (County 2002) and Terrestrial Vegetation Communities in San Diego County based in Holland's Descriptions (Oberbauer 1996), however, it has been shown that habitats on the project sites in San Diego County are often not pristine and rarely fit into one description. Therefore the best-fit definition based on the County's current descriptions and dominant plant species has been applied. Three habitat types occur within the project site, southern mixed chaparral (mafic and granitic), inland Diegan coastal sage scrub and developed habitat. The vegetation habitats are depicted in Figure 3 (Map Pocket). A complete list of plant species observed on-site is included in Appendix A.

Mafic Southern Mixed Chaparral (Habitat Code: 37122)

Mafic southern mixed chaparral covers approximately 12.9 acres of the site where it occurs on the Los Posas soils. The acreage for this habitat has changed due to updated soils information that was overlaid on the project site plan. The mafic southern mixed chaparral onsite consists of moderate-statured stands (between 1.5 and 3 meters) of a variety chaparral species. This chaparral forms a mosaic with coastal sage scrub and exposed rock outcrops within the project area. On the steep slopes of the project the

southern mixed chaparral tends to be located on the more shaded western-facing slopes where soil moisture retention is slightly higher. Chamise (*Adenostoma fasciculatum*) and scrub oak (*Quercus berberidifolia*) are dominant but several other species are common: mission manzanita (*Xylococcus bicolor*), holly-leaf cherry (*Prunus ilicifolia*), birch-leaved mountain-mahogany (*Cercocarpus betuloides*), woolly-leaved ceanothus (*Ceanothus tomentosus*), Hairy-leaf redberry (*Rhamnus pilosa*), Eastwood's manzanita (*Arctostaphylos glandulosa*), and honeysuckle (*Lonicera supspicata*).

Several drought deciduous shrubs including flat-top buckwheat (*Eriogonum fasciculatum*), Spice bush (*Cneoridium dumosum*), and San Diego sunflower (*Viguiera laciniata*) are mixed into the chaparral community. In addition, several small individual Engelmann oak occur within the southern mixed chaparral. Large rock outcrops also occur within the chaparral onsite. Several dirt roads occur within this habitat onsite.

Granitic Southern Mixed Chaparral (Habitat Code: 37121)

Approximately 6.0 acres of granitic southern mixed chaparral occurs onsite. This habitat is essentially the same floristically as the mafic southern mixed chaparral.

Diegan Coastal Sage Scrub (Inland) (Habitat Code: 32520)

Drier southeast facing slopes, areas of shallow soil over bedrock, and areas of Las Posas soils were dominated by Diegan coastal sage scrub vegetation. This covers approximately 74.9 acres of the project area. This vegetation is dominated by low, soft-woody subshrubs (to ca. 1 m high) that are largely drought deciduous. Dominant species include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), Laurel sumac (*Malosma laurina*), Our Lord's candle (*Yucca whipplei*), Spice bush (*Cneoridium dumosum*), and San Diego sunflower (*Viguiera laciniata*). In areas of Las Posas soils near the southern portion of the project, open patches within the Diegan coastal sage scrub dominated by annuals such as fascicled tarweed (*Hemizonia fasciculata*) are also present. Several dirt roads occur within this habitat onsite.

Rock Outcrops

Rock outcrops are considered a unique microhabitat by the County. Numerous rock outcrops occur onsite, particularly in the steeper northern portions of the project. Rock outcrops add diversity to the vegetation communities by providing a discrete ecological niche for species not found elsewhere in the surrounding habitat. This niche includes shallow-soil spike-moss (*Selaginella* sp.) and lichen microhabitats. Rock outcrops also provide cover and potential nesting cavities for several wildlife species. Some reptile species are attracted to the sun-warmed surfaces of the rocks, and birds use boulders as perches and vantage points.

Developed (Habitat Code: 12000)

Approximately 0.3 acres of developed habitat occurs onsite in association with Mountain View Road.

4.2 Wildlife

A total of twenty-two wildlife species were identified onsite. These included seven invertebrate species, one reptile species, twelve bird species, and two mammal species. A complete list of wildlife species observed on-site is included as Appendix B.

The only reptile species observed onsite was the San Diego horned lizard (*Phrynosoma coronatum blainvillei*), although others probably occur. Birds that would typically occur in the habitats onsite were observed including Anna's hummingbird (*Calypte anna*), California thrasher (*Toxostoma redivivum*), rufous-sided towhee (*Pipilo erythrophthalmus*), and lesser goldfinch (*Carduelis psaltria*). Mammals detected onsite include coyote (*Canis latrans*) and desert cottontail (*Sylilagus audubonii*).

4.3 Sensitive Resources

Sensitive or special interest plant and wildlife species and habitats are those which are considered rare, threatened, or endangered within the state or region by local, state, or federal resource conservation agencies. Sensitive habitats, as identified by these same groups, are those which generally support plant or wildlife species considered sensitive by these resource protection agencies or groups. Sensitive species and habitats are so called because of their limited distribution, restricted habitat requirements, particular susceptibility to human disturbance, degradation due to development or invasion by non-native species, or a combination of all of these factors.

In addition to RPO and the MSCP the following were used in the determination of sensitive biological resources: U.S. Fish and Wildlife Service (USFWS) (USFWS 2001); California Department of Fish and Game (CDFG) (CDFG 1999, 2000 and 2001); and California Native Plant Society (CNPS 2001). An explanation of the sensitivity codes used in this report are included in Appendix E.

Applicable Resource Conservation Plans and Ordinances

In San Diego County, regulations have been adopted which define and provide protection to certain types of sensitive biological resources as follows:

Resource Protection Ordinance (RPO)

The purpose of the RPO is to protect sensitive resources and prevent their degradation and loss. The sensitive resources protected by the RPO include wetlands, wetland buffer areas, and sensitive habitat lands, which are defined as follows:

"Wetland" areas include lands which are transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or where the land is covered by water. All lands having one or more of the following attributes are "wetlands":

- a) At least periodically, the land supports predominantly hydrophytes (plants whose habitat is water or very wet places);
- b) The substratum is predominantly undrained hydric soil; or
- c) The substratum is nonsoil and is saturated with water or covered by water at some time during the growing season of each year.

"Wetland buffer" areas include lands which provide a buffer area of an appropriate size to protect the environmental and functional habitat values of the wetland, or which are integrally important in supporting the full range of the wetland and adjacent upland biological community.

"Sensitive habitat lands" include those which support unique vegetation communities, or the habitats of rare or endangered species or sub-species of animals or plants, including the area which is necessary to support a viable population of any of these species in perpetuity, or which is critical to the proper functioning of a balanced natural ecosystem or which serves as a functioning corridor.

Multiple Species Conservation Program (MSCP) and Biological Mitigation Ordinance (BMO)

In response to the continued loss of sensitive biological resources, especially coastal sage scrub, the County adopted the MSCP in 1997. The proposed project must conform to the MSCP Subarea Plan, and the project must demonstrate that it has incorporated avoidance measures to meet the preserve design requirements of the Plan. To implement the MSCP Subarea Plan, the County enacted the BMO. Habitats are classified in different "Tier" levels that require different levels of mitigation. Application of the BMO to individual projects is the method by which the County will achieve the conservation goals set forth in the MSCP. Mitigation requirements for different habitat types are based on the location of both the impact and the proposed mitigation. Impacts within core habitat areas or pre-approved mitigation areas require higher mitigation ratios. Conversely, more credit is allowed for preservation or mitigation within core habitat areas or pre-approved mitigation areas.

4.3.1 Sensitive Habitats

Mafic and granitic southern mixed chaparral as well as coastal sage scrub would be considered sensitive habitats in accordance with the Biological Mitigation Ordinance. Each of these is discussed below.

Mafic Southern Mixed Chaparral (Tier I)

Mafic southern mixed chaparral is limited to the distribution of Los Posas and Boomer soils within the County and as a result is a resource of limited distribution. Mafic southern mixed chaparral is a Tier I habitat.

Granitic Southern Mixed Chaparral (Tier III)

Although still a relatively plentiful habitat, granitic southern mixed chaparral is considered a sensitive habitat within the BMO. This habitat is classified as Tier III habitat.

Diegan Coastal Sage Scrub (Tier II)

Diegan coastal sage scrub is considered a sensitive habitat within the BMO. This is a Tier II habitat.

4.3.2 Sensitive Plants

Sensitive or special interest plant species are those which are considered rare, threatened, or endangered within the state or region by local, state, or federal resource conservation agencies. Sensitive plant species are so called because of their limited distribution, restricted habitat requirements, or particular susceptibility to human disturbance, or a combination of these factors. Sources used for the determination of sensitive plant species include: County list of Sensitive Plant Species (2001), CDFG (1999) and the California Native Plant Society Electronic Inventory (CNPS 2001).

Sensitive plant surveys were performed during the general biological surveys and focused Quino checkerspot butterfly surveys. Since both require walking intensive transects all plants observed during the surveys were noted. No rare, threatened, or endangered plant species were observed on-site. Four sensitive plant species was observed onsite: Engelmann Oak (*Quercus engelmannii*), Rush chaparral-star (*Machaeranthera juncea*), Ashy spike-moss (*Selaginella cinerascens*), and San Diego sunflower (*Viguiera laciniata*). These species are discussed below. Forty-four sensitive plant species are known from the area. Sensitive plant species with the potential to occur on-site are discussed in Appendix C.

Quercus engelmannii (Engelmann oak)

Quercus engelmannii, a semi-deciduous oak with a distinctive twisted growth pattern and bluish-green leaves, is a County list D and CNPS List 4 species (limited distribution) with a R-E-D ranking of 1-2-2. This species can occur in chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland habitats; the center of its distribution is cismontane San Diego County. Engelmann oaks are sensitive to land management practices such as fire, and their small, disjunct woodlands are highly susceptible to extirpation. Individual trees typically live from 50 to 80 years; however, a

few trees in every woodland may be over 150 years old. Approximately three young individual *Q. engelmannii* oaks occur within the southern portion of the site within the southern mixed chaparral community (Figure 3 – Map Pocket).

Machaeranthera juncea (Rush chaparral-star)

Machaeranthera juncea is a perennial herb with yellow flowers on elongated branches. It is a County list D and CNPS List 4 species (limited distribution) with a R-E-D ranking of 1-1-1. This species can occur in chaparral and coastal scrub habitats; the northwestern extent of its distribution is cismontane San Diego County. Approximately 10 individual *M. juncea* plants occur within the middle portion of the site (Figure 3 – Map Pocket).

Selaginella cinerascens (Ashy spike-moss)

Selaginella cinerascens is a prostrate rhizomatous perennial herb on County list D as uncommon and of limited distribution. This species was considered but rejected from CNPS listing. *Selaginella cinerascens* can occur in chaparral and coastal scrub habitats and its distribution extends into northern Baja California. This species is sensitive to encroachment of non-native annuals and associated changes in the bioturbation regime. Approximately 50 square meters of area in the central portion of the project is covered by this species. It is within the southern mixed chaparral and Diegan coastal sage scrub communities (Figure 3 – Map Pocket).

Viguiera laciniata (San Diego sunflower)

Viguiera laciniata, is a low shrub that occurs in chaparral and coastal scrub habitat. It is a County list D and CNPS List 4 species (limited distribution) with a R-E-D ranking of 1-2-1. *Viguiera laciniata* is locally common but of limited distribution due to development in coastal and foot hill areas where it occurs. This species was distributed throughout the project area with varying density through both the southern mixed chaparral community and Diegan coastal sage scrub community. Average density was roughly one plant per 10 square meters. Several thousand individual plants are probably present within the project area.

Narrow Endemic Plant Species

No narrow endemic plant species were observed onsite. Lakeside ceanothus (*Ceanothus cyaneus*), Palmer's goldenbush (*Ericameria palmeri* ssp. *palmeri*), Gander's pitcher sage (*Lepichinia ganderi*), Dunn's mariposa lily (*Calochortus dunnii*) and Dehesa nolina (*Nolina interrata*), all narrow endemics within the MSCP, were determined to have a low potential to occur onsite since they would have been observable during the surveys.

4.3.3 Sensitive Animals

Sensitive or special interest wildlife species and habitats are those which are considered rare, threatened, or endangered within the state or region by local, state, or federal

resource conservation agencies. Sensitive species are so called because of their limited distribution, restricted habitat requirements, or particular susceptibility to human disturbance, or a combination of these factors. Sources used for the determination of sensitive biological resources include: USFWS (USFWS 2001), CDFG (CDFG 2000 and 2001). Additional species receive federal protection under the Bald Eagle Protection Act and the Migratory Bird Treaty Act and Convention for the Protection of Migratory Birds and Animals.

The CDFG also lists species as threatened or endangered, or candidates for listing as threatened or endangered. Lower sensitivity animals may be listed as “species of special concern” (CDFG 2000). The CDFG further classifies some species under the following categories: “fully protected”, “protected furbearer,” “harvest species,” “protected amphibian,” and “protected reptile.” The designation “protected” indicates that a species may to be taken or possessed except under special permit from the CDFG; “fully protected” indicates that a species can be taken only for scientific purposes. The designation “harvest species” indicates that take of the species is controlled by the state government.

No threatened or endangered animal species were observed on-site. One sensitive animal species, the San Diego horned lizard (*Phrynosoma coronatum blainvillei*), was observed onsite. This species is discussed below.

San Diego horned lizard (*Phrynosoma coronatum blainvillei*)

The San Diego horned lizard is a regional subspecies of the widespread coast horned lizard, classified as a federal Species of Concern. This spiny, wide-bodied lizard occurs primarily in coastal sage scrub communities. It was a common species in San Diego County until about 10 years ago (Hix 1990). Factors that have contributed to its decline include loss of habitat, over collecting, and the introduction of exotic ants. In some places, especially adjacent to urban areas, introduced ants have displaced native harvester ants (*Pogonomyrmex* spp.) upon which the lizard feeds exclusively. One individual was observed along the existing dirt road within the southern portion of the property (Figure 3 – Map Pocket).

Thirty-six sensitive species with the potential to occur onsite are discussed in Appendix D. Of the thirty-six sensitive species with the potential to occur onsite, sixteen have a high potential to occur onsite, and three have a moderate potential to occur. The species with a high potential to occur onsite include coastal rosy boa (*Charina trivirgata roseofusca*), coastal western whiptail (*Cnemidophorus tigris multiscultatus*), northern red-diamond rattlesnake (*Crotalus ruber ruber*), San Diego ringneck snake (*Diadophis punctatus similes*), rufous-crowned sparrow (*Amiophila ruficeps canescens*), Bell’s sage sparrow (*Amphispiza belli belli*), golden eagle (*Aquila chrysaetos*), turkey vulture (*Cathartes aura*), Dulzura pocket mouse (*Chaetodipus californicus femoralis*), greater western mastiff bat (*Eumops perotis californicus*), ringtail (*Bassariscus astutus*), small-footed myotis (*Myotis leibii*), big free-tailed bat (*Nyctinomops macrotis*), pocketed free-tail bat (*Nyctinomops femorosaccus*), southern mule deer (*Odocoileus hemionus*), and southern grasshopper mouse (*Onychomys torridus Ramona*).

The species with a moderate potential to occur include coast patch-nosed snake (*Salvadora hexalepis virgultea*), long-legged myotis (*Myotis evotis*), and mountain lion (*Felis concolor*).

All of these species with a high and moderate potential to occur onsite except the Quino checkerspot, California gnatcatcher, mountain lion and southern mule deer are federal and/or state species of concern. Of these species the Quino checkerspot is listed as federally endangered, the California gnatcatcher is listed as federally threatened, the mountain lion is a protected species by CDFG and the southern mule deer is a County sensitive species. In addition to the two federally listed species with a high and moderate potential to occur onsite, one additional listed species, the arroyo southwestern toad (*Bufo micropscaphus californicus*) has a low potential to occur onsite. Each of these species is discussed below.

California Gnatcatcher (*Polioptila californica*)

Status: Federally listed as Threatened, State Species of Concern

The California gnatcatcher (CAGN), a Federally Threatened species and California Species of Concern, is a small gray songbird that is a resident of scrub-dominated communities in southwestern California from the Los Angeles Basin through Baja California, Mexico. California gnatcatcher populations have declined due to extensive loss of Diegan coastal sage scrub habitat to urban and agricultural uses.

Due to the fact that the entire site burned and suitable habitat for a minimum of 2 miles burned during the Cedar Fire, at the current time the site has a low potential to support the California gnatcatcher.

Quino Checkerspot Butterfly (*Euphydryas editha quino*)

Status: Federally listed as Endangered.

The United States Fish and Wildlife Service (USFWS) officially listed the quino checkerspot butterfly (*Euphydryas editha quino*) as “endangered” on January 16, 1997 (USFWS 1997). For this reason the quino checkerspot is protected under the provisions of the Endangered Species Act of 1973, as amended. As such, “take” of this species, either directly or indirectly, is prohibited by law. In order to help land owners in preventing an unknowing “take” of this species, the USFWS has required that land owners have a protocol survey conducted on their land prior to project implementation in order to determine the presence or absence of this species.

The quino checkerspot butterfly is one of several subspecies of *Euphydryas editha*. It is a member of the brush-footed butterfly family (Nymphalidae). The quino checkerspot is associated with a variety of habitats which include clay soil meadows, grassland, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodland and semi-desert (Ballmer *et al.* 2000). Despite association with a wide range of habitat, distribution of this species is restricted to areas which support the larval host plants. The quino’s primary

host plant is *Plantago erecta*. Other possible larval host plant species include *Plantago patagonica*, *Antirrhinum coulterianum*, *Castilleja exserta* and/or *Cordylanthus rigidus* (USFWS 2002) as well as *Collinsia* and possibly other Scrophulariaceae (Ballmer *et al.* 2000). Generally the flight season for the quino checkerspot occurs from late February through April, peaking in March or April.

A focused survey for the federally endangered quino checkerspot butterfly (QCB) was conducted onsite by USFWS permitted biologist Andrew Pigniolo (permit # TE-053020-0) in 2004 and by Andrew Drummond (Permit #TE-134332-0) and Sara Thorne (Permit #TE-053020-1) in 2007. A complete copy of the most recent report is included as Appendix F and summarized here. QCB was not observed onsite during the survey. The area surveyed was open and included a single population of *Plantago erecta* comparable in size and density to occupied QCB sites elsewhere in San Diego County (*e.g.*, Marron Valley, Jamul Mtn., and Otay Mesa). At a landscape scale, the Kemerko property is different, from other QCB occupied sites in San Diego County. Although the Kemerko property is mostly south-facing with moderate slopes, there are no prominent hilltops or ridges on the site. It is unlikely that the site could support a sustained population of QCB. Given this negative survey, the negative survey performed in 2004 by Laguna Mountain Environmental, and the current conditions onsite, the probability of QCB occupying the Kemerko property is low.

Arroyo southwestern toad (*Bufo micrposcaphus californicus*)

Status: Federally listed as Endangered, State Species of Special Concern

The arroyo southwestern toad was listed as federally endangered in December 1994. This species is a small toad (2 to 3 inches), light greenish gray or tan with warty skin and dark spots. This species is restricted to rivers that have shallow, gravelly pools adjacent to sandy terraces. Breeding occurs on large streams with persistent water from March to mid-June. Eggs are deposited and larvae develop in shallow pools with minimal current and little or no emergent vegetation and with sand or pea gravel substrate overlain with flocculent silt. After metamorphosis (June or July), the juvenile toads remain on the bordering gravel bars until the pool no longer persists. Juvenile and adults forage for insects on sandy stream terraces that have nearly complete closure of cottonwoods, oaks, or willows and almost no grass and herbaceous cover at ground level. Adult toads excavate shallow burrows on the terraces where they shelter during the day when the surface is damp or during longer intervals during the dry season. (Federal Register 1994) The drainage on site is ephemeral, lacks appropriate vegetative composition, lacks gravel bars and sandy terraces, and as a result does not provide suitable habitat for any of the life stages of the arroyo southwestern toad.

The drainage south of Mountain View Road has a moderate potential to support arroyo toad, however it is unlikely that if arroyo toad occur south of Mountain View that they would cross Mountain View Road for upland aestivation due to the steepness of the slope. The closest known population of arroyo southwestern toad is Jamul Creek,

approximately 8 miles to the south. There is a low potential for this species to occur onsite.

5.0 REGULATORY REQUIREMENTS PERTAINING TO WETLANDS

The limits of jurisdiction for each agency is also discussed below.

Army Corps of Engineers (ACOE) – Clean Water Act

Pursuant to Section 404 of the Clean Water Act, any on-site wetlands and waters of the U.S. would be subject to permit provisions regulating activities within their boundaries. These provisions are enforced by the ACOE, as well as the EPA, with technical input from the USFWS. Three factors are considered in the designation of wetlands: the presence of hydrophytic vegetation, hydric soils, and site hydrology. According to the latest ACOE methodology, all three wetland indicators must be present to make a jurisdictional ruling (Environmental Laboratory 1987). Areas indicated as wetlands by all three factors during the rainy season may lack the indicators of hydrology and/or vegetation during the dry season, or the vegetation may have been altered or removed through human disturbance. Such areas may still be regarded as wetlands by resource agencies.

In addition, the ACOE has jurisdiction over “waters of the United States”. Waters of the United States are defined in 33 CFR part 328 (referred to as “waters”). The lateral limits of the jurisdiction of waters maybe divided into three categories, territorial seas, tidal waters and non-tidal waters. 33 CFR part 328.3 provides the definition of waters of the United States as follows:

- (a) The term *waters of the United States* means
 - (1) all waters which are currently used, or were used in the past, or maybe susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
 - (2) All interstate waters including interstate wetlands;
 - (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce, including any such waters:
 - (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
 - (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

- (iii) Which are or could be used for industrial purpose by industries in interstate commerce;
- (4) All impoundments of waters otherwise defined as waters of the United States under the definition;
- (5) Tributaries of waters identified in (a) (1) through (4) of this section;
- (6) The territorial seas
- (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1) through (6) of this section.

Waste treatment systems, including treatments of ponds or lagoons designed to meet the requirements if CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.

- (8) Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding the CWA remains with the Environmental Protection Agency (EPA).
- (b) The term *wetlands* means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.
- (c) The term *adjacent* means bordering, contiguous or neighboring. Wetlands separated from other waters of the United States by man made dikes or barriers, natural river berms, beach dunes and the like are "adjacent wetlands."
- (d) The term *high tide line* means the line of intersection of the land with the water's surface to the maximum height reached by a rising tide.....
- (e) The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.
- (f) The term *tidal waters* means those waters that rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun....

The limits of jurisdiction in non-tidal waters is defined in 30 CFR part 328.4 (c). When non-tidal waters occur in the absence of adjacent wetlands, the jurisdiction extends to ordinary high water mark. Based on the above definition of waters of the United States and limits of jurisdiction, no Waters of the U.S. occur onsite. There are several ephemeral drainages onsite, however they do not meet the definition of Waters of the United States.

California Department of Fish and Game – Streambed Alteration Program

The CDFG regulates wetlands under Section 1601/1603 of the California Fish and Game Code through their Streambed Alteration Agreement Program. Any alteration of any stream course within the State of California requires a Streambed Alteration Agreement from the CDFG. Section 1601 pertains to public projects where section 1603 applies to private projects and specifically states: “It is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream or lake designated by the department, or use any material from the streambeds, without first notifying the department of such activity...”

A stream is defined by the California Code of Regulations (14 CCR 1.72) as a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic wildlife. This includes watercourses having a surface or subsurface flow that supports or has supported riparian habitat.

The limits of CDFG jurisdiction are defined in the code (Section 1601/1603) as the bed, channel, or bank of any river, stream or lake designated by the department in which there is at any time existing fish or wildlife resource or from which these resources derive benefit

The ephemeral drainages onsite may qualify as CDFG jurisdictional wetlands.

County of San Diego Resource Protection Ordinance

The County of San Diego Resource Protection Ordinance defines wetlands under Article II, item 16. as: “All lands which are transitional between terrestrial and aquatic where the water table is usually at or near the surface or where the land is covered by water. All lands having one or more of the following attributes are ‘wetlands’”:

- a. At least periodically, the land supports predominately hydrophytes;
- b. The substratum is predominantly undrained hydric soils; or
- c. The substratum is nonsoil and is saturated with water or covered by water at some time during the growing season each year.

No Resource Protection Ordinance wetlands occur onsite. Ephemeral drainages occur onsite however they do not support predominately hydrophytes, they do not contain hydric soils, and the substrate is not non-soil that is saturated or covered with water at some time during the growing season. As a result they do not meet the criteria for Resource Protection Ordinance Wetlands.

6.0 ANTICIPATED PROJECT IMPACTS

Impacts on biological resources can be categorized as either direct, indirect, or cumulative. Direct impacts are a result of project implementation, and generally include: the loss of vegetation and sensitive habitats and populations; the introduction of non-native species which may out-compete and displace native vegetation; activity-related to mortalities of wildlife; loss of foraging, nesting or burrowing habitat; destruction of breeding habitats; and fragmentation of wildlife corridors. Indirect impacts occur as a result of the increase in human encroachment in the natural environment and include: off-road vehicle use which impacts sensitive plant or animal species; harassment and or collection of wildlife species; intrusion and wildlife mortality by domestic pets in open space areas following residential development; increased noise and lighting; and inadvertent increased wildlife mortalities along roads. Cumulative impacts occur as a result of on-going direct and indirect impacts for unrelated or fragmented projects overall. Cumulative impacts are assessed on a regional basis and determined the overall effect of numerous activities on a sensitive resource over a larger area.

Generally, there are three levels of adverse impacts associated with biological resources: significant, locally important, and not significant. The County of San Diego adopted the regional Multiple Species Conservation Program and Subarea Plan in 1997. To implement the Subarea Plan the County enacted the Biological Mitigation Ordinance. These documents identify biological resources and, indirectly, thresholds for significance. Habitats are classified in different tier levels which require different levels of mitigation. Habitats within Tiers I to III, require mitigation under the Biological Mitigation Ordinance and therefore are considered significant.

These levels of impacts were applied to the project site and are used below in the discussion of specific potential impacts. Figure 3 (Map Pocket) details the proposed impact areas. Figure 4 (Map Pocket) details the proposed open space.

6.1 Proposed Project and Potential Impacts

The proposed project is a minor subdivision and residential development of 94.1 gross acres into four parcels plus a remainder parcel. The proposed project also includes a biological open space easement totaling 79.4 acres. The proposed project is for residential land use. As part of the project, residential development including building pads, road, and utilities would be graded and excavated. Off-site improvements will not occur. For the purposes of this analysis, the entire habitat outside of the proposed open space onsite is assumed to be impacted. In addition, the leach fields for Parcels 1, 2, and the remainder parcel will occur within the proposed open space. These areas are included in the impact analysis as impacted. A utility easement occurs across the remainder parcel but is not included within the open space (Figure 4). For the purposes of this impact analysis, the utility easement is considered impact neutral since it is not proposed to be impacted at this time. The project is located within the Metro-Lakeside-Jamul portion of the MSCP and is qualifies as a BRCA in accordance with the Biological Mitigation Ordinance.

Table 2 identifies the potential impacts as a result of the proposed project. The mitigation ratios are based on the premise that both the impact and mitigation sites are BRCA's. Different ratios would apply if the mitigation land was not located within a BRCA.

Table 2 Habitat Acreages and Potential Impacts					
Habitat	Total Acres	Direct Impacts (Grading and Fire Clearing)	Impact* Neutral	Mitigation Ratio	Onsite Conservation (acres)
Mafic Southern Mixed Chaparral (Tier I)	12.9	3.4	0.3	2:1	9.2
Granitic Southern Mixed Chaparral (Tier III)	6.0	0.9	0	1:1	5.1
Diegan Coastal Sage Scrub (Tier II)	74.9	9.1	0.8	1.5:1	65.0
Developed Habitat (Tier IV)	0.3	0.3	0	NA	0
Total	94.1	13.7	1.1		79.4

6.2 Significance Of Direct Impacts

The following section discusses the significance of potential impacts to the resources onsite. Impacts will occur to mafic southern mixed chaparral, Diegan coastal sage scrub and developed.

Mafic Southern Mixed Chaparral (Tier I)

Impacts to approximately 3.4 acres of mafic southern mixed chaparral would be considered significant. These impacts would require mitigation at a 2:1 ratio in accordance with the BMO.

Diegan Coastal Sage Scrub (Tier II)

Impacts to approximately 9.1 acres of Diegan coastal sage scrub would be considered significant. These impacts would require mitigation at a 1.5:1 ratio in accordance with the BMO.

Granitic Southern Mixed Chaparral (Tier III)

Impacts to approximately 0.9 acres of mafic southern mixed chaparral would be considered significant. These impacts would require mitigation at a 1:1 ratio in accordance with the BMO.

Developed Habitat (Tier IV)

The developed portion of the site will continue to be used as it is currently being used. No significant impacts will occur.

Sensitive Plant Species

Four sensitive plant species was observed onsite: Engelmann Oak, Rush chaparral-star, Ashy spike-moss, and San Diego sunflower were observed onsite. These are all County List D Species. Impacts may occur to Engelmann oak, and San Diego sunflower as a result of the proposed project. These impacts would be considered significant.

Sensitive Wildlife Species

One sensitive wildlife species, the San Diego horned lizard, was observed onsite. Potential impacts to sensitive wildlife species observed and with a high and moderate potential to occur onsite would be considered significant.

Pre-approved Mitigation Area

The proposed project is located within a Pre-Approved Mitigation Area. The project has been redesigned and now allows for an open space corridor of a minimum of 950 feet in width when an open space easement is placed on this and the adjoining parcel to the west (Figure 5). In order to provide this corridor the proposed leach field on Parcels 1 and 3 will be revegetated with southern mixed chaparral once the installation is complete (Figure 4). This allows the project to comply with Design Criteria for Linkages and Corridors, item F, attachment H of the BMO.

6.3 Cumulative Impacts

A cumulative impact analysis was performed to determine if the proposed project, a minor subdivision and residential development of 94.1 gross acres, would result in cumulatively considerable impacts when viewed in connection with the effects of past projects, other current projects and probable future projects in conformance with Section 15130(a) of the State CEQA Guidelines.

For the purposes of this analysis the geographic limits of the study area were limited to projects within the Southern Valley ecoregion as mapped on the “San Diego County Ecoregion Map for Species Distribution Model” available from DPLU. The ecoregion was then further redefined to remove projects occurring in the Otay area due to the geographic distance, lack of mafic soils and low potential to support inland coastal sage scrub.

A project list was obtained using KIVA and reviewing discretionary projects. After identifying discretion projects, the files were reviewed to determine if they would also have impacts on mafic southern mixed chaparral and inland coastal sage scrub, the two sensitive biological resources that the proposed project will impact. The complete analysis is included as Appendix G and summarized here.

The primary concern with regard to cumulative impacts was to the viability of the Deheasa-El Capitan wildlife linkage. As discussed in Section 6.2 Pre-approved Mitigation Area, the project is working to provide a wildlife linkage in conjunction with the adjacent parcel map. The site is located within the same linkage as the proposed Crestlake Estates project. The draft EIR for the Crestlake Estates project was reviewed to determine the impacts of that project on the linkage. The draft EIR states in Section 4.3.2.1.f(1) that the impacts to the Deheasa-El Capitan linkage will be less than significant. Additionally, the DEIR references an Ogden 1992 wildlife corridor study that functional corridors for mule deer range from 175 feet to 6000 feet in width. It concludes that ideal corridors for species up to mule deer size are approximately 500 feet in width and have buffers of around 250 feet in width on each side.

The project will not contribute to significant cumulative biological impacts as a result of the proposed mitigation for the project and the assumed mitigation (through conformance with the BMO) for the other projects considered. The goal of the MSCP is to prevent significant cumulative biological impacts and to provide for a viable preserve system that will contribute to the long term survival of the covered species.

7.0 PROPOSED MITIGATION

Under CEQA, mitigation is required for all significant biological impacts (i.e. impacts within highly constrained areas). In addition, the CDFG 1600 and the ACOE 404 permit process generally require mitigation for the loss of wetland resources. The following mitigation measures are recommendations to offset significant impacts. Recommendations are also given to offset locally important biological impacts. Although mitigation measures are not often required for locally important impacts, local jurisdictions often implement these measures to minimize cumulative impacts within the region.

According to Appendix G of the State CEQA guidelines, the proposed project would have a potentially significant impact to onsite biological resources if it would:

- Have a substantial adverse affect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Resource Protection Ordinance

Under the RPO (discussed above), development of wetlands, wetland buffer areas, and sensitive habitat lands is restricted, as follows:

Within *wetlands*, the RPO restricts uses to aquaculture, scientific research, educational or recreational uses, or wetland restoration, and imposes further limitations which include, in particular, that grading, filling and construction is not permitted.

Within *wetland buffer areas*, the RPO allows uses permitted in wetland areas, plus access paths and other improvements necessary to protect adjacent wetlands.

Biological Mitigation Ordinance

The BMO requires that mitigation be provided, in accordance with ratios which take into account factors such as: (1) What "Tier" the impacted habitat falls into; (2) whether the impacted resources are located within a Biological Resources Core Area (BRCA) and (3) whether the mitigation land would be located onsite or offsite. As discussed in Section 2.0, Regional Setting, the project site qualifies as a BRCA.

Under CEQA, mitigation is required for all significant biological impacts. Mitigation, per resource, is discussed below with corresponding level of significance after mitigation.

7.1 Mitigation for Direct Impacts

Mitigation for direct impacts to each habitat is detailed in Table 3 and is discussed below.

Table 3 Mitigation Analysis					
Habitat	Total Acres	Open Space	Impact Neutral (Utility Easement)	Mitigation	Excess
Mafic Southern Mixed Chaparral (Tier I)	12.9	9.2	0.3	6.8	2.4*
Granitic Southern Mixed Chaparral (Tier III)	6.0	5.1	0	0.9	4.2
Diegan Coastal Sage Scrub (Tier II)	74.9	65.0	0.8	13.65	51.5
Developed Habitat (Tier IV)	0.3	0	0	NA	NA
Total	94.1	79.4	1.1		

*an excess of 2.4 acres of mafic southern mixed chaparral will be used for mitigation for the adjacent project to the west (L-14049) (Figure 4)

Mafic Southern Mixed Chaparral (Tier I)

Approximately 3.4 acres of this habitat will be impacted as a result of the proposed project. Mitigation for this impact will be the onsite conservation of 6.8 acres of mafic southern mixed chaparral. The implementation of this mitigation will reduce the impacts to below a level of significance.

Diegan Coastal Sage Scrub (Tier II)

Approximately 9.1 acres of this habitat will be impacted as a result of the proposed project. Mitigation for this impact will be the onsite conservation of 13.65 acres of coastal sage scrub. The implementation of this mitigation will reduce the impacts to below a level of significance.

Granitic Southern Mixed Chaparral (Tier III)

Impacts to approximately 0.9 acres of mafic southern mixed chaparral will be impacted as a result of the proposed project. Mitigation for this impact will be the onsite conservation of 0.9 acres of granitic southern mixed chaparral within the biological open space easement.

Sensitive Plant and Wildlife Species

Four sensitive plant species and one sensitive animal species were observed onsite. No rush chaparral-star or ashy spike moss are proposed to be removed as a result of the proposed project. Potential impacts to sensitive plant and animal species observed and with a high and moderate potential to occur onsite will be mitigated by the habitat based mitigation in accordance with the BMO.

7.2 Mitigation for Cumulative Impacts

The project will mitigate in conformance with the BMO. The goal of the MSCP is to prevent significant cumulative biological impacts and to provide for a viable preserve system that will contribute to the long-term survival of the covered species. However, the BMO allows for up-tiering of habitat proposed for mitigation which could still result in a significant cumulative impact to mafic southern mixed chaparral. In order to avoid contributing to significant cumulative impact to mafic southern mixed chaparral, the project will mitigate by preserving 6.8 acres of this habitat onsite. Impacts to coastal sage scrub will be onsite and “in-kind” in conformance with the BMO. Additional preservation of 2.4 acres of mafic southern mixed chaparral, 4.2 acres of granitic southern mixed chaparral, and 51.5 acres of Diegan coastal sage scrub habitats are for compliance with the Biological Mitigation Ordinance to conserve the PAMA linkage. As a result of the proposed mitigation the project will not contribute to a significant cumulative impact to mafic southern mixed chaparral, granitic southern mixed chaparral, or inland coastal sage scrub habitats.

With implementation of the proposed mitigation measures, impacts to biological resources will be mitigated to below a level of significance.

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9.0 CERTIFICATION

This report has been prepared by Robin Church, County Certified Biologist and Andrew Pigniolo.

APPENDIX A
PLANTS OBSERVED

APPENDIX A
PLANT SPECIES OBSERVED ON THE KEMERKO PROPERTY (TPM 20716)

Family Name	Species Name ♦	Common Name	Habitat
AGAVACEAE	<i>Yucca whipplei</i>	Our Lord's candle	SMC, CSS
ANACARDIACEAE	<i>Malosma laurina</i>	Laurel sumac	SMC, CSS
	<i>Rhus ovata</i>	Sugar bush	CSS
	<i>Toxicodendron diversilobum</i>	Poison oak	CSS
APIACEAE	<i>Apiastrum angustifolium</i>	Mock parsley	SMC
	<i>Daucus pusillus</i>	Rattlesnake weed	SMC
ASCLEPIADACEAE	<i>Sarcostemma</i> sp.	Milkvine	CSS
ASTERACEAE	<i>Acourtia microcephala</i>	sacapellote	SMC
	<i>Artemisia californica</i>	California sagebrush	SMC, CSS
	<i>Baccharis sarothroides</i>	Broom baccharis	SMC, CSS
	<i>Calycadenia tenella</i>	Three-spot	SMC, CSS
	<i>Centaurea melitensis</i> ♦	Star-thistle	SMC, CSS
	<i>Chaenactis artemisiaefolia</i> ♦	White pincusion	SMC, CSS
	<i>Chaenactis</i> sp.	Pincusion	SMC
	<i>Conyza bonariensis</i> ♦	Flax-leaf fleabane	SMC
	<i>Conyza canadensis</i> ♦	Horseweed	SMC, CSS
	<i>Erigeron foliosus</i>	Fleabane	SMC
	<i>Eriophyllum confertiflorum</i>	Golden yarrow	SMC
	<i>Filago californica</i>	California filago	SMC, CSS
	<i>Gnaphalium bicolor</i>	Bicolor cudweed	CSS
	<i>Gnaphalium californicum</i>	California everlasting	CSS
	<i>Gnaphalium</i> sp.	Everlasting	SMC
	<i>Gutierrezia sarothrae</i>	San Joaquin matchweed	SMC, CSS
	<i>Hazardia squarrosus</i>	Sawtooth goldenbush	SMC, CSS
	<i>Hedynois cretica</i> ♦	Crete hedynois	SMC, CSS
	<i>Helianthus gracilentus</i>	Slender sunflower	SMC
	<i>Hemizonia fasciculata</i>	Fascicled tarweed	SMC, CSS
<i>Lactuca serriola</i> ♦	Prickly lettuce	SMC	
<i>Machaeranthera juncea</i>	Rush chaparral-star	SMC	
<i>Microseris douglasii</i>	Douglas' microseris	SMC, CSS	
<i>Porophyllum gracile</i>	Odora	SMC, CSS	
<i>Sonchus oleraceus</i> ♦	Common sow-thistle	SMC, CSS	
<i>Stephanomeria virigata</i>	Twiggy wreath plant	SMC	
<i>Stylocline gnaphalioides</i>	Everlasting neststraw	SMC, CSS	
<i>Viguiera laciniata</i>	San Diego sunflower	SMC, CSS	
BORAGINACEAE	<i>Amsinckia</i> sp.	Fiddleneck	SMC, CSS
	<i>Cryptantha</i> sp.	Cryptantha	SMC, CSS
	<i>Plagiobothrys</i> sp.	Popcornflower	SMC, CSS
BRASSICACEAE	<i>Brassica nigra</i> ♦	Black mustard	SMC, CSS
	<i>Lepidium</i> sp. ♦	Peppergrass	SMC, CSS
	<i>Raphanus sativa</i> ♦	Wild radish	CSS
CAMPANULACEAE	<i>Triodanis perfoliata</i>	Small venus-looking-glass	SMC
CAPRIFOLIACEAE	<i>Lonicera suspicata</i>	Chaparral honeysuckle	SMC
	<i>Sambucus mexicana</i>	Mexican elderberry	CSS
CARYOPHYLLACEAE	<i>Silene gallica</i> ♦	Windmill pink	SMC, CSS
	<i>Silene multinervia</i>	Many-nerve catchfly	SMC, CSS
	<i>Silene laciniata</i>	Indian pink	CSS
CHENOPODIACEAE	<i>Salsola tragus</i> ♦	Russian thistle	CSS

APPENDIX A
PLANT SPECIES OBSERVED ON THE KEMERKO PROPERTY (TPM 20716)

Family Name	Species Name ♦	Common Name	Habitat
CISTACEAE	<i>Helianthemum scoparium</i>	Rock rose	SMC, CSS
CONVOLVULACEAE	<i>Calystegia macrostegia</i>	Morning glory, bindweed	SMC
	<i>Cuscuta californica</i>	Witch's hair	SMC, CSS
	<i>Cuscuta ceanothi</i>	Canyon dodder	SMC
CRASSULACEAE	<i>Crassula connata</i>		SMC, CSS
	<i>Dudleya edulis</i>	Ladies-fingers	CSS
	<i>Dudleya pulverulenta</i>	Chalk-lettuce	CSS
CUCURBITACEAE	<i>Marah macrocarpus</i>	Wild cucumber	SMC
ERICACEAE	<i>Arctostaphylos glandulosa</i>	Eastwood manzanita	SMC
	<i>Xylococcus bicolor</i>	Mission manzanita	SMC
EUPHORBIACEAE	<i>Acalypha californica</i>	California copperleaf	CSS
	<i>Chamaesyce</i> sp.	Spurge	SMC, CSS
FABACEAE	<i>Lathyrus</i> sp.	Pea	SMC
	<i>Lotus</i> sp.	Lotus	SMC
	<i>Lotus scoparius</i>	Deerweed	SMC, CSS
	<i>Lupinus bicolor</i>	Dove lupine	SMC
	<i>Lupinus hirsutissimus</i>	Stinging lupine	CSS
	<i>Vicia ludoviciana</i>	Deer pea vetch	CSS
FAGACEAE	<i>Quercus berberidifolia</i>	Scrub oak	SMC
	<i>Quercus engelmannii</i>	Engelman oak	SMC
GERANIACEAE	<i>Erodium botrys</i> ♦	Long-beak filaree	SMC, CSS
HYDROPHYLLACEAE	<i>Emmenanthe pendiflora</i>	Whispering bells	CSS
	<i>Phacelia cicutaria</i>	Caterpillar phacelia	SMC, CSS
	<i>Phacelia parryi</i>	Parry's phacelia	SMC
LAMIACEAE	<i>Salvia apiana</i>	White sage	SMC
	<i>Salvia columbariae</i>	Chia	SMC, CSS
	<i>Salvia mellifera</i>	Black sage	CSS
	<i>Salvia mellifera x apiana</i>	Sage	CSS
LILIACEAE	<i>Calochortus</i> sp.	Mariposa lily	SMC
	<i>Cholorogalum parviflorum</i>	Small-flower soap-plant	SMC, CSS
	<i>Dichellostemma capitatum</i> ssp. <i>pauciflorum</i>	Blue dicks	SMC
NYCTAGINACEAE	<i>Mirabilis californica</i>	Wishbone bush	CSS
ONAGRACEAE	<i>Camissonia californica</i>	Mustard evening primrose	SMC, CSS
	<i>Camissonia hirtella</i>	Field suncup	SMC, CSS
PAEONIACEAE	<i>Paeonia californica</i>	California peony	CSS
PAPAVERACEAE	<i>Eschscholzia</i> sp.	Poppy	CSS
PLANTAGINACEAE	<i>Plantago</i> sp.	Plantain	SMC, CSS
POACEAE	<i>Avena barbata</i> ♦	Slender oat	CSS
	<i>Bromus diandrus</i> var. <i>gussonei</i> ♦	Common or Gusson ripgut grass	SMC, CSS
	<i>Bromus mollis</i> ♦	Soft chess	SMC, CSS
	<i>Bromus rubens</i> ♦	Foxtail chess	SMC, CSS
	<i>Gastridium ventricosum</i>	Nitgrass	SMC
	<i>Lamarckia aurea</i> ♦	Goldentop	SMC, CSS
	<i>Melica frutescens</i>	Tall melic	CSS
	<i>Melica imperfecta</i>	Coast range melic	SMC, CSS
	<i>Muhlenbergia microsperma</i>	Littleseed muhly	SMC, CSS
	<i>Stipa coronata</i>	Needlegrass	SMC, CSS

APPENDIX A
PLANT SPECIES OBSERVED ON THE KEMERKO PROPERTY (TPM 20716)

Family Name	Species Name ♦	Common Name	Habitat
	<i>Stipa lepida</i>	Foothill needlegrass	SMC, CSS
	<i>Vulpia hirsute</i> ♦	Foxtail fescue	SMC, CSS
POLEMONIACEAE	<i>Eriastrum sapphirinum</i>	Wolly-star	SMC, CSS
	<i>Navarretia</i> sp.	Navarretia	SMC, CSS
POLYGONACEAE	<i>Chorizanthe fimbriata</i>	Fringed Turkish rugging	SMC, CSS
	<i>Chorizanthe</i> sp.	Turkish rugging	CSS
	<i>Eriogonum fasciculatum</i>	California buckwheat	SMC, CSS
	<i>Pterostegia drymarioides</i>	California threadstem	SMC, CSS
POLYPODIACEAE	<i>Cheilanthes</i> sp.	Lip-fern	SMC
	<i>Pellaea mucronata</i>	Birdsfoot fern	SMC, CSS
PRIMULACEAE	<i>Anagallis arvensis</i> ♦	Scarlet pimpernel	SMC, CSS
RHAMNACEAE	<i>Ceanothus tomentosus</i>	California lilac	SMC
	<i>Rhamnus crocea</i>	Spiny redberry	SMC, CSS
	<i>Rhamnus pilosa</i>	Hairy-leaf redberry	SMC
ROSACEAE	<i>Adenostoma fasciculatum</i>	Chamise	SMC
	<i>Cercocarpus betuloides</i>	Birchleaf mountain mahogany	SMC
	<i>Heteromeles arbutifolia</i>	Toyon	CSS
	<i>Prunus ilicifolia</i>	Holly-leaf cherry	SMC
RUBIACEAE	<i>Galium angustifolium</i>	Narrow-leaf bedstraw	SMC
	<i>Galium aparine</i> ♦	Common bedstraw	SMC
	<i>Galium porrigens</i>	Oval-leaf bedstraw	SMC
RUTACEAE	<i>Cneoridium dumosum</i>	Spice bush	SMC, CSS
SCROPHULARIACEAE	<i>Antirrhinum coulterianum</i>	White snapdragon	CSS
	<i>Antirrhinum nuttallianum</i>	Nuttall's snapdragon	SMC, CSS
	<i>Cordylanthus filifolius</i>	Thread-leaf birdsbeak	SMC, CSS
	<i>Diplacus aurantiacus australis</i>	San Diego monkey flower	SMC
	<i>Keckiella antirrhinoides</i>	Yellow bushpenstemon	CSS
	<i>Keckiella cordifolia</i>	Heartleaf bushpenstemon	SMC
	<i>Linaria</i> sp.	Toadflax	SMC
	<i>Mimulus</i> sp.	Monkey flower	SMC
SELAGINELLACEAE	<i>Selaginella bigelovii</i>	Bigelow's mossfern	SMC
	<i>Selaginella cinerascens</i>	Ashy spike-moss	SMC, CSS
SOLANACEAE	<i>Physalis</i> sp.	Ground-cherry	CSS
	<i>Solanum americanum</i> ♦	White nightshade	CSS
	<i>Solanum</i> sp.	Nightshade	CSS

♦ = Non-native Plant Species

SMC= Southern Mixed Chaparral

CSS= Coastal sage scrub

APPENDIX B

WILDLIFE SPECIES OBSERVED

APPENDIX B		
WILDLIFE SPECIES OBSERVED ON THE KEMERKO PROPERTY (TPM 20176)		
Common Name	Scientific Name	# Observed
INVERTEBRATES		
Alfalfa butterfly	<i>Colias eurytheme</i>	2
Behr's metalmark	<i>Apodemia mormo cirgulti</i>	6
Dragonfly	Suborder <i>Anisoptera</i>	2
Fly	Family <i>Muscidae</i>	Many
Marine Blue	<i>Leptotes marina</i>	3
Red ant	<i>Formica</i> sp.	Many
Tarantula hawk	Superfamily <i>Ichneumonoidea</i>	1
REPTILES		
San Diego horned lizard*	<i>Phrynosoma coronatum</i> <i>blainvillei</i>	1
BIRDS		
Anna's hummingbird	<i>Calypte anna</i>	2
Bewick's wren	<i>Thryomanes bewickii</i>	4
Bushtit	<i>Psaltriparus minimus</i>	10
California quail	<i>Callipepla californica</i>	6
California thrasher	<i>Toxostoma redivivum</i>	2
California towhee	<i>Pipilo crissalis</i>	5
Common raven	<i>Corvus corax</i>	4
Lesser goldfinch	<i>Carduelis psaltria</i>	6
Pacific slope flycatcher	<i>Epidonax difficilis</i>	4
Rufous-sided towhee	<i>Pipilo erythrophthalmus</i>	8
Scrub jay	<i>Aphelocoma coerulescens</i>	2
Wrentit	<i>Chamea fasciata</i>	6
MAMMALS		
Coyote	<i>Canis latrans clepticus</i>	scat
Desert cottontail	<i>Sylvilagus audubonii</i>	4
* SENSITIVE SPECIES		

APPENDIX C

**SENSITIVE PLANT SPECIES
WITH THE POTENTIAL TO OCCUR**

APPENDIX C
SENSITIVE SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO THE
KEMERKO PROPERTY (TPM 20716)

Species	Growth form/Bloom Period	CNPS	R-E-D	State	Federal	Potential to Occur Onsite
<i>ACANTHOMINTHA ILICIFOLIA</i> "San Diego thorn-mint"	Annual herb April - June	1B	2-3-2	CE	FT	Moderate potential to occur. This species would have been past blooming but still observable and was not identified onsite. Areas of clay soils were carefully examined for this species.
<i>ARCTOSTAPHYLOS OTAYENSIS</i> <i>Otay Manzanita</i>	Shrub January - March	1B	3-2-3	None	None	Low potential to occur. This species would have been observable and was not identified onsite.
<i>ASTRAGALUS DEANEI</i> "Dean's milk-vetch"	Perennial herb February - May	1B	3-3-3	None	SOC	Low potential to occur. This species would have been observable and was not identified onsite.
<i>ASTRAGALUS OOCARPUS</i> "San Diego milk vetch"	Perennial herb February - May	1B	3-2-3	None	None	Low potential to occur. This species would have been observable and was not identified onsite.
<i>BACCHARIS VANESSE</i> "Encinitas baccharis"	Shrub (deciduous) August - November	1B	2-3-3	CE	FT	Low potential to occur. This species would have been observable and was not identified onsite.
<i>BRODIAEA ORCUTTII</i> "Orcutt's brodiaea"	Perennial herb (bulbiferous) May - July	1B	1-3-2	None	SOC	Low potential to occur. This species would have been observable and was not identified onsite.
<i>CALOCHORTUS DUNNII</i> "Dunn's mariposa lily"	Perennial herb (bulbiferous) April - June	1B	2-2-2	CR	SOC	Moderate potential to occur onsite, it would be more likely to occur in a more mafic environment.
<i>CEANOETHUS CYANEUS</i> "Lakeside ceanothus"	Shrub (evergreen) April - June	1B	3-2-2	None	SOC	Low potential to occur. This species would have been observable and was not identified onsite.
<i>CHAMAEBATIA AUSTRALIS</i> "southern mountain misery"	Shrub (evergreen) November - May	4	1-2-1	None	None	Low potential to occur. This species would have been observable and was not identified onsite.
<i>CHORIZANTHE LEPTOTHECA</i> "Peninsular spineflower"	Annual herb May - August	4	1-2-2	None	None	Low potential to occur. This species would have been observable and was not identified onsite.
<i>CHORIZANTHE POLYGONOIDES</i> <i>VAR. LONGISPINA</i> "long-spined spineflower"	Annual herb April - July	1B	2-2-2	None	SOC	Low potential to occur. This species would have been observable and was not identified onsite.
<i>CLARKIA DELICATA</i> "delicate clarkia"	Annual herb April - June	1B	2-2-2	None	None	Low potential, although the survey was completed after the bloom period, no varieties of Clarkia were observed onsite.
<i>COMAROSTAPHYLIS</i> <i>DIVERSIFOLIA</i> <i>SSP. DIVERSIFOLIA</i> "summer holly"	Shrub (evergreen) April - June	1B	2-2-2	None	SOC	Low potential to occur. This species would have been observable and was not identified onsite.
<i>DUDLEYA VARIEGATA</i> "variegated dudleya"	Perennial herb May - June	1B	2-2-2	None	SOC	Moderate potential to occur onsite, it would be more likely to occur in a more more developed clay soil environment.
<i>GILIA CARUFOLIA</i> "caraway-leaved gilia"	Annual herb May - August	4	1-1-1	None	None	Low potential to occur. This species would have been observable and was not identified onsite.
<i>GITHOPSIS DIFFUSA</i> <i>SSP. FILICAULIS</i> "Mission Canyon bluecup"	Annual herb April - June	3	2-3-3	None	None	Moderate potential to occur. This species would have been past blooming but dried specimens of Githopsis were not observed.

APPENDIX C
SENSITIVE SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO THE
KEMERKO PROPERTY (TPM 20716)

Species	Growth form/Bloom Period	CNPS	R-E-D	State	Federal	Potential to Occur Onsite
<i>HARPOGONELLA PALMERI</i> "Palmer's grapplinghook"	Annual herb March - May	4	1-2-1	None	None	Moderate potential to occur. This species would have been past blooming but still observable and was not identified onsite. Areas of clay soils were carefully examined for this species.
<i>HORKELLA TRUNCATA</i> "Ramona horkelia"	Perennial herb May - June	1B	3-1-2	None	None	Low potential to occur. This species would have been past blooming but still observable and was not identified onsite.
<i>LATHYRUS SPLENDENS</i> "pride-of-California"	Perennial herb March - June	4	1-1-2	None	None	Moderate, an unidentifiable species of Lathyrus was observed onsite.
<i>LEPECHINIA GANDERI</i> "Gander's pitcher sage"	Shrub June - July	1B	3-1-2	None	SOC	Low potential to occur. This species would have been observable and was not identified onsite.
<i>LOTUS CRASSIFOLIUS VAR. OTAYENSIS</i> "Otay Mountain lotus"	Perennial herb May - August	1B	3-3-2	None	SOC	Low potential to occur. This species would have been past blooming but still observable and was not identified onsite.
<i>MONARDELLA HYPOLEUCA SSP. LANATA</i> "felt-leaved monardella"	Perennial herb (rhizomatous) June - August	1B	2-2-2	None	None	Low potential to occur. This species would have been observable and was not identified onsite.
<i>MUILLA CLEVELANDII</i> "San Diego goldenstar"	Perennial herb May	1B	2-3-2	None	None	Low potential to occur. This species would have been past blooming but still observable and was not identified onsite.
<i>MYOSURUS MINIMUS SSP. APUS</i> "little mousetail"	Annual herb March - June	3	2-3-2	None	SOC	Low potential to occur. No appropriate habitat onsite.
<i>NOLINA INTERRATA</i> "Dehesa nolina"	Perennial herb June - July	1B	3-3-2	CE	SOC	Low potential to occur. This species would have been observable and was not identified onsite.
<i>PIPERIA COOPERI</i> "chaparral rein orchid"	Perennial herb March - June	4	1-2-2	None	None	Moderate potential to occur onsite, appropriate habitat onsite.
<i>PIPERIA LEPTOPETALA</i> "narrow-petaled rein orchid"	Perennial herb May - July	4	1-1-3	None	None	Low potential to occur. This species would have been observable and was not identified onsite.
<i>POLYGALA CORNUTA VAR. FISHIAE</i> "Fish's milkwort"	Shrub (deciduous) May - August	4	1-1-2	None	None	Low potential to occur. This species would have been observable and was not identified onsite.
<i>QUERCUS CEDROSENSIS</i> "Cedros Island oak"	Tree (evergreen) April - May	2	3-2-1	None	None	Low potential to occur. This species would have been observable and was not identified onsite.
<i>RIBES CANTHARIFORME</i> "Moreno currant"	Shrub (deciduous) February - April	1B	3-1-3	None	SOC	Low potential to occur. This species would have been observable and was not identified onsite.
<i>SATUREJA CHANDLERI</i> "San Miguel savory"	Perennial herb March - July	1B	2-2-2	None	None	Low potential to occur. This species would have been observable and was not identified onsite.
<i>SENECIO GANDERI</i> "Gander's ragwort"	Perennial herb April - May	1B	3-2-3	CR	SOC	Moderate potential to occur onsite, it would be more likely to occur in a more mafic environment.
<i>TETRACOCCLUS DIOICUS</i> "Parry's tetracoccus"	Shrub (deciduous) April - May	1B	3-2-2	None	SOC	Low potential to occur. This species would have been observable and was not identified onsite.

APPENDIX D

**SENSITIVE WILDLIFE SPECIES
WITH THE POTENTIAL TO OCCUR**

APPENDIX D
SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO THE
KEMERKO PROPERTY (TPM 20716)

Common Name	Scientific name	Federal/ State Status	Habitat	Potential On-Site
INSECTS				
Quino Checkerspot	<i>Euphydryas editha quino</i>	FE/SOC	open shrub habitats, primary host plant is <i>Plantago erecta</i>	Moderate potential to occur, some open coastal sage scrub onsite.
Hermes copper	<i>Lycaena hermes</i>	SOC/CSC	Coastal sage scrub, mixed chaparral and chamise chaparral; 0-3000ft.	Moderate potential, host plant, <i>Rhamnus crocea</i> occurs onsite.
AMPHIBIANS				
Arroyo southwestern toad	<i>Bufo microscaphus californicus</i>	FE/CSC	Semi-arid regions near washes or intermittent streams. Habitats used include valley-foothill and desert riparian as well as a variety of more arid habitats including desert wash, palm oasis, and Joshua tree, mixed chaparral and sagebrush; 500-3000ft. Nocturnal.	Low, no appropriate intermittent streams occur onsite.
Western spadefoot toad	<i>Scaphiopus hammondi</i>	SOC/CSC	Grassland situations can occasionally occur in valley-foothill hardwood woodlands. Populations may persist a few years in orchard-vineyard habitats; 0-3000ft.	Low, no appropriate habitat onsite.
REPTILES				
Coastal rosy boa	<i>Charina trivirgata roseofusca</i>	SOC/CSC	Coastal sage scrub, mixed chaparral, oak woodlands and chamise chaparral. Often found in association with rock outcrops; 0-3000ft.	High, appropriate habitat occurs onsite.
Coastal western whiptail	<i>Cnemidophorus tigris multiscutatus</i>	SOC/CSC	Mixed chaparral, riparian, oak woodlands and chamise chaparral. Prefers rocky firm soils but avoids dense grasslands and wet areas; 0-3000ft.	High, appropriate habitat occurs onsite.
Coast patch-nosed snake	<i>Salvadora hexalepis virgulea</i>	SOC/CSC	Grass, chaparral, woodland, desert and coastal sage scrub. Found near rock outcrops with adjacent seasonal drainages; 0-3000ft.	Moderate potential to occur.
Northern red diamond rattlesnake	<i>Crotalus ruber ruber</i>	SOC/CSC	Coastal sage scrub, mixed chaparral, open grassy areas and agricultural areas, chamise chaparral, pinon juniper and desert scrub; 0-3000ft.	High, appropriate habitat occurs onsite.
Orange-throated whiptail	<i>Cnemidophorus hyperythrus</i>	SOC/CSC Protected	Can be found in coastal sage scrub, mixed chaparral, grassland, riparian, and chamise chaparral habitats. Open hillsides with brush and rock, well drained soils; 0-1000ft.	Low, the site is above the elevation range for this species. Directed surveys did not document this species onsite.

APPENDIX D
SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO THE
KEMERKO PROPERTY (TPM 20716)

Common Name	Scientific name	Federal/ State Status	Habitat	Potential On-Site
San Diego ringneck snake	<i>Diadophis punctatus ssimilis</i>	--/CSC	Coastal sage scrub, mixed chaparral, riparian, oak woodlands, chamise chaparral, mixed conifer, closed cone forest. Can be found on surface during winter after rainfalls or during spring; 0 to over 3000ft.	High, appropriate habitat occurs onsite.
MAMMALS				
American badger	<i>Taxidea taxus</i>	--/CSC	This species is most abundant in drier open stages of most shrub, forest, and herbaceous habitats; 0 to over 3000ft.	Low, no burrows observed onsite.
Big free-tailed bat	<i>Nyctinomops macrotis</i>	--/CSC	This species if found in a variety of plant associations including desert scrub, various woodlands and coniferous forests. Is a colonial roosting species that is typically found in crevices of rugged cliffs and high, rocky outcrops; 0 to 3000ft.	High, appropriate habitat occurs onsite.
Dulzura California pocket mouse	<i>Chaetodipus californicus femoralis</i>	SOC/CSC	Occupies coastal sage scrub, mixed chaparral, oak woodland, chamise chaparral, and mixed conifer habitats; 0 to over 3000ft.	High, appropriate habitat occurs onsite.
Fringed Myotis	<i>Myotis thysanodes</i>	FSC/CSC	This species may be found in a variety of plant communities including desert scrub, oak woodlands, and pinyon-juniper forests. It is a colonial species that prefers caves, mines and abandoned buildings for roost sites.	Low, no appropriate roost sites onsite.
Greater western mastiff bat	<i>Eumops perotis californicus</i>	SOC/CSC	Open semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. Crevices in cliff faces, high buildings, trees, and tunnels are required for roosting; 500-3000ft.	High, appropriate habitat occurs onsite.
Long-eared myotis	<i>Myotis evotis</i>	FSC/--	They are found predominantly in coniferous forests, typically only at higher elevations in southern areas; between 7,000 and 8,500 feet.	Low, the site is well below the elevation range for this species.

APPENDIX D
SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO THE
KEMERKO PROPERTY (TPM 20716)

Common Name	Scientific name	Federal/ State Status	Habitat	Potential On-Site
Long-legged myotis	<i>Myotis volans</i>	FSC/--	Prefers forested mountainous areas, but can be found in a variety of areas down to desert lowlands. Regularly roosts in buildings but also will use hollow trees, loose bark and crevices in rock ledges; 0 to 3000ft.	Moderate, appropriate habitat may occur onsite.
Los Angeles little pocket mouse	<i>Perognathus longimerbris brevinasus</i>	SOC/CSC	Los Angeles Pocket Mice is restricted to lower elevation grasslands and Coastal Sage associations in the Los Angeles Basin; 0-1000ft.	Low, site is above elevational range for this species.
Mountain Lion	<i>Felis concolor</i>	County Sensitive	Species found in a variety of different habitats from desert to coast range forest; 0 to 10,000ft.	Moderate, site is contiguous with large areas of undeveloped lands.
Pallid bat	<i>Antrozous pallid</i>	--/CSC	Coastal sage scrub, mixed chaparral, oak woodlands, chamise chaparral, desert wash and desert scrub. Prefers rocky outcrops, cliffs and crevices with access to open habitats for foraging; 0-1000ft.	Low, the site is above the elevation range for this species although appropriate habitat occurs onsite.
Pocketed free-tailed bat	<i>Nyctinomops femorosaccus</i>	--/CSC	This species if found in a variety of plant associations including desert scrub, coastal scrub and pine oak woodlands. Is a colonial roosting species that is typically found in crevices of rugged cliffs and high, rocky outcrops; 0 to 3000ft.	High, appropriate habitat occurs onsite.
Ringtail	<i>Bassariscus astutus</i>	--/CSC	Nocturnal; found in mixed and chamise chaparral. Nests in rock recesses, hollow trees, logs, snags, abandoned burrow, or woodrat nests; 500 to over 3000ft.	High, appropriate habitat occurs onsite.
San Diego black-tailed jackrabbit	<i>Lepus californicus bennetti</i>	SOC/CSC	Coastal sage scrub, mixed chaparral, oak woodlands, chamise chaparral, mixed conifer, and closed cone forest and open areas. Common in irrigated pastures and row crops; 0 to over 3000ft.	Low this species is typically observable and was not identified onsite.
San Diego desert woodrat	<i>Neotoma lepida intermedia</i>	SOC/CSC	Nocturnal in Coastal sage scrub, oak woodlands and chamise chaparral and rocky outcrops. Typically associated with cacti; 500-3000ft.	Low, no cactus onsite.

APPENDIX D
SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO THE
KEMERKO PROPERTY (TPM 20716)

Common Name	Scientific name	Federal/ State Status	Habitat	Potential On-Site
Small-footed myotis	<i>Myotis ciliolabrum</i>	FSC/--	Occurs in deserts, chaparral, riparian zones, and western coniferous forests. It is most common in elevations above the pinyon-juniper forest level. Roosts in crevices provided by natural features such as cliffs, rocky outcrops, caves, and trees; 500 to 3000ft.	High, appropriate habitat occurs onsite.
Southern grasshopper mouse	<i>Onychomys torridus ramona</i>	SOC/CSC	Nocturnal in coastal sage scrub, mixed chaparral, grassland, and chamise chaparral. Low to moderate shrub cover is preferred; 500-3000ft.	High, appropriate habitat occurs onsite.
Southern mule deer	<i>Odocoileus hemionus</i>	County Sensitive	The mule deer is extremely adaptable occupying all but two or three of the major vegetation types in the western United States.	High, appropriate habitat occurs onsite.
Townsend's western big-eared bat	<i>Corynorhinus townsendii</i>	SOC/CSC	Found in all but subalpine and alpine habitats. Requires caves, mines, tunnels, buildings, or other human-made structures for night, day, hibernation or maternity roosts; 500-3000ft.	Low, only known remaining population in San Diego County is in Noble Canyon.
Yuma myotis	<i>Myotis yumanensis</i>	SOC/CSC	Mixed chaparral, riparian, oak woodland and pinon juniper. Optimal habitats are open forests and woodlands with sources of water over which to feed; 0-1000ft.	Low, no appropriate habitat and site is above elevation range for this species.
BIRDS				
Rufous-crowned sparrow	<i>Aimophila ruficeps canescens</i>	SOC/None	Breeds and feeds on steep, dry, herbage-covered hillsides with scattered shrubs and rock outcrops.	High, appropriate habitat occurs onsite.
Bell's sage sparrow	<i>Amphispiza belli belli</i>	SOC/CSC	Coastal sage scrub, mixed and chamise chaparral. Nests well hidden in sagebrush or other scrub; 0-3000ft.	High, appropriate habitat occurs onsite.
California gnatcatcher	<i>Polioptila californica</i>	FT/CSC	Most numerous in low, dense coastal sage scrub habitat of coastal hills.	High, appropriate habitat occurs onsite.
Golden eagle	<i>Aquila chrysaetos canadensis</i>	--/CSC Fully protected	Mountains, foothills, and adjacent grassland, open areas and canyons; 0-3000ft. (nesting/wintering)	High, appropriate habitat occurs onsite.
Turkey Vulture	<i>Cathartes aura</i>	--/CSC	Dry open country or along roadsides; coastal sage scrub, mixed and chamise chaparral, grassland, riparian, mixed conifer and closed cone forest; 0 to over 3000ft.	High, appropriate habitat occurs onsite.

* = Appendix E -

Sensitivity Codes

APPENDIX E
SENSITIVITY CODES

APPENDIX E SENSITIVITY CODES

FEDERAL SPECIES DESIGNATIONS (USFWS 2001)

Category

FE	Federal Endangered species
FT	Federal Threatened species
FPE	Taxa proposed to be listed as Endangered.
FPT	Taxa proposed to be listed as Threatened.
SOC	Species of Concern (former Candidate Species)

STATE SPECIES DESIGNATIONS (CDFG 2000)

Category

SE	State listed as Endangered.
ST	State listed as Threatened.
SR	State-listed Rare
SCE	State candidate for listing as Endangered.
SCT	State candidate for listing as Threatened.
CSC	CDFG "Species of Special Concern".

CALIFORNIA NATIVE PLANT SOCIETY DESIGNATIONS (CNPS 2003)

The CNPS Lists

- List 1 Plants of highest priority.
 - 1A Plants presumed extinct in California.
 - 1B Plants rare, threatened or endangered in California and elsewhere.
- List 2 Plants rare, threatened or endangered in California, but more common elsewhere.
- List 3 Plants about which we need more information. (A Review List)
- List 4 Plants of limited distribution (A Watch List).

The R-E-D Code

R (Rarity)

- 1 Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time.
- 2 Distributed in a limited number of occurrences, occasionally more if each occurrence is small.
- 3 Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported.

E (Endangerment)

- 1 Not endangered.
- 2 Endangered in a portion of its range.
- 3 Endangered throughout its range.

D (Distribution)

- 1 More or less widespread outside California.
- 2 Rare outside California.
- 3 Endemic to California.

APPENDIX F

QUINO CHECKERSPOT BUTTERFLY REPORT



RC BIOLOGICAL CONSULTING, Inc.
4215 Spring Street, Suite 321, La Mesa, Ca 91941
Phone: (619) 463-1072 fax: (619) 463-0859
email: info@rcbio.com

Sam Kemerko
4669 Charest Drive
Waterford, Michigan 48327

May 2, 2007

Subject: *45-Day Report for the Kemerko Property Quino Checkerspot Butterfly Flight Survey, Dehesa, San Diego County, California (PERMIT #TE-134332-0 & TE-053020-1)*

Dear Mr. Kemerko:

This report documents the results of six (6) flight survey visits conducted by Andrew Drummond (Permit #TE-134332-0) and Sara Thorne (Permit #TE-053020-1), for the presence of the federally-listed endangered Quino checkerspot butterfly (*Euphydryas editha quino*; QCB) on the Kemerko property (APNs: 339-030-29 & 30, 399-040-11). The 10-day notification for this project was submitted on March 14, 2007 stating that surveys would be performed by Robin Church, permit number TE-812206-3, Andrew Pigniolo permit number TE-0503020, or another permitted biologist. A copy of this report has been mailed direct to the Fish & Wildlife Services.

Quino checkerspot butterfly was not observed during the survey. One large patch of dwarf plantain (*Plantago erecta*), the Quino checkerspot butterfly's primary host plant, was observed onsite.

Site Location and Description

The proposed project is a minor subdivision and residential development of approximately 94 gross acres into four parcels plus a remainder parcel. The project is located in the Community of Harbison Canyon, in East San Diego County, south of Interstate 8. The proposed project is located within the USGS 7.5' Alpine Quadrangle, Township 15 South, Range 1 East (Figure 1). The proposed project is located within the Metro-Lakeside-Jamul portion of the Multiple Species Conservation Program (MSCP).

The project area is located in the southern portion of San Diego County within the foothills and interior valleys of the region. The property includes ridges and a very steep mountain slope trending to the southeast. The project area is located on the western side of Harbison Canyon on the southeastern slope of a larger series of mountains. Elevations range from 1000 to 1840 feet above mean sea level (MSL). The soils on the property include Las Posas series and acid igneous rock (Bowman 1973).

Vegetation Communities

Four habitat types occur within the project site: mafic southern mixed chaparral, granitic southern mixed chaparral, coastal sage scrub and developed as quantified in Table 1 below. The site burned in the 2003 Cedar Fire and much of the site has recovered but is still relatively open given the habitats observed onsite. A complete list of plant species observed onsite is included in Appendix III.

Habitat Type	Acres
Mafic Southern Mixed Chaparral	14.86
Granitic Southern Mixed Chaparral	4.07
Diegan Coastal Sage Scrub	74.79
Developed Habitat	0.34
Total	94.06

Quino Checkerspot Survey Methods

Initiation of the flight season was the result of performing field visits with Ms. Alison Anderson to the Marron Valley monitored population, conversations with Ms. Anderson, and the site conditions with regard to presence of host plant and/or nectaring sources, and observation of adults in Dulzura. Termination of the flight season was based on no longer observing adults in Dulzura.

Survey methods followed those outlined in the Year 2002 Survey Protocol for the Quino checkerspot butterfly (USFWS 2002). Surveys consisted of linear transects within the coastal sage scrub and open areas of southern mixed chaparral habitats. Approximately 7-10 acres per hour were surveyed (protocol requires no more than 15 acres per hour). Due to low rainfall potentially resulting in decreased numbers of adults the site was surveyed at a slower rate to increase the probability of detection.

Six site visits under protocol conditions were conducted to insure adequate coverage of the site during the flight season. Survey conditions are detailed in Table 2. Field notes are attached in Appendix II.

Date	Time	Survey	Temperature (°F)	Sky	Wind (mph)	Observers
3/23/07	13:00 - 16:30	Focused Quino	71°-67°	Clear	0-5	AD
3/30/07	14:00-17:00	Focused Quino	80°-75°	Clear	2-6	AD

Date	Time	Survey	Temperature (°F)	Sky	Wind (mph)	Observers
4/06/07	12:30-15:20	Focused Quino	71°- 70°	Clear	2-5	ST
4/10/07	10:00-12:55	Focused Quino	69°-74°	Clear	0-1	AD
4/18/07	10:00-14:00	Focused Quino	63°-70°	Clear	3-9	ST
4/27/07	9:15-13:15	Focused Quino	78°-83°	Clear	0-3	ST

AD = Andrew Drummond, ST = Sara Thorne

Excluded Areas

Approximately 63 acres of the total project site were excluded from the survey area (Figure 2). This area is located at a distance of 300 feet or greater outside of the proposed project impact area. The total area surveyed was approximately 31 acres and consisted of coastal sage scrub, chaparral, and developed habitats.

Host Plants and Nectar Sources

The QCB's primary host plant species include dwarf plantain (*Plantago erecta*), wooly plantain (*Plantago patagonica*), white snapdragon (*Antirrhinum coulterianum*) and/or dark-tip bird's beak (*Cordylanthus rigidus*) (USFWS 2002) as well as Chinese houses (*Collinsia heterophylla*) and possibly other Scrophulariaceae (Ballmer et al. 2000). The Quino checkerspot butterfly's secondary host plant species include: purple owl's clover (*Castilleja exserta*). The host plant, dwarf plantain was observed onsite (Figure 2). One patch of approximately 1000 individuals was observed in coastal sage scrub just south of the dirt road that crosses the project site. White snapdragon (*Antirrhinum coulterianum*) was observed in a previous focused Quino survey (Laguna Mountain 2004) but was not observed during this year's survey.

Quino checkerspot butterfly nectar sources include: onion (*Allium* spp.), fiddleneck (*Amsinkia* spp.), yarrow (*Achillea millefolium*), popcornflower (*Cryptantha* spp. & *Plagiobothrys* sp.), California buckwheat (*Eriogonum fasciculatum*), gilia (*Gilia* sp.), goldfields (*Lasthenia* spp.), lomatium (*Lomatium* sp.), monkeyflower (*Mimulus* sp.), goldenstar (*Muilla* sp.), (USFWS 2002), as well as chia (*Salvia columbariae*), blue dicks (*Dichelostemma pulchellum*), and various mustards (Ballmer et al., 2000). Several of these known Quino checkerspot butterfly nectar plants were observed onsite: fiddleneck, yarrow, popcornflower, California buckwheat, monkeyflower, chia, blue dicks, and mustard.

Butterflies Observed

Quino checkerspot butterfly was not observed onsite. Thirteen butterfly species were observed on the property during the surveys in addition to ten unidentified ladies, one unidentified sulphur, and six unidentified whites (See Table 3 below).

Species	Week						Total
	1	2	3	4	5	6	
Acmon blue (<i>Icaricia acmo</i>)				3			3
Behr's metalmark (<i>Apodemia mormo virgulti</i>)			1	1	2	1	5
Brown elfin (<i>Incisalia augustinus</i>)		2	1	1			4
Common white (<i>Pontia protodice</i>)			4		1	3	8
Desert orangetip (<i>Anthocharis cethura</i>)		2				1	3
Funereal duskywing (<i>Erynnis funeralis</i>)	19	14	13	24	18	3	91
Gabb's checkerspot (<i>Chlosyne gabbii</i>)						1	1
Marine blue (<i>Leptotes marina</i>)					5	4	9
Painted lady (<i>Vanessa cardui</i>)			2				2
Perplexing hairstreak (<i>Callophrys perplexa</i>)	3		3	3			9
Sara orange-tip (<i>Anthocheiris sara</i>)	7	12	3	3	8	9	42
Southern blue (<i>Glaucopsyche lygdamus australis</i>)	15	19	6	11	7	1	59
West coast lady (<i>Vanessa annabella</i>)						1	1
Unidentified lady		5		4	1		10
Unidentified sulphur						1	1
Unidentified white	1	2		3			6

Conclusion

QCB was not observed onsite during the survey. The area surveyed was open and included a single population of *Plantago erecta* comparable in size and density to occupied QCB sites elsewhere in San Diego County (e.g., Marron Valley, Jamul Mtn., and Otay Mesa). At a landscape scale, the Kemerko property is different, from other QCB occupied sites in San Diego County. Although the Kemerko property is mostly south-facing with moderate slopes, there are no prominent hilltops or ridges on the site. It is unlikely that the site could support a sustained population of QCB. Given this negative survey, the negative survey performed in 2004 by Laguna Mountain Environmental, and the current conditions onsite, the probability of QCB occupying the Kemerko property is low.

Certification

This concludes the report for a focused survey for the Quino checkerspot butterfly conducted on the Kemerko property.

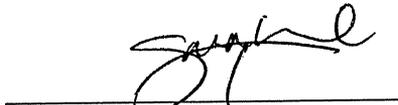
I certify that the information in this survey report and attached exhibits fully and accurately represent my work.

If you have any questions please do not hesitate to call.

Sincerely,



Andrew Drummond
Permit Number # TE-134332-0

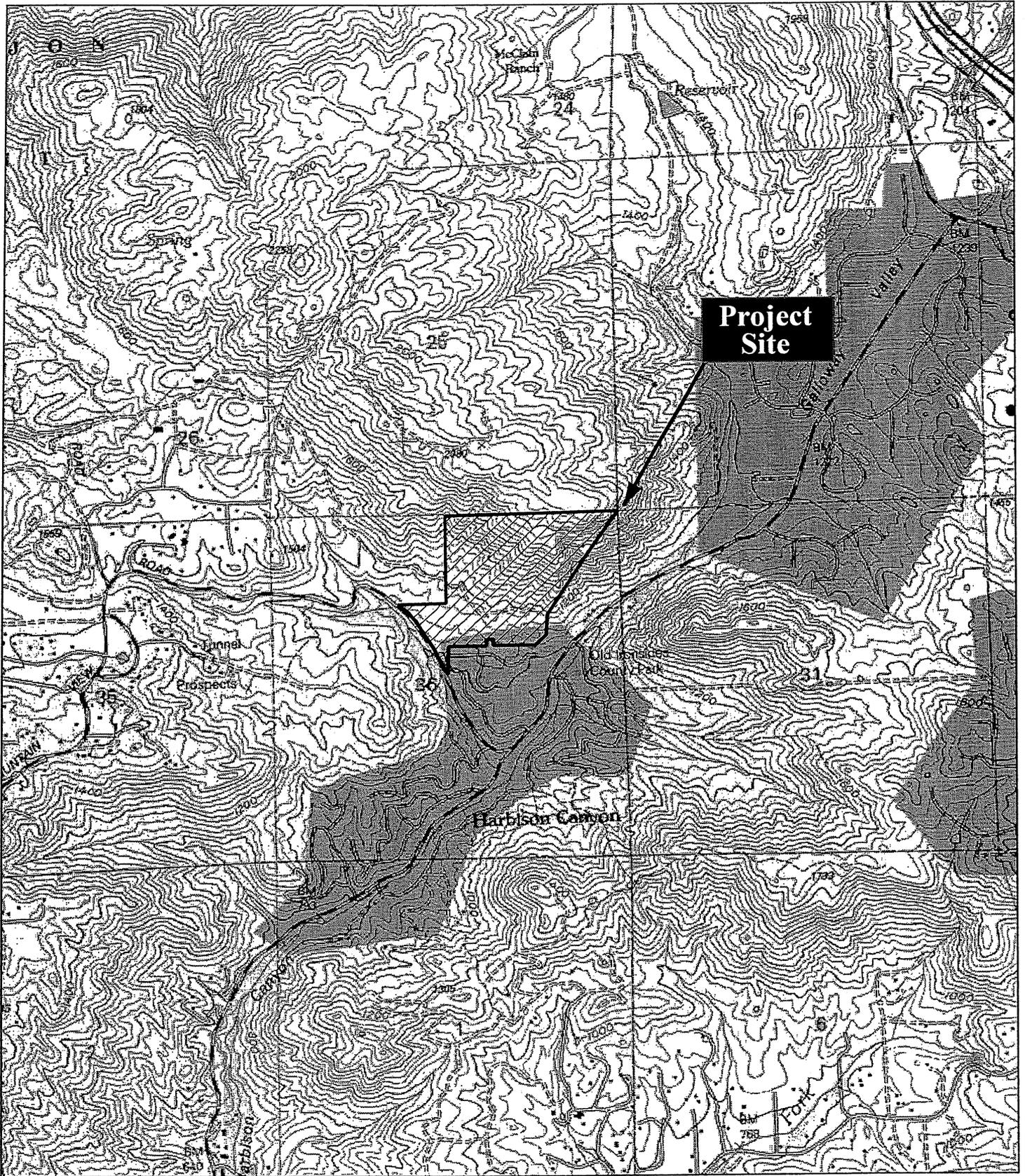


Sara Thorne
Permit Number # TE-053020-1

References

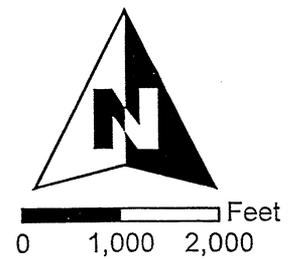
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- USFWS. U.S. Fish and Wildlife Service, 2000. *Information on the Quino Checkerspot Butterfly Year 2000 Survey Protocol*. The unpublished manuscript is available from the Carlsbad Field Office, Carlsbad, California.

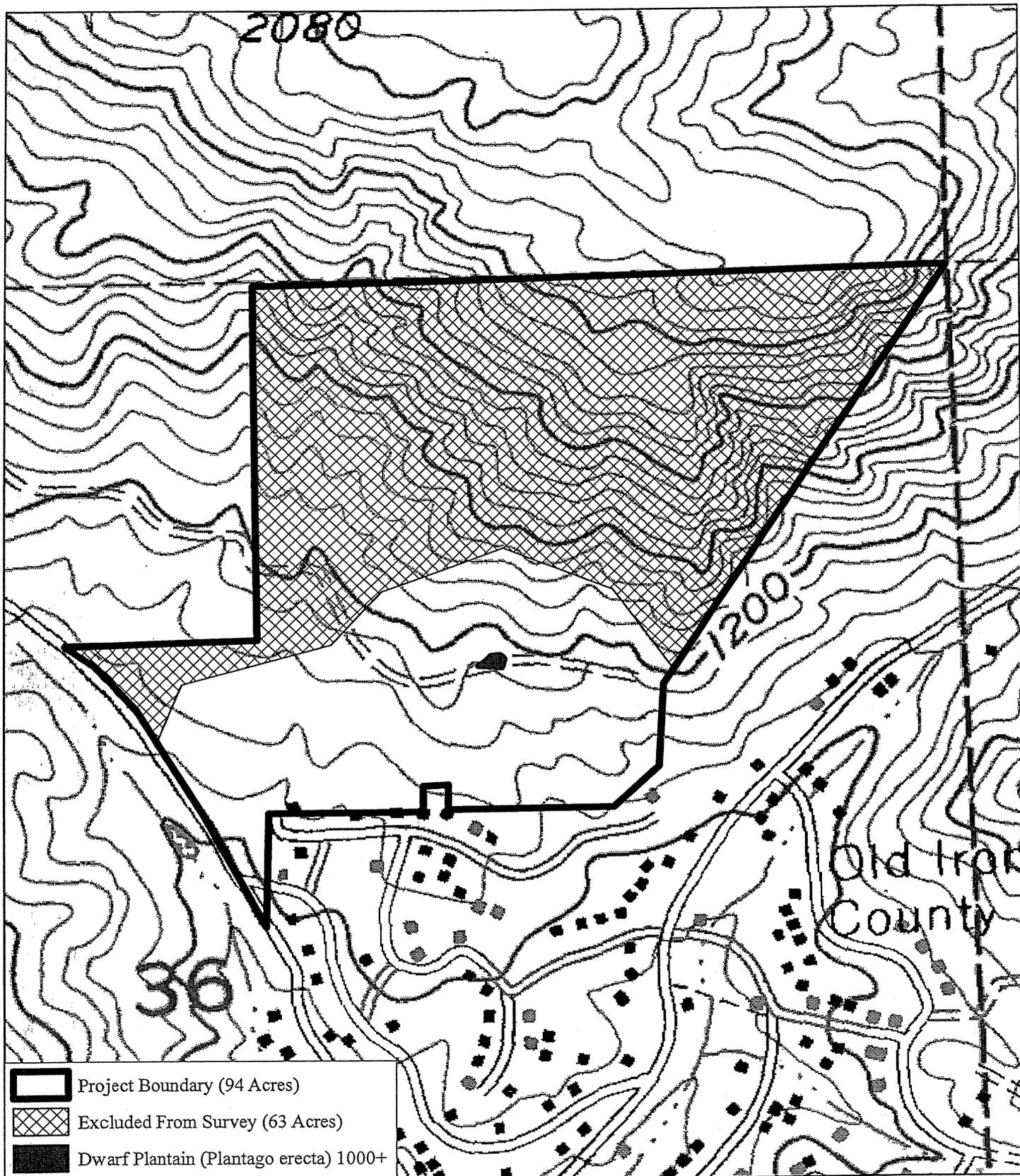
Appendix I – Figures



Source: USGS 7.5' Alpine Quadrangle

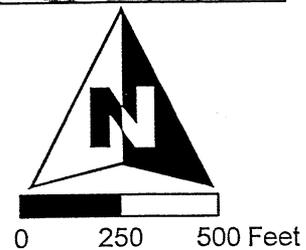
Figure 1
Kemerko Project Location





Source: USGS 7.5' Alpine Quadrangle
 UTM:515751E, 3632031N

Figure 2
Kemerko Survey Area



Appendix II – Field Notes

Quino Survey Data Form

Kemerko

DATE: 3/23/07

SURVEYOR: Andrew Drummond (TE-134332-0)

	<u>Start Conditions</u>	<u>End Conditions</u>
Time:	1:00 PM	4:30 PM
Temp:	71 °F	67 °F
Sky:	sunny (50% clear)	pt cloudy (25% clear)
Wind:	2-5 MPH	0-2 MPH

Host Plant Observations:

NONE

Perplexing Hairstreak III

Sera orange tip IIII II

Funereal duskywing IIII IIII IIII IIII

So. blue IIII IIII IIII

white I

Notes:

flowers: deerweed, rock rose, chic, CA poppy
lilac sp. spine bush, popcorn flower,
xylocorus bicolor, and others

Quino Survey Data Form

KEMERKO

DATE: 3/30/07

SURVEYOR: Andrew Drummond (TE-134332-0)

	<u>Start Conditions</u>	<u>End Conditions</u>
Time:	2:00PM	5:00PM
Temp:	80 °F	70 °F
Sky:	CLEAR	CLEAR
Wind:	2-6 MPH	2-6 MPH

Host Plant Observations:

NONE

Sara orange tip IIII IIII II

desert orange tip II

Funereal duskywing IIII IIII IIII

So. blue IIII IIII IIII IIII

Brown elfin II

lady 1

white 1

Notes:

Remarks 94

4-10-07

start 12:30 / 85% cloud cover / 71°F / 0-3 mph winds

stop 15:20 / clear + sunny / 70°F / 2-5 mph winds

summary: Focused Quino Checkerspot

summary: S. Thorne

Habitats: CSS

Flowering
plants

Brassica nigra, Lotus scoparius, plagiobothrys, rattlesnake spurge
blue dicks, dunnys skull cap, parry's nightshade, ca poppy, graber
cleanothas tom, chap. pea, ground pink, showy penstemon, vigiera

Sax's skip-111

hoverfly-111

Funeral dusky-111-111

dragon fly-111

Common white-111

lesser gold-1

Southern blue-111-1

OTWT-1

Perplexing-111

Coast horned lizard-1

Brown elvin-1

cottontail-11

Painted lady-11

beetle-1

Plantago is blooming + healthy, 0.5"-3" tall

Quino Survey Data Form

KEMERKO

DATE: 4/10/07
SURVEYOR: Andrew Drummond (TE-134332-0)

	<u>Start Conditions</u>	<u>End Conditions</u>
Time:	10:00AM	12:55PM
Temp:	69 °F	74 °F
Sky:	CLEAR	CLEAR
Wind:	0-1 MPH	0-1 MPH

Host Plant Observations:

sparse patch of *Plantago erecta* obs.

Behr's 1
Sara 111

F. dusky 1111 1111 1111 1111 1111

So. blue 1111 1111 1

brown elfin 1

Perplexing hair. 111

Acmon blue 111

marine blue 11

Lady 1111 11

Notes:

white 111

Kemerko 94

4-18-07

start: 10:00 / 15% cloud cover / 63°F / 3-7 MPH winds
 stop: 14:00 / " " " / 70°F / 3-9 MPH winds
 survey: Focused *Oreno* checkerspot
 surveyor: S-Thorne

Habitat CSS

Flowering plants

Brassica, popcornflower, mirabilis, lotus scoparius, lupinus, morning glory, blue dicks, rattlesnake spurge, ca poppy, erodium, parry's phacelia, wild pea, baccharis sara, goldenbush, cat-phacelia, amsinckia, lotus stung, mimulus, viguiera, ground pink, keckiella, chia, hellanthus, entogonum

Funereal dusky - IIII IIII IIII III	house Finch - 11
So. blue - IIII 11	Bumble bee - IIII
sard's otip - IIII 11	scrub jay - 11
Behrs - 11	grasshopper - 1
marine blue - IIII	wasp - 1
unident lady - 1	Anna's - 1
co. white - 1	desert cotton - IIII
	mocking - III
	hawk fly - 1
	lessergold - III
	ca Towhee - 1
	kingbird - 1

* much less plant life than 2 weeks ago, still flowering though, very short < 10 mm

Kemerko 94

4-27-07

start: 9:15 / clear & sunny / 0-3 MPH / 78°F

stop: 13:15 / " " / 0-1 MPH / 83°F

survey: Focused Quino checkerspot

surveyor: S. Thorne

Habitat: ESS

Flowering: Brassica, Lotus scop, popcornflower, mirabilis, stinging
 Lotus, chia, blue dicks, goldenbush, pennistemon, morning
 glory, bacc. saro, ca poppy, Lotus str, phacelia par,
 erodium, vigiera, ceanothus, ground pink, helianthus,
 rattlesnake spurge, malacothamnus, wild rad, raphanus sat, gilia

Funereal dusky-111

desert wren-1

Sara's Otip-111111

ho. finch-1111

Behr's-1

alligator lizard-1

West Coast lady-1

ca towhee-111

So. blue-1

Co. white-111

unident. Sulphur-1

Desert Otip-1

marine blue-1111

cabot's checkerspot-1

*Plantago is 85% dried out, few still flowering.

Appendix III – Plants Observed

PLANT SPECIES OBSERVED ON THE KEMERKO PROPERTY (TPM 20716)

Family Name	Species Name ♦	Common Name	Habitat
AGAVACEAE	<i>Yucca whipplei</i>	Our Lord's candle	SMC, CSS
ANACARDIACEAE	<i>Malosma laurina</i>	Laurel sumac	SMC, CSS
	<i>Rhus ovata</i>	Sugar bush	CSS
	<i>Toxicodendron diversilobum</i>	Poison oak	CSS
APIACEAE	<i>Apiastrum angustifolium</i>	Mock parsley	SMC
	<i>Daucus pusillus</i>	Rattlesnake weed	SMC
ASCLEPIADACEAE	<i>Sarcostemma</i> sp.	Milkvine	CSS
ASTERACEAE	<i>Acourtia microcephala</i>	sacapellote	SMC
	<i>Artemisia californica</i>	California sagebrush	SMC, CSS
	<i>Baccharis sarothroides</i>	Broom baccharis	SMC, CSS
	<i>Calycadenia tenella</i>	Three-spot	SMC, CSS
	<i>Centaurea melitensis</i> ♦	Star-thistle	SMC, CSS
	<i>Chaenactis artemisiaefolia</i> ♦	White pincusion	SMC, CSS
	<i>Chaenactis</i> sp.	Pincusion	SMC
	<i>Conyza bonariensis</i> ♦	Flax-leaf fleabane	SMC
	<i>Conyza canadensis</i> ♦	Horseweed	SMC, CSS
	<i>Erigeron foliosus</i>	Fleabane	SMC
	<i>Eriophyllum confertiflorum</i>	Golden yarrow	SMC
	<i>Filago californica</i>	California filago	SMC, CSS
	<i>Gnaphalium bicolor</i>	Bicolor cudweed	CSS
	<i>Gnaphalium californicum</i>	California everlasting	CSS
	<i>Gnaphalium</i> sp.	Everlasting	SMC
	<i>Gutierrezia sarothrae</i>	San Joaquin matchweed	SMC, CSS
	<i>Hazardia squarrosus</i>	Sawtooth goldenbush	SMC, CSS
	<i>Hedypnois cretica</i> ♦	Crete hedypnois	SMC, CSS
	<i>Helianthus gracilentus</i>	Slender sunflower	SMC
	<i>Hemizonia fasciculata</i>	Fascicled tarweed	SMC, CSS
	<i>Lactuca serriola</i> ♦	Prickly lettuce	SMC
	<i>Machaeranthera juncea</i>	Rush chaparral-star	SMC
	<i>Microseris douglasii</i>	Douglas' microseris	SMC, CSS
	<i>Porophyllum gracile</i>	Odora	SMC, CSS
	<i>Sonchus oleraceus</i> ♦	Common sow-thistle	SMC, CSS
	<i>Stephanomeria virigata</i>	Twiggy wreath plant	SMC
	<i>Stylocline gnaphalioides</i>	Everlasting neststraw	SMC, CSS
	<i>Viguiera laciniata</i>	San Diego sunflower	SMC, CSS
BORAGINACEAE	<i>Amsinckia</i> sp.	Fiddleneck	SMC, CSS
	<i>Cryptantha</i> sp.	Cryptantha	SMC, CSS
	<i>Plagiobothrys</i> sp.	Popcornflower	SMC, CSS
BRASSICACEAE	<i>Brassica nigra</i> ♦	Black mustard	SMC, CSS
	<i>Lepidium</i> sp. ♦	Peppergrass	SMC, CSS
	<i>Raphanus sativa</i> ♦	Wild radish	CSS
CAMPANULACEAE	<i>Triodanis perfoliata</i>	Small venus-looking-glass	SMC
CAPRIFOLIACEAE	<i>Lonicera suspicata</i>	Chaparral honeysuckle	SMC
	<i>Sambucus mexicana</i>	Mexican elderberry	CSS
CARYOPHYLLACEAE	<i>Silene gallica</i> ♦	Windmill pink	SMC, CSS
	<i>Silene multinervia</i>	Many-nerve catchfly	SMC, CSS

PLANT SPECIES OBSERVED ON THE KEMERKO PROPERTY (TPM 20716)

Family Name	Species Name ♦	Common Name	Habitat
	<i>Silene laciniata</i>	Indian pink	CSS
CHENOPODIACEAE	<i>Salsola tragus</i> ♦	Russian thistle	CSS
CISTACEAE	<i>Helianthemum scoparium</i>	Rock rose	SMC, CSS
CONVOLVULACEAE	<i>Calystegia macrostegia</i>	Morning glory, bindweed	SMC
	<i>Cuscuta californica</i>	Witch's hair	SMC, CSS
	<i>Cuscuta ceanothi</i>	Canyon dodder	SMC
CRASSULACEAE	<i>Crassula connata</i>		SMC, CSS
	<i>Dudleya edulis</i>	Ladies-fingers	CSS
	<i>Dudleya pulverulenta</i>	Chalk-lettuce	CSS
CUCURBITACEAE	<i>Marah macrocarpus</i>	Wild cucumber	SMC
ERICACEAE	<i>Arctostaphylos glandulosa</i>	Eastwood manzanita	SMC
	<i>Xylococcus bicolor</i>	Mission manzanita	SMC
EUPHORBIACEAE	<i>Acalypha californica</i>	California copperleaf	CSS
	<i>Chamaesyce</i> sp.	Spurge	SMC, CSS
FABACEAE	<i>Lathyrus</i> sp.	Pea	SMC
	<i>Lotus</i> sp.	Lotus	SMC
	<i>Lotus scoparius</i>	Deerweed	SMC, CSS
	<i>Lupinus bicolor</i>	Dove lupine	SMC
	<i>Lupinus hirsutissimus</i>	Stinging lupine	CSS
	<i>Vicia ludoviciana</i>	Deer pea vetch	CSS
FAGACEAE	<i>Quercus berberidifolia</i>	Scrub oak	SMC
	<i>Quercus engelmannii</i>	Engelman oak	SMC
GERANIACEAE	<i>Erodium botrys</i> ♦	Long-beak filaree	SMC, CSS
HYDROPHYLLACEAE	<i>Emmenanthe pendiflora</i>	Whispering bells	CSS
	<i>Phacelia cicutaria</i>	Caterpillar phacelia	SMC, CSS
	<i>Phacelia parryi</i>	Parry's phacelia	SMC
LAMIACEAE	<i>Salvia apiana</i>	White sage	SMC
	<i>Salvia columbariae</i>	Chia	SMC, CSS
	<i>Salvia mellifera</i>	Black sage	CSS
	<i>Salvia mellifera x apiana</i>	Sage	CSS
LILIACEAE	<i>Calochortus</i> sp.	Mariposa lily	SMC
	<i>Cholorogalum parviflorum</i>	Small-flower soap-plant	SMC, CSS
	<i>Dichellostemma capitatum</i> ssp. <i>pauciflorum</i>	Blue dicks	SMC
NYCTAGINACEAE	<i>Mirabilis californica</i>	Wishbone bush	CSS
ONAGRACEAE	<i>Camissonia californica</i>	Mustard evening primrose	SMC, CSS
	<i>Camissonia hirtella</i>	Field suncup	SMC, CSS
PAEONIACEAE	<i>Paeonia californica</i>	California peony	CSS
PAPAVERACEAE	<i>Eschscholzia</i> sp.	Poppy	CSS
PLANTAGINACEAE	<i>Plantago</i> sp.	Plantain	SMC, CSS
POACEAE	<i>Avena barbata</i> ♦	Slender oat	CSS
	<i>Bromus diandrus</i> var. <i>gussonei</i> ♦	Common or Gusson ripgut grass	SMC, CSS
	<i>Bromus mollis</i> ♦	Soft chess	SMC, CSS
	<i>Bromus rubens</i> ♦	Foxtail chess	SMC, CSS
	<i>Gastridium ventricosum</i>	Nitgrass	SMC
	<i>Lamarckia aurea</i> ♦	Goldentop	SMC, CSS
	<i>Melica frutescens</i>	Tall melic	CSS

PLANT SPECIES OBSERVED ON THE KEMERKO PROPERTY (TPM 20716)

Family Name	Species Name ♦	Common Name	Habitat
	<i>Melica imperfecta</i>	Coast range melic	SMC, CSS
	<i>Muhlenbergia microsperma</i>	Littleseed muhly	SMC, CSS
	<i>Stipa coronata</i>	Needlegrass	SMC, CSS
	<i>Stipa lepida</i>	Foothill needlegrass	SMC, CSS
	<i>Vulpia hirsute</i> ♦	Foxtail fescue	SMC, CSS
POLEMONIACEAE	<i>Eriastrum saphirinum</i>	Wolly-star	SMC, CSS
	<i>Navarretia</i> sp.	Navarretia	SMC, CSS
POLYGONACEAE	<i>Chorizanthe fimbriata</i>	Fringed Turkish rugging	SMC, CSS
	<i>Chorizanthe</i> sp.	Turkish rugging	CSS
	<i>Eriogonum fasciculatum</i>	California buckwheat	SMC, CSS
	<i>Pterostegia drymarioides</i>	California threadstem	SMC, CSS
POLYPODIACEAE	<i>Cheilanthes</i> sp.	Lip-fern	SMC
	<i>Pellaea mucronata</i>	Birdsfoot fern	SMC, CSS
PRIMULACEAE	<i>Anagallis arvensis</i> ♦	Scarlet pimpernel	SMC, CSS
RHAMNACEAE	<i>Ceanothus tomentosus</i>	California lilac	SMC
	<i>Rhamnus crocea</i>	Spiny redberry	SMC, CSS
	<i>Rhamnus pilosa</i>	Hairy-leaf redberry	SMC
ROSACEAE	<i>Adenostoma fasciculatum</i>	Chamise	SMC
	<i>Cercocarpus betuloides</i>	Birchleaf mountain mahogany	SMC
	<i>Heteromeles arbutifolia</i>	Toyon	CSS
	<i>Prunus ilicifolia</i>	Holly-leaf cherry	SMC
RUBIACEAE	<i>Galium angustifolium</i>	Narrow-leaf bedstraw	SMC
	<i>Galium aparine</i> ♦	Common bedstraw	SMC
	<i>Galium porrigens</i>	Oval-leaf bedstraw	SMC
RUTACEAE	<i>Cneoridium dumosum</i>	Spice bush	SMC, CSS
SCROPHULARIACEAE	<i>Antirrhinum coulterianum</i>	White snapdragon	CSS
	<i>Antirrhinum nuttallianum</i>	Nuttall's snapdragon	SMC, CSS
	<i>Cordylanthus filifolius</i>	Thread-leaf birdsbeak	SMC, CSS
	<i>Diplacus aurantiacus australis</i>	San Diego monkey flower	SMC
	<i>Keckiella antirrhinoides</i>	Yellow bushpenstemon	CSS
	<i>Keckiella cordifolia</i>	Heartleaf bushpenstemon	SMC
	<i>Linaria</i> sp.	Toadflax	SMC
	<i>Mimulus</i> sp.	Monkey flower	SMC
SELAGINELLACEAE	<i>Selaginella bigelovii</i>	Bigelow's mossfern	SMC
	<i>Selaginella cinerascens</i>	Ashy spike-moss	SMC, CSS
SOLANACEAE	<i>Physalis</i> sp.	Ground-cherry	CSS
	<i>Solanum americanum</i> ♦	White nightshade	CSS
	<i>Solanum</i> sp.	Nightshade	CSS

* = Non-native Plant Species, SMC= Southern Mixed Chaparral, CSS= Coastal sage scrub

APPENDIX G
CUMULATIVE IMPACTS ANALYSIS

Cumulative Impacts Analysis for Kemerko Property TPM 20716

The following analysis was performed to determine if the proposed project, a minor subdivision and residential development of 94.06 gross acres would result in cumulatively considerable impacts when viewed in connection with the effects of past projects, other current projects and probable future projects in conformance with Section 15130(a) of the State CEQA Guidelines.

For the purposes of this analysis the geographic limits of the study area were limited to projects within the Southern Valley ecoregion as mapped on the "San Diego County Ecoregion Map for Species Distribution Model" available from DPLU and the proposed Crestlake Estates due to the fact that it is located within the same wildlife linkage. The ecoregion was then further redefined to remove projects occurring in the Otay area due to the geographic distance, lack of mafic soils and low potential to support inland coastal sage scrub.

A project list was obtained using KIVA and reviewing discretionary projects. After identify discretion projects, the files were reviewed to determine if they would also have impacts on mafic southern mixed chaparral and inland coastal sage scrub, the two sensitive biological resources that the proposed project will impact. A list of projects that may impact mafic chaparral and/or coastal sage scrub is included as Table 1. There was not always adequate information in the file to determine if the impacts would be to coastal or inland coastal sage scrub and what the proposed mitigation for those impacts are. However for the purposes of this analysis, since all of the projects are located within the Multiple Species Conservation Plan (MSCP), it is assumed that the projects will mitigate in conformance with the Biological Mitigation Ordinance (BMO), as required for approval. In evaluating cumulative biological impacts the following questions were addressed for the project along with other existing and proposed projects (Listed in Table 1). A copy of the pertinent sections of the Draft EIR for Crestlake Estates was reviewed. Additionally the impacts from the emergency processing facility located on the 5th parcel to the west of the site were considered.

1. Would the project have a substantial adverse affect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Yes, the project will have a substantial adverse affect on sensitive species. Four sensitive plants were observed on-site, Ashy spike-moss (*Selaginella cinerascens*), Engelmann oak (*Quercus engelmannii*), , Rush chaparral-star (*Machaeranthera juncea*), and San Diego sunflower (*Viguiera laciniata*). Impacts to San Diego sunflower are likely as a result of the proposed project, however, numerous individuals inhabit the coastal sage scrub and southern mixed chaparral on-site. There is a moderate potential for impacts to one

Engelmann oak as a result of the proposed project. The oak is not located within the proposed grading, however it is located within an area that may be impacted due to the fact that it is no being proposed as impacts. No impacts will occur to ashy spike moss or rush chaparral star as a result of the proposed project.

2. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Yes, the project will have a substantial adverse affect on sensitive natural communities, mafic southern mixed chaparral and inland coastal sage scrub.

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

No, the project site does not support federally protected wetlands as defined by Section 404 of the Clean Water Act.

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

~~No, the project will not interfere substantially with the movement of wildlife or wildlife corridors. The proposed project is located within a pre-approved mitigation area that serves as a linkage. The project is located within a portion of the Dehesa – El Capitan linkage that is approximately 2250 feet wide.~~

The project has been redesigned significantly. The redesign allowed the proposed open space in conjunction with the proposed open space on the L-14049 grading project to allow for a wildlife corridor of a minimum width of 800-850 feet resulting in preservation of 38% of the linkage width. The restriction of corridor is for a length of approximately 800 feet then the corridor expands to its full width on the two projects. The proposed project will provide approximately 650' of the width with the remaining 200' being provided by L-14049. The approval of L-14049 is conditioned to record the open space to contribute to the corridor width. The proposed project will impact approximately 28% of the project site. The large open space area on the property will allow sufficient room for wildlife movement through the site.

The site is located within the same linkage as the proposed Crestlake Estates project. The draft EIR for the Crestlake Estates project was reviewed to determine the impacts of that project on the linkage. The draft EIR states in Section 4.3.2.1.f(1) that the impacts to the Deheasa-El Capitan linkage will be less than significant. Additionally, the DEIR references an Ogden 1992 wildlife corridor study that functional corridors for mule deer range from 175 feet to 6000 feet in width. It concludes that ideal corridors for species up to mule deer size are approximately 500 feet in width and have buffers of around 250 feet in width on each side.

The proposed project in conjunction with proposed L-14049 will provide a minimum linkage width of 850 feet which will be preserved in open space. On each side of this is a minimum buffer where limited impacts will occur such as construction of the leach field and fuel management. Additionally, the proposed residential use generally results in higher activity during the day time then at night and the early morning hours when wildlife activity is the highest. The proposed project does not result in a significant cumulative impact to the Deheasa-El Capitan linkage.

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

No, the project will not conflict with local policies or ordinances. The project is mitigating in conformance with the Biological Mitigation Ordinance.

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

No the project will not conflict with the MSCP. The project will mitigate in conformance with the BMO. In addition, the project is working with L-14049 to create a linkage in conformance with the BMO.

7. Does the project have impacts that are individually limited, but cumulatively considerable?

No, the project does not have cumulative considerable impacts due to the fact that the project will mitigate in conformance with the BMO and the other projects will also be required to mitigate in conformance with the BMO. In addition, the project will prevent contributing to cumulative impacts by mitigating 9.7 acres of mafic southern mixed chaparral onsite and 0.62 acres offsite of this habitat type or other tier 1 habitat. Inland coastal sage scrub will be mitigated for "in kind" onsite. Additionally, the project has worked with the adjacent parcel map to preserve the wildlife linkage.

In summary, the project will not contribute to significant cumulative biological impacts as a result of the proposed mitigation for the project and the assumed mitigation (through conformance with the BMO) for the other projects considered. The goal of the MSCP is to prevent significant cumulative biological impacts and to provide for a viable preserve system that will contribute to the long term survival of the covered species.

Table 1 Cumulative Projects and Similar Biological Resource Impacts – Kemerko Property (TPM 20716)				
Project Name	Habitat Impacts		Other Impacts	Mitigation
	Mafic Southern Mixed Chaparral (Habitat Code: 37122)	Inland Coastal Sage Scrub (Habitat Code: 32520)		
Spring Valley Vistas TM 5336/AKA TMC 03-0161 Subdivision 12.5 acres into 45 residential condo units [Spring Valley]	No	No – acreage Information not available.; appears to be Coastal CSS (site elev. 700’-800’)	Metavolcanic soils	Info not available
Eaton TM TM 5325/ER03-14-043 [Crest]	No	Probably Inland CSS Mapped as CSS by DPLU/SanGIS as CSS, 28 acres, elev. 1000’ - 3000’, acreage info not available	Information not available.	Information not available.
Price TPM ER 03-14-046 Minor subdivision 24.3 acres into 3 parcels 8 – 8.4 acres [Crest]	No	Probabaly Inland CSS Mapped as CSS (32500) by DPLU/SanGIS– Crest elev. generally > 1000’. Exact acreage not available, but SanGIS aerial photo appears to be approx. 90% I-CSS	Information not available.	Information not available.

Table 1 Cumulative Projects and Similar Biological Resource Impacts – Kemerko Property (TPM 20716)				
Project Name	Habitat Impacts		Other Impacts	Mitigation
	Mafic Southern Mixed Chaparral (Habitat Code: 37122)	Inland Coastal Sage Scrub (Habitat Code: 32520)		
Dotts Tentative Subdivision TM 5300/ER 02-14-054 Subdivide 37.96 acres into 7 lots [Crest]	Chaparral – does not specify mafic or granitic	Exact information not available., but apparently no CSS onsite - files mention only chaparral and wetland	Wetlands	Information not available.
Kemerko 40 L-14049 KIVA #: 04-14619/3014002/3910 04-14619/20716/3200 Grading of residential house pads and improvements of a 20 foot wide driveway [Crest]	Yes, 26.54 acres mafic SMC occurs. Impacts: 12.28 acres	Yes, 9.54 acres occurs; 1.71 acres impacted	No	Inland CSS: 2.57 acres onsite preservation. Mafic SMC: 14.21 acres onsite preservation, 9.75 acres offsite acquisition.

**Table 1
Cumulative Projects and Similar Biological Resource Impacts – Kemerko Property (TPM 20716)**

Project Name	Habitat Impacts		Other Impacts	Mitigation
	Mafic Southern Mixed Chaparral (Habitat Code: 37122)	Inland Coastal Sage Scrub (Habitat Code: 32520)		
York TPM 20897 Minor subdivision 21.65 acres into 2 lots [Crest]	No	Yes, 11.36 acres occurs; 5.85 acres impacted		Inland CSS: 3.60 acres onsite preservation; 2.58 acres offsite acquisition. CS-CS: 2.74 acres onsite preservation. SWS: 0.70 acres onsite preservation. Open water: 0.09 acres onsite preservation.
Crest View TM 5332 Subdivision of 90 acres into 20 lots [Crest]	No	Yes, 7.4 acres occurs, 0 acres impacted.		CSS Inland: 7.4 acres onsite preservation. SCLORF: 3.6 acres onsite preservation. SMC: 36.54 acres onsite preservation + other habitats. RPO wetland buffer: 1.76 acres onsite conservation.

Table 1 Cumulative Projects and Similar Biological Resource Impacts – Kemerko Property (TPM 20716)			
Project Name	Habitat Impacts		Mitigation
	Mafic Southern Mixed Chaparral (Habitat Code: 37122)	Inland Coastal Sage Scrub (Habitat Code: 32520)	
Madrid Ranch Estates TM 5363/ER 04-19-600 [Spring Valley]	No	No, CSS onsite is coastal: 0.38 acres occur, 0.30 acres impacted.	No Onsite preservation: 0.08 acres Offsite acquisition: 0.30 acres
The Pointe Resort/complex/office park/homes/golf course TM4828 Draft EIR 653 acres development [Spring Valley]	No	No, Coastal CSS 514.1 acres occur, 190.0 impacted. (elev. 250'-906')	Wetland: 10.8 occur, 10.8 acres impacted. NNG: 94.2 occur, 85.9 impacted. CSS: 307.6 onsite preservation, but loss of habitat for 8 pairs CAGN not mitigated. Wetland: 10.8 onsite creation in open space (Fresh Water Aquatic, SWS, SC-W RF, Open Water). NNG: Not mitigated.
Montemar Estates TPM 5316 ER 03-14-031 Subdivide 7.57 acres into 13 lots [Spring Valley]	No	Yes: Coastal CSS: 0.11 occurs (low quality), 0.11 impacted. (elev. 675' -725')	NNG: 7.46 occurs, # impacted not provided. Wetlands: # acres not provided CSS: 0.11 offsite acquisition. NNG: 3.97 offsite acquisition. Wetlands: onsite preservation.

Cumulative Projects and Similar Biological Resource Impacts – Kemerko Property (TPM 20716)			
Project Name	Habitat Impacts		Mitigation
	Mafic Southern Mixed Chaparral (Habitat Code: 37122)	Inland Coastal Sage Scrub (Habitat Code: 32520)	
Glenn Abbey Memorial Park Expansion MUP 52-008W3 ER 78-18-029A [Spring Valley]	No	No, Coastal CSS: 42.2 onsite 14.2 impacted (elev. 0'-500')	Onsite preservation of: CSS: 27.9 SWS: 0.2 MFS: 0.2 MSS: 3.1 CLOW: 0.5
Sweetwater Authority ER 01-19-018A L 14 317 Shoreline fishing facility [Spring Valley]	No	Yes (Coastal) CSS-Grassland mix (elev. 200'-300'), # acres occurring not provided	CSS: 1.92 onsite preservation VP: 2.70 onsite restoration N-NNG: 1.0 onsite preservation NNG: 0.45 onsite preservation Otay tarplant: onsite restoration/enhancement
Lodge at Bonita ER 98-18-002 L 13290 Construction of senior care facility on 10.17 acres [Spring Valley]	No	Unknown, (Coastal?) CSS: 0.78 occurs, 0.50 impacted	# Acres onsite preservation: CSS: 0.28 Mar. SS: 1.85 NNG: 0.21

Table 1

Table 1

Cumulative Projects and Similar Biological Resource Impacts – Kemerko Property (TPM 20716)

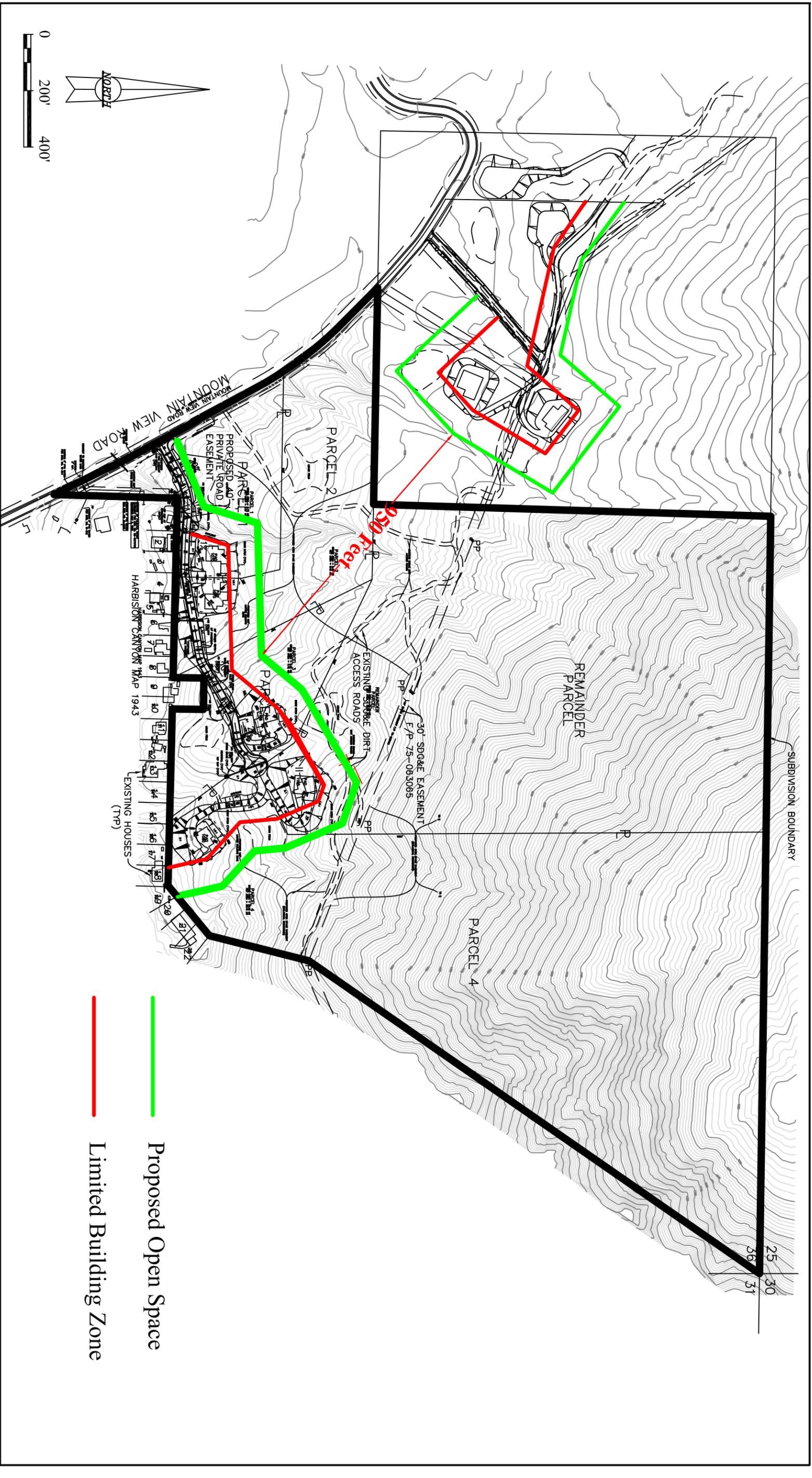
Project Name	Habitat Impacts		Other Impacts	Mitigation
	Mafic Southern Mixed Chaparral (Habitat Code: 37122)	Inland Coastal Sage Scrub (Habitat Code: 32520)		
Wheeler Ridge TM 5156 ER 99-18-001 Subdivide 14.1 acres into 14 lots [Spring Valley]	No	No, Coastal CSS: 2.2 occurs, 1.3 impacted (elev. 240’-360’)	NNG: 10.1 occurs, 9.4 impacted. SD Viguiera, SD thronmint, Otay tarplant, CAGN	CSS: 0.91 onsite preservation NNG: 0.75 onsite preservation [Bio-report 6/2000, County asked for re-design—not in file]
Vista Grande/Ambiance TM 5305 ER 03-14-005 Subdivide 27 acres into 20 lots [Valley de Oro]	No	Unknown, (Coastal?) CSS: 14.65 occurs, > 11.72 impacted	Information not available.	CSS: <2.51 onsite preservation. [Bio-report done 5/2003, County asked for revisions which were not available or not finished]
Vista Grande TM 4988 Subdivide 11.67 acres into 11 lots. [Valley de Oro]	No	No, Coastal CSS: 3.99 acres occurs, 1.97 impacted, (elev. 840’-953’)	Orange-throated whiptail S.D. Sunflower	CSS: 3.25 acres offsite acquisition, 2.02 acres onsite preservation.

**Table 1
Cumulative Projects and Similar Biological Resource Impacts – Kemerko Property (TPM 20716)**

Project Name	Habitat Impacts		Other Impacts	Mitigation
	Mafic Southern Mixed Chaparral (Habitat Code: 37122)	Inland Coastal Sage Scrub (Habitat Code: 32520)		
Boekel ER 78-14-176 TPM 20531 Subdivide 2.36 acres into 4 lots. [Valley de Oro]	No	No, (Coastal—flat-top buckwheat dominated) CSS 1.22 acres occurs, 1.22 impacted, (elev. 540'-800')	No	CSS: 1.3 acres offsite acquisition.
La Cresta Tanksite L 14385/ER 03-14-008 Grading for 3 SFR's, 4 to 13 acres [Crest]	No	Yes, 1.94 acres Inland CSS occurs. Impacts: Onsite: 0.67 acres Offsite: 0.11	Granitic SMC, Sensitive plants	CSS: onsite preservation of 1.27 acres SMC: onsite preservation of 2.66 acres

Table 1
Cumulative Projects and Similar Biological Resource Impacts – Kemerko Property (TPM 20716)

Project Name	Habitat Impacts		Other Impacts	Mitigation
	Mafic Southern Mixed Chaparral (Habitat Code: 37122)	Inland Coastal Sage Scrub (Habitat Code: 32520)		
Blossom Valley Ranch (Reynolds) TM 5197 ER 00-14-083 AD 00-011 Subdivide 65.28 acres into 25 lots. [Valley de Oro]	No	Yes. (Coastal?) CSS: 21.3 acres occurs, 9.7 impacted.	Yes. NNG: 36.2 acres occurs, 25.2 impacted. CAGN, Palmer's grappling hook, 2 coast live oaks.	CSS: 4.3 acres offsite acquisition, 10.2 acres onsite preservation. NNG: 7.1 acres onsite preservation, 3.4 acres offsite acquisition. Mule fat and wetland: onsite preservation 100%. Live oaks: Replant 10 onsite.



RC

Biological Consulting, Inc.

Kemerko Property (TPM 20716RPL) - Corridor Exhibit

Figure 5