

Appendix C:
Biological Resources Supporting Information

C.1 - Biological Resources Assessment Report

General Biological Resources Assessment

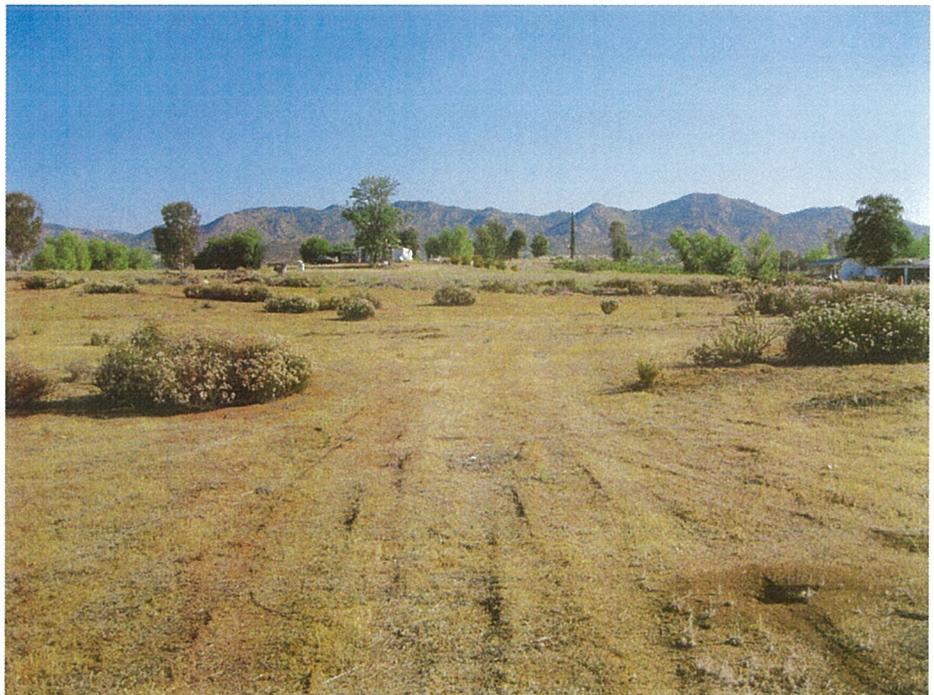
Villa Siena Project Wildomar, California

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1.0 SUMMARY AND PROPERTY DESCRIPTION

Comprehensive biological surveys were conducted on a 10-acre site (gross) located in the City of Wildomar, California, Riverside County at the northeast corner of Priellip Road and Elizabeth Lane (Section 6, Township 7 South, Range 3 West) (Figures 1, 2, and 3). The surveys were conducted in order to evaluate the existing biological resources present on the site, and to determine if any sensitive species were likely to occur on the property. The site was also evaluated to determine if any critical habitats were present. This biological report summarizes the results of the field investigations as required by the Multiple Species Habitat Conservation Plan (MSHCP) for Western Riverside County. The assessment includes a review of pertinent literature, a review of the California Natural Diversity Data Base (CNDDB), field investigations, and analysis of potential impacts to biological resources. A focused survey for the burrowing owl (*Athene cunicularia*) was also conducted as per protocol given the presence of several suitable owl burrows.

The property site has been disturbed by past human activities over the last several decades and the majority of the site currently supports a disturbed grassland community (Figure 4). A small drainage swale is located within the eastern portion of the site with a small area of mixed desert scrub adjacent to the swale (Figure 4). A single-family dwelling is also located in the southeast corner of the property. The most common mammals seen during the field investigations included cottontails (*Sylvilagus auduboni*) and California ground squirrels (*Spermophilus beecheyi*). Other mammals known to occur in the general area include deer mice (*Peromyscus maniculatus*) and pocket gophers (*Thomomys bottae*). These two species could potentially occur on the site; although, no live-trapping surveys were conducted as part of the field surveys. Coyotes (*Canis latrans*) are relatively common in the region and may occasionally traverse the site during hunting activities. Side blotched lizards (*Uta stansburiana*) were the only reptiles seen during the surveys; although, western fence lizards (*Sceloporus occidentalis*), granite spiny lizards (*Sceloporus orcuttii*), gopher snakes (*Pituophis melanoleucus*), and common garter snakes (*Thamnophis sirtalis*) are common in the region and likely inhabit the site. Some of the birds identified during the field investigations included American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaidura macroura*), house finch (*Carpodacus mexicanus*), and American goldfinch (*Carduelis tristis*).

The project proponent is proposing to construct an apartment development consisting of 1, 2, and 3 apartment units (Proposed R-3 residential zoning) (Figure 5). A total of 170-units are proposed for the property. The site is located within the Riverside County HCP fee area for the Stephen's kangaroo rat (Riverside County Habitat Conservation Agency, 1995). Any potential impacts to this species will be mitigated through participation in the HCP, and a per-acre fee will be required.

2.0 CALIFORNIA NATURAL DIVERSITY DATA BASE

A review of the California Natural Diversity Database (CNDDDB) search indicated there are several sensitive wildlife and plant species that have been documented in the area surrounding the property. These species include seven sensitive plants species and nine animal species, which are listed in the following table. The potential presence of these species on the Villa Siena site and potential impacts are discussed in Section 4.0.

Table 2.0-1: Sensitive plant and animal species documented within a five mile radius (approximate) of property site according to CNDDDB (2014)

NAME	STATUS	HABITAT REQUIREMENTS	PRESENCE/ABSENCE ON-SITE	COMMENTS
PLANTS				
Parry's spineflower (<i>Chorizanthe parryi</i> var. <i>parri</i>)	CNPS: 1B.1	Coastal sage scrub communities below 2,500 feet elevation.	Suitable habitat is absent from the site.	Nearest pop. located 2.5-mile northwest of site
Round-leaved filaree (<i>California macrophylla</i>)	CNPS: 1B.1	Native valley grasslands and foothill woodlands.	Suitable habitat is absent from the site.	Nearest pop. located 4.5-miles northeast of site
Intermediate mariposa-lily (<i>Calochortus weedii</i> var. <i>intermedius</i>)	CNPS: 1B.2	Coastal sage scrub and native grassland communities.	Suitable habitat is absent from the site.	Nearest pop. located 4-miles northeast of site
Long-spined spineflower (<i>Chorizanthe polygonoides</i> var. <i>longispina</i>)	CNPS: 1B.2	Chaparral plant community.	Suitable habitat is absent from the site.	Nearest pop. located 3.5-miles northeast of site
Robinson's pepper-grass (<i>Lepidium virginicum</i> var. <i>robinsonii</i>)	CNPS: 1B.2	Coastal sage scrub and chaparral communities.	Suitable habitat is absent from the site.	Nearest pop. located 3.5-miles northeast of site
Spreading navarretia (<i>Navarretia fossalis</i>)	Federal: T CNPS: 1B.1	Freshwater marshes and vernal pools.	Suitable habitat is absent from the site.	Nearest pop. located 2.5-miles northeast of site
Smooth tarplant (<i>Centromadia pungens</i> ssp. <i>laevis</i>)	CNPS: 1B.1	Native grassland.	Suitable habitat is absent from the site.	Nearest pop. located 4.5-miles west of site

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ANIMALS				
Orangethroat whiptail (<i>Aspidoscelis hyperythra</i>)	Federal: None State: None CDFW: SSC	Chaparral areas where loose sand and rocky habitats are available.	Species is unlikely to inhabit the site and no whiptails were observed during the field investigations.	Nearest pop. located 1-miles east of site
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	Federal: None State: None CDFG: SSC	Open areas with sandy soils where ant colonies are available.	Species was not observed during the field investigations and there is a low probability the species inhabits the site.	Nearest pop. located 1-miles north of site
Coastal California gnatcatcher (<i>Polioptila californica californica</i>)	Federal: T State: None CDFW: SSC	Coastal sage scrub.	Suitable habitat is absent from the site.	Nearest pop. located 2.5-miles northwest of site
Burrowing owl (<i>Athene cunicularia</i>)	Federal: None State: None CDFW: SSC	Open grassland areas where the owls utilize abandoned mammal burrows.	Suitable burrows present on the site; however, owls were not observed during the focused breeding season surveys conducted in April, May, and June.	Nearest pop. located 4.5 miles southeast of site
Northwestern San Diego pocket mouse (<i>Chaetodipis fallax fallax</i>)	Federal: None State: None CDFW: SSC	Coastal sage scrub and chaparral.	Suitable habitat is absent from the site.	Nearest pop. located 3.5-miles southeast of site
Stephens' kangaroo rat (<i>Dipodomys stephensi</i>)	Federal: E State: T	Annual grasslands.	Suitable habitat present; however, low probability species inhabits the site.	Nearest pop. located 1-miles northeast of site
San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>)	Federal: None State: None CDFW: SSC	Open and semi-open grasslands.	Suitable habitat present; however, no jackrabbits observed on the site.	Nearest pop. located 1-mile northeast of site
Western spadefoot toad (<i>Spea hammondi</i>)	Federal: None State: None CDFW: SSC	Typically associated with alkali flats, washes, and floodplains.	Suitable habitat absent from the site.	Nearest pop. located 1-mile northeast of site
Riverside fairy shrimp (<i>Streptocephalus woottoni</i>)	Federal: E State: None CDFW: None	Vernal pools.	No vernal pools present on the site.	Nearest pop. located 1-mile northeast of site

Legend: CNPS = California Native Plant Society
E = Endangered
T = Threatened
SSC = Species of special concern

3.0 METHODOLOGY

3.1 General Vegetation and Wildlife

Pertinent environmental documents were reviewed prior to initiation of biological field surveys. Documents reviewed included, but were not limited to, sensitive species occurrence maps, Riverside County MSHCP, data from the California Natural Diversity Data Base, field guides, soil maps, and biological assessments prepared for other projects in the general area. Initial biological surveys were conducted on April 30, 2013 to evaluate the existing biological conditions with additional surveys conducted on May 1, June 14, and July 5, 2013. Table 1 (Appendix A) provides a list of the plants identified during the surveys. The vegetation classification system used during the biological surveys and in this report is based on a classification system described by Holland (1986). Wildlife species observed were identified using several methods. Birds were identified by both visual observations and vocalizations. Visual observations of individual animals, as well as tracks, scats, etc. were also used to determine the mammal and reptile populations found on the site and in the surrounding area. Evaluation of habitats and review of existing documentation were also utilized to determine the types of large and small mammals that may occur on the property, either as permanent residents or transitory species.

3.2 Threatened, Endangered, and Species of Special Concern and Critical Habitats

3.2.1 Burrowing Owls (*Athene cunicularia*)

As a result of the initial surveys conducted on April 30, 2013, it was determined that suitable habitat for the burrowing owl was present and numerous suitable burrows were also located throughout the property. Based on the presence of suitable burrows for the burrowing owl, a focused breeding season survey was deemed necessary to determine the presence/absence of the species and the presence/absence of any owl sign (i.e., whitewash, castings, etc.) as per California Department of Fish and Wildlife (CDFW) protocol (CDFW, March 7, 2012). As per protocol requirements, breeding season surveys were conducted on May 1st, June 14th, and July 5th, 2013 to definitely determine the presence/absence of burrowing owls and/or owl sign. The survey was conducted by walking transects throughout the property with transects spaced at approximately 100-foot intervals. The entrances of all fossorial burrows were evaluated during each site visit for the presence of owls and any sign (i.e., whitewash, castings, etc.). As noted above, abandoned fossorial burrows are frequently utilized by owls since owls are not capable of excavating burrows.

3.2.2 MSHCP Consistency

The project site lies north of the designated Southwest Area outlined in the MSHCP and is subject to the appropriate fees and other provisions of the MSHCP. The site is not located within any designated cell critical area and is not subject to a HANS process review. However, the property was reviewed for consistency with the following issues according to MSHCP requirements:

- * Protected species associated with riparian/riverine areas;
- * Protected species associated with vernal pools and vernal pool guidelines;
- * Protected narrow endemic plant species occurring in the region; and
- * Habitat for the burrowing owl.

The following section provides a discussion of the proposed project with regard to the above-noted MSHCP consistency items.

3.2.3 Riparian/Riverine Plant Species

No blueline streams bisect the property and the small drainage swale located along the eastern boundary does not support any distinctive riparian/riverine habitat (Figure 4). However, following consultations with CDFW and USFWS, it was determined that a “Determination of Biological Equivalent or Superior Preservation (DBESP) should be prepared since water flows through the swale likely connected to other adjacent drainage channels which do connect with blueline streams downstream of the property site. Therefore, a DBESP was prepared and has been submitted under separate cover. Vegetation observed within the swale, as well as throughout the remainder of the site, is provided in Section 4.1.

3.2.4 Vernal Pools

No evidence of vernal pools was identified during the field investigations, and the soils on site (Yokohl loam [Ybc]) are not consistent with those known to support vernal pools. The topography of the site is such that it lacks suitable areas which may pool or pond waters sufficiently to develop vernal pools; although, some water may temporarily collect in the swale. Surveys for sensitive plant species typically associated with vernal pools were deemed unnecessary based on the results of the 2013 field investigations.

3.2.5 Narrow Endemic Plant Species

Narrow endemic plant species are sensitive species which are highly restricted by their habitat requirements or other ecological factors, and as such have specific conservation measures that need to be applied if an endemic plant is present or expected to be present on a site (Dudek & Associates, 2003). A population of spreading navarretia (*Navarretia fossalis*) has been documented about 2.5-miles northeast of the property in association with a vernal pool (Dudek & Associates, 2003 and CNDDDB, 2014). This species is dependent upon marshes and vernal pools and is not expected to occur on the site given the absence of suitable vernal pool habitat. Surveys for endemic plant surveys were not conducted on the site.

4.0 RESULTS

General plant surveys were conducted during a time of year (i.e. April, May and June, 2013) when most plant species are readily identifiable. Mammalian and reptilian species inhabiting the site and/or occurring in the surrounding region are also discussed below as are the various bird species which utilize the site either as resident or seasonal species.

4.1 General Vegetation Resources

A disturbed grassland community covers most of the site and the property has been affected by past human activities (Figures 3 and 4). A small drainage swale is located along the eastern boundary and plant diversity was somewhat higher in this area. A small area of desert scrub borders the swale. No sensitive habitats (e.g., coastal sage scrub, vernal pools, etc.) were noted during the surveys. Some of the common perennials on the property included narrow-leaved bedstraw (*Galium angustifolium*), bladderpod (*Isomeris arborea*), chamise (*Adenostoma fasciculatum*), bush chinquapin (*Chrysolepis sempervirens*), dodder (*Cuscuta* sp.), elderberry (*Sambucus mexicana*), and tree tobacco (*Nicotiana glauca*). Annuals consisted of fiddleneck (*Amsinckia tessellata*), common muilla (*Muilla maritima*), perly everlasting (*Anaphalis margaritacea*), snakeweed (*Chamaesyce prostrata*), onion grass (*Melica frutescens*), bentgrass (*Agrostis exarta*), and brome grass (*Bromus sterillis*) (Figure 3). Table 1 provides a list of all of the plants that were identified during the field investigations.

4.2 General Wildlife Resources

Wildlife observed included those species typically found in urban environments, particularly in disturbed areas. These species are discussed below. A list of all wildlife species observed on the site, as well as those likely to occur in the general region, are provided in Table 2 (Appendix A).

4.2.1 Mammals

The property is bordered by existing residences, including single-family dwellings to the north and east, and an apartment complex to the south (Figure 4). An existing single-family dwelling is also located in the southeast corner of the property. A vacant lot borders the property on the west which also shows signs of past disturbance, including agricultural activities. Past development activities in the area have had an overall negative impact on the diversity of wildlife in the general area. The only mammals observed included California ground squirrels (*Spermophilus beecheyi*) and cottontail

rabbits (*Sylvilagus auduboni*). Other common mammals which have been documented in the area and which could potentially inhabit the site include deer mice (*Peromyscus maniculatus*), pocket gophers (*Thomomys bottae*), and California mice (*Peromyscus californicus*). A few coyote (*Canis latrans*) scats were also noted during the survey and coyotes probably occasionally traverse the site during hunting activities. Coyotes are the most common carnivore in the region with a wide distribution.

4.2.2 Birds

Several birds were identified on the site and in adjacent areas such as American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), western kingbird (*Tyrannus verticalis*), house finch (*Carpodacus mexicanus*), violet green swallow (*Tachycineta thalassina*), and lark sparrow (*Chondestes grammacus*). Other species observed in the surrounding area included western meadowlark (*Sturnella neglecta*), Anna's hummingbird (*Calypte anna*), California quail (*Callipepla californica*), and rock dove (*Columba livia*). Table 2 provides a compendium of birds observed and common in the region. (Note: The species discussed above and listed in Table 2 are not intended to be a comprehensive list of all birds likely to occur on the property throughout the year.).

4.2.3 Reptiles and Amphibians

A few side-blotched lizards (*Uta stansburian*) were the only reptiles seen during the field surveys; although, species such as western fence lizards (*Sceloporus occidentalis*), and granite spiny lizards (*Sceloporus orcuttii*) are common to the area and likely inhabit the site. Gopher snakes (*Pituophis melanoleucus*) and common garter snakes (*Thamnophis sirtalis*) may also occur on the site, particularly in the drainage swale, where more diverse vegetation is present. No amphibians were observed during the field investigation and western toads (*Bufo boreas*) are the only species which may occur in the drainage swale due to the more mesic conditions.

4.3 Burrowing Owl (*Athene cunicularia*)

The property supports habitat for the burrowing owl given the presence of several suitable (i.e., "occupiable") burrows. These burrows are suitable for use by burrowing owls based on size and shape; therefore, a breeding season survey was deemed necessary as per the protocol established by CDFW. As discussed in Section 3.2.1, a breeding season survey was conducted in May, June, and July; however, no owls were observed. In addition, no owl sign such as whitewash, casting, etc. were noted at any of the

burrows. Based on these results, burrowing owls are considered to be currently absent from the property site. However, a preconstruction survey will need to be performed 30-days prior to the start of site development to ensure no owls have moved onto the site since completion of the 2013 surveys.

4.4 Habitat Fragmentation and Wildlife Movement

Habitat fragmentation and subsequent impacts to wildlife movements occur when a proposed action results in a single, unified habitat area being divided into two or more areas. This frequently results in the isolation of areas which prevents wildlife from moving freely from one portion of a habitat to another habitat, or from one habitat type to another habitat type. Residential and commercial developments, particularly in undisturbed areas, frequently result in the fragmentation of habitats and/or conversion of native habitats to annual grasslands. Habitat fragmentation also results in the reduction of local wildlife populations and the possible elimination of certain species from the local area and/or region. This can be particularly adverse for those species that occupy limited habitats (i.e., coastal sage scrub).

The property is located in an area where agricultural activities were the dominant land use over the last 50-years. More recently, the area has undergone a significant amount of development and there are now several residential developments in the immediate area. Other residential developments are also currently being planned for the area. Based on the existing site conditions and the current surrounding land use, the proposed residential project is not expected to have an adverse effect on wildlife movements in the immediate area. The site is basically isolated from any other undisturbed habitat areas and no existing wildlife corridors will be eliminated or impacted by the proposed development.

4.5 MSHCP

There are no sensitive plant species known to occur in the immediate area (CNDDDB, 2014), and the site does not support any sensitive habitats (e.g., marshes, vernal pools, etc.) that could be utilized by any narrow endemic plant species that have been documented in the general region (CNDDDB, 2014). Only one endemic plant species has been documented within about five miles of the site and this species is discussed below.

4.5.1 Spreading *Navarretia* (*Navarretia fossalis*)

Background Information: This plant is an annual species which occurs primarily in moist areas such as vernal pools, marshes, and along the edges of ponds. It is very rare in Southern California and is listed as a Federal threatened species and as a CNPS List 1B plant.

Occurrence on the Site: No vernal pools, marshes, or other suitable habitats (e.g., ponds or streams, etc.) occur on the site, and the plant was not observed during any of the field investigations conducted in May, June, and July 2013. Based on the site conditions and the results of the 2013 field surveys, the species is not expected to occur on the property and no additional surveys or mitigations are recommended. Furthermore, a “Determination of Biological Equivalent or Superior Preservation” is not applicable to the property given the absence of the species and suitable habitat.

4.6 Jurisdictional Waters

Activities within streams, wetlands, and riparian areas are regulated by Federal, State, and regional agencies. The U.S. Army Corps of Engineers (USACE) regulates Waters of the US (WoUS) and wetlands under Section 404 of the Clean Water Act. The California Department of Fish and Wildlife (CDFW) regulate activities within the streambed, bank, and associated habitat of stream channels under Fish and Game Code 1600-1616. The California Regional Water Quality Control Board (CRWQCB) regulates discharge to “waters of the U.S.” under Section 401 of the Federal Clean Water Act and the “waters of the State” under the California Porter-Cologne Water Quality Act.

A review of the USGS Murrieta quadrangle (1953) does not show any blueline stream channels present on the site nor were any wetlands, vernal pools, or riparian areas present on the site (Figure 2). A blueline channel is located about 0.2-miles southeast of the site and south of Prielipp Road (Figure 4). Water flows into the drainage swale in the eastern part of the site from Jana Road via sheet flows during major storm events (Figure 4). Water enters the swale primarily from the north.

The drainage swale does not have any inlets or outlets (i.e., culverts, etc.) associated with the swale; however, water entering the swale permeates into the sandy soils. The water in the swale may eventually enter into a large drainage channel immediately southeast of the site which connects to a blueline channel south of the site via a culvert located under Prielipp Road (Figure 4). The swale does not connect directly with any off-site channels; however, the sub-surface connection with the large drainage channel southeast of the site may result in the drainage swale on the project site being considered a “Jurisdictional Waters of the U.S.” (WoUS). In addition, a USACE 404 permit, a CDFW 1600 permit, and CRWQCB 401 permit regulations apply. This conclusion is based on the following:

5.0 IMPACTS AND MITIGATIONS

5.1 General Vegetation and Wildlife

The proposed project would generate some impacts to the general biological resources during grading and clearing activities; however, the site has been disturbed by past activities. Limited plant species would be affected and loss of the existing vegetation would also affect a limited number of wildlife species. Wildlife diversity is relatively low due to the absence of diverse habitats. Direct impacts would include an increase in mortality for less mobile species (e.g., rodents, etc.), whereas more mobile species (primarily birds) would be displaced into vacant habitats in the surrounding area. The ability of displaced wildlife species to survive in adjacent habitats would be dependent upon the existing carrying capacity of the habitats at the time of displacement.

The number of wildlife species that would be displaced from the property during development is expected to be negligible and the overall mortality rate for most wildlife species is expected to be relatively low. Indirect impacts would include an increase in disturbance of daily and seasonal behavior of some species due to increased noise levels during the construction phase.

5.2 Threatened, Endangered, and Species of Special Concern

The site does not support any populations of listed plant or animal species, and there are no documented populations of any sensitive species in the immediate area (CNDDDB, 2014). Sensitive species which have been documented within about 5-miles of the site are not expected to occur on the property given the absence of specific habitats which are required for the presence of specific species (See Table 2.0-1 above). The property is located in an area which has been fragmented due to past development activities, and the proposed project will not generate any impacts to vernal pools, narrow endemic plant species, or burrowing owls. The proposed project will not have any significant impacts to biological resources identified in the MSHCP.

5.3 Habitat Fragmentation and Wildlife Movement

The property is located in an area where habitat has been fragmented due to past agricultural activities and on-going development activities in the surrounding region. The incremental loss of wildlife habitat associated with the proposed development is expected to be minimal, and there are no major wildlife corridors present on the site. The

proposed project will not impede regional wildlife movements or impact any MSHCP-designated corridors or habitat linkages. The Villa Siena project is not expected to have any substantial impacts in regard to habitat fragmentation and regional wildlife movement.

5.4 Critical and Sensitive Habitat

Based on consultations with CDFW and USFWS, the drainage swale in the northeastern portion of the site is considered a riparian/riverine habitat and a DBESP has been prepared to fully analyze the impacts that will occur.

5.5 Jurisdictional Waters

The drainage swale may be considered jurisdictional waters (See Section 4.6); therefore, the CDFW and USCOE have been contacted to determine what permits (i.e., 1600, 404, etc.), if any, may be required.

5.6 Application of CEQA Guidelines – Section 15370

Avoidance of Impacts: The project will generate impacts to riparian/riverine habitat; therefore, a “Determination of Biological Equivalent or Superior Preservation” is applicable to the property based on the results of the field investigations and consultations with CDFW and USFWS. A DBESP has been prepared and is being submitted under separate cover.

Minimization of Impacts: Development of the site will impact 0.1-acres (~5,000 square feet) of riparian/riverine habitat and the DBESP prepared for the project outlines the mitigation measures which be implemented to compensate for these impacts.

Rectifying Impacts: Mitigations will be required for the impacts to the riparian habitat in the northeast corner of the site based on the results of the field investigations conducted in May, June, and July 2013. (See the DBESP for the specific mitigation measures which will be required.)

Impacts: Where possible, native vegetation will be utilized for on-site landscaping in order to provide some habitat for local wildlife species.

Compensation for Impacts: The site is located within the Riverside County HCP fee area for the Stephen’s kangaroo rat and potential impacts to this species will be mitigated through payment of a per-acre fee.

Monitoring Program: No monitoring programs are recommended for this project at the present time.

5.7 Local Policies and Ordinances

The proposed project will not conflict with or have any adverse impact on any local policies or ordinances

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- U. S. Army Corps of Engineers (USACE). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0. U.S. Army Engineer Research and Development Center. ERDC/EL TR-08-28.
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7.0 CERTIFICATION

I hereby certify that the statements furnished in this report present data and information required for this biological assessment, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: September 2014

Signed: Randall Arnold

Randall Arnold
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APPENDIX A

FIGURES

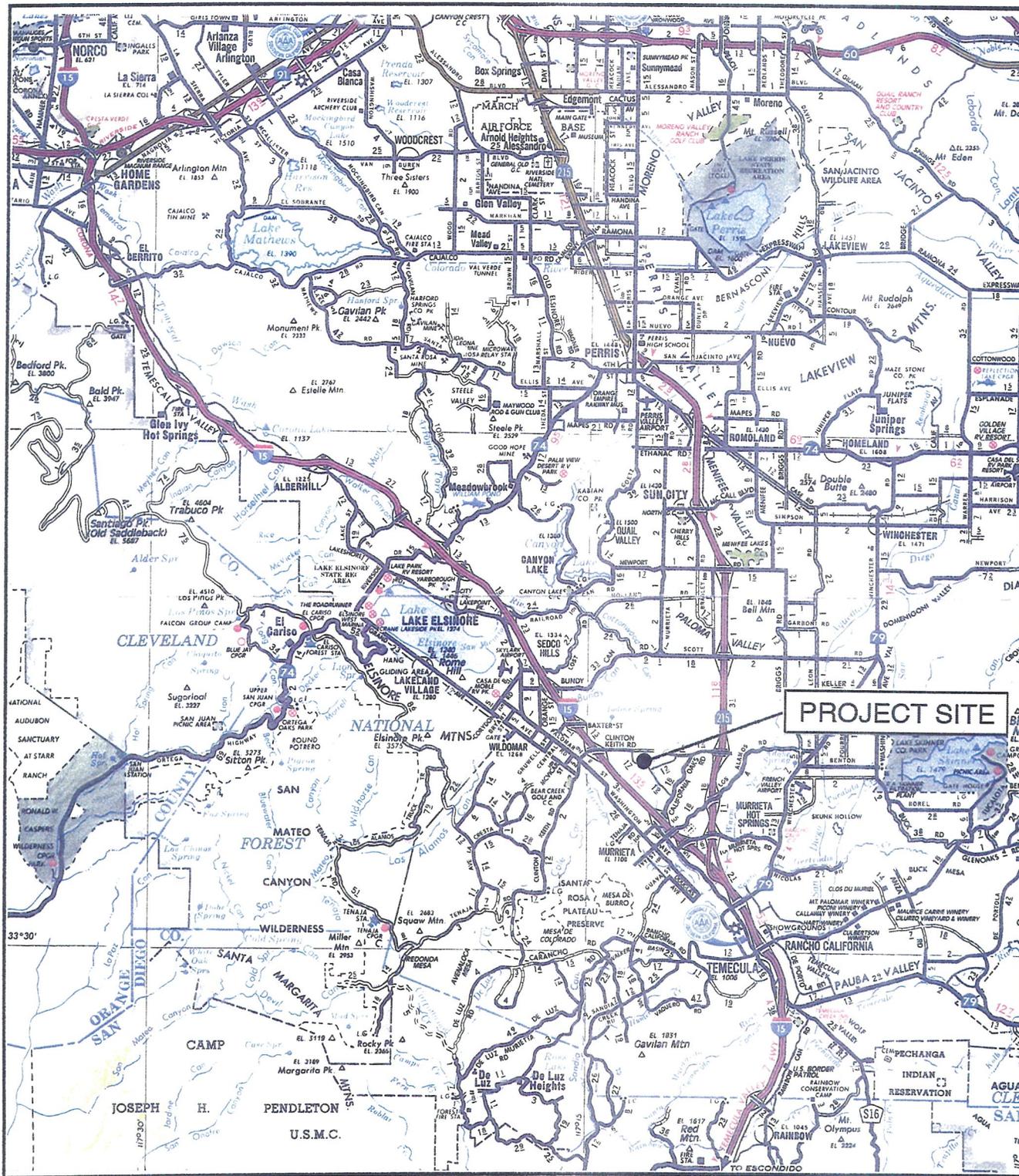


FIGURE 1
VICINITY MAP
 (Villa Siena, Wildomar, CA)
 (Source: ACSC Map Source, 2013; NTS)



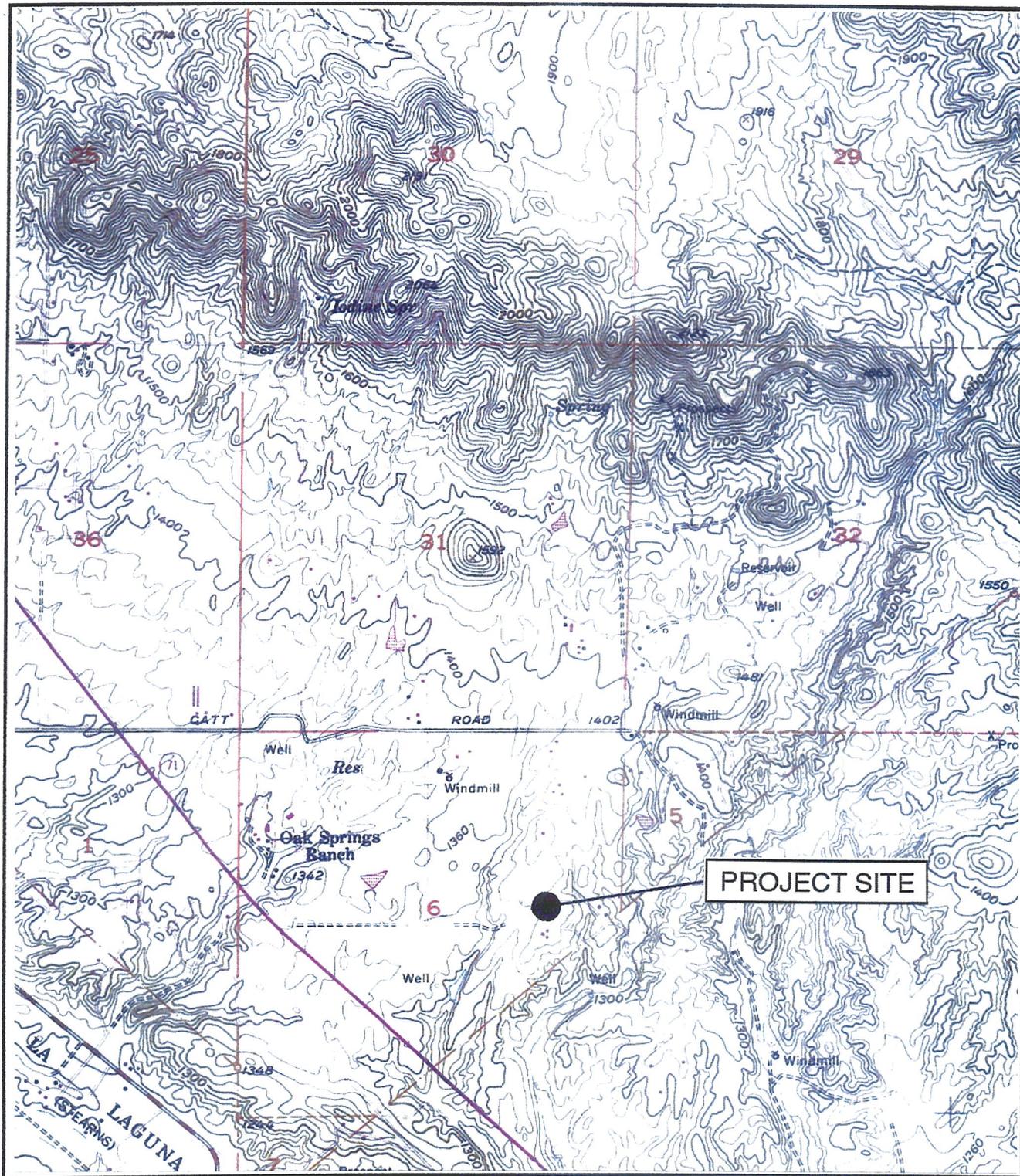
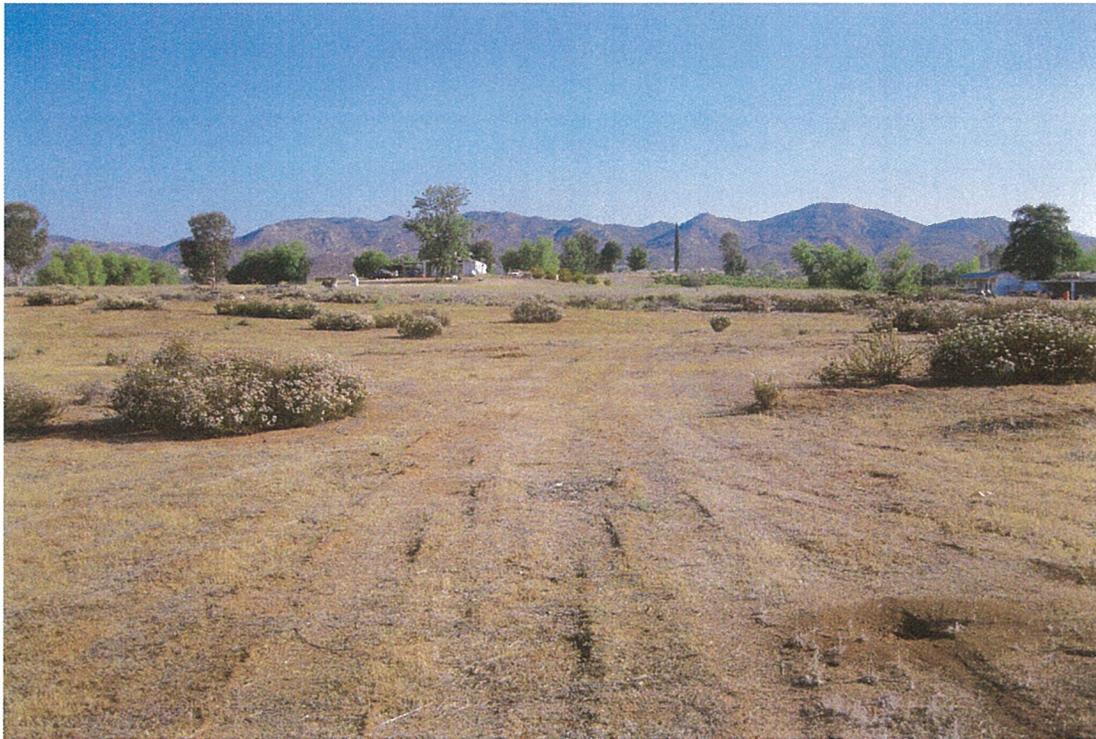


FIGURE 2
PROPERTY LOCATION
(Villa Siena, Wildomar, CA)
(Source: USGS Murrieta, CA Quad., 1953; NTS)



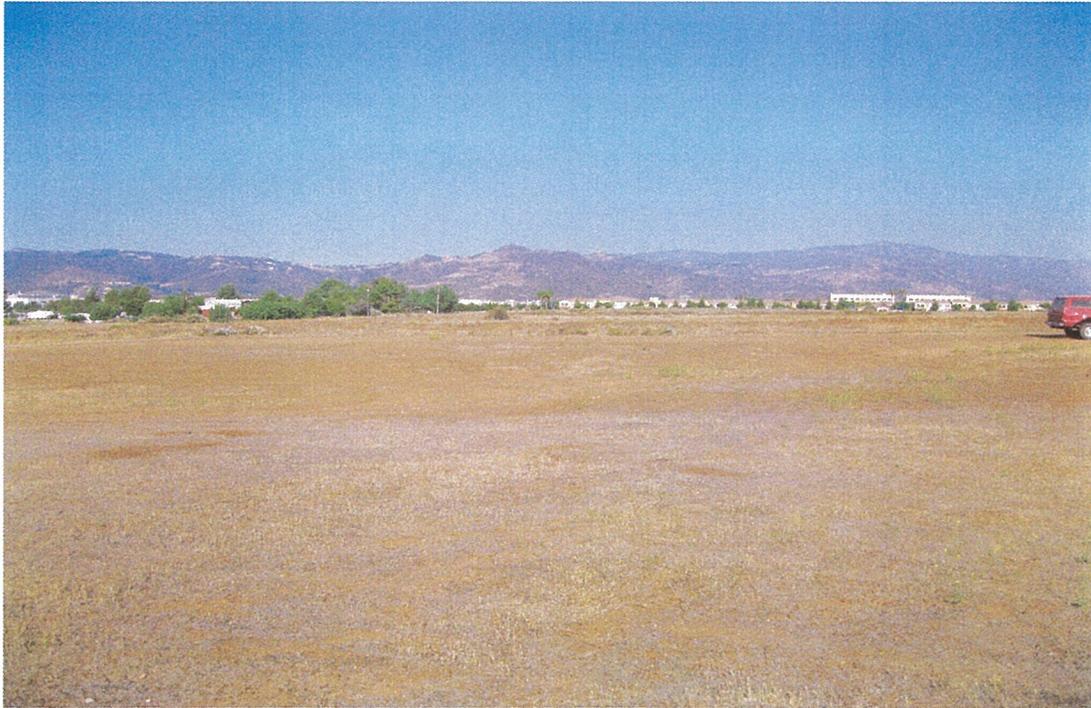


CENTER OF PROPERTY LOOKING NORTH



CENTER OF PROPERTY LOOKING EAST

FIGURE 3
SITE PHOTOGRAPHS
(VILLA SIENA PROJECT, WILDOMAR, CALIFORNIA)

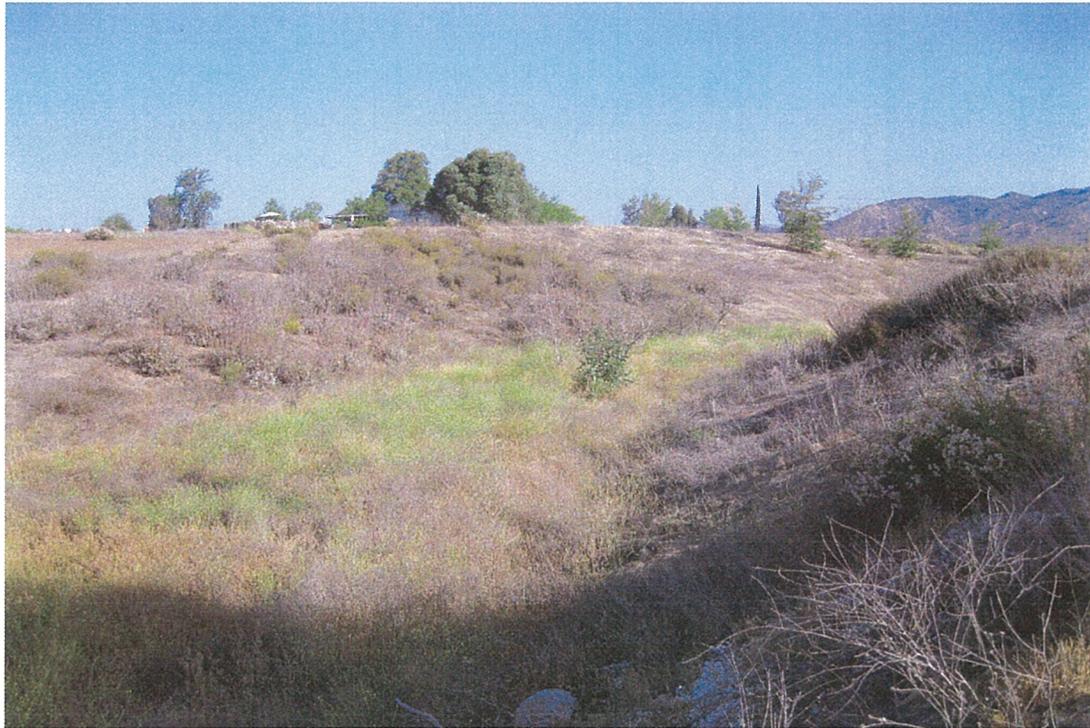


CENTER OF PROPERTY LOOKING WEST

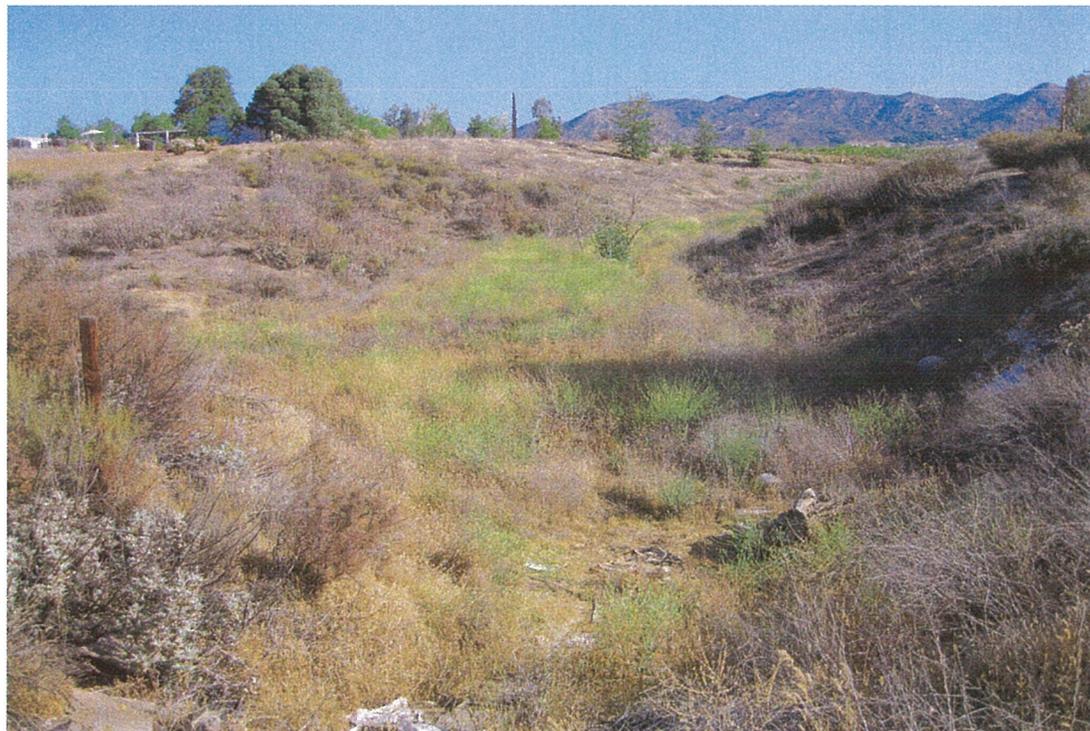


CENTER OF PROPERTY LOOKING SOUTH

FIGURE 3, cont.
SITE PHOTOGRAPHS
(VILLA SIENA PROJECT, WILDOMAR, CALIFORNIA)



VIEW OF SWALE LOOKING NORTHWEST FROM SOUTHERN TERMINUS



VIEW OF SWALE LOOKING NORTH FROM SOUTHERN TERMINUS

FIGURE 3, cont.
SWALE LOCATED IN EASTERN PORTION OF SITE
(VILLA SIENA PROJECT, WILDOMAR, CALIFORNIA)

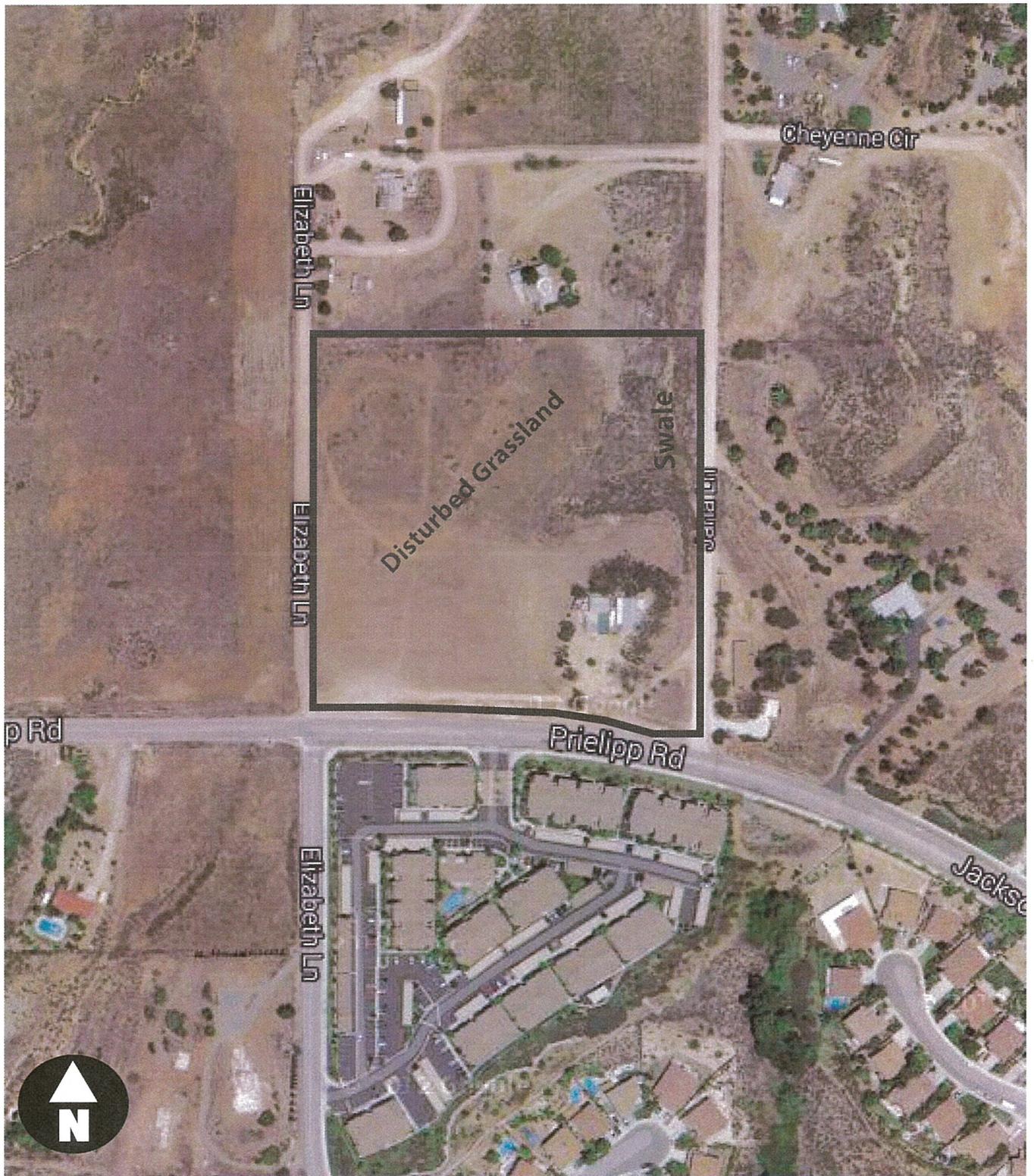


FIGURE 4
AERIAL VIEW OF SITE
(VILLA SIENA PROJECT, WILDOMAR, CA)



FIGURE 4, cont.
AERIAL VIEW OF SWALE
(VILLA SIENA PROJECT, WILDOMAR, CA)

PARCEL 3

PM 66132 APN 380290006

N89°26'55"W 660.12'

5' P.U.F.

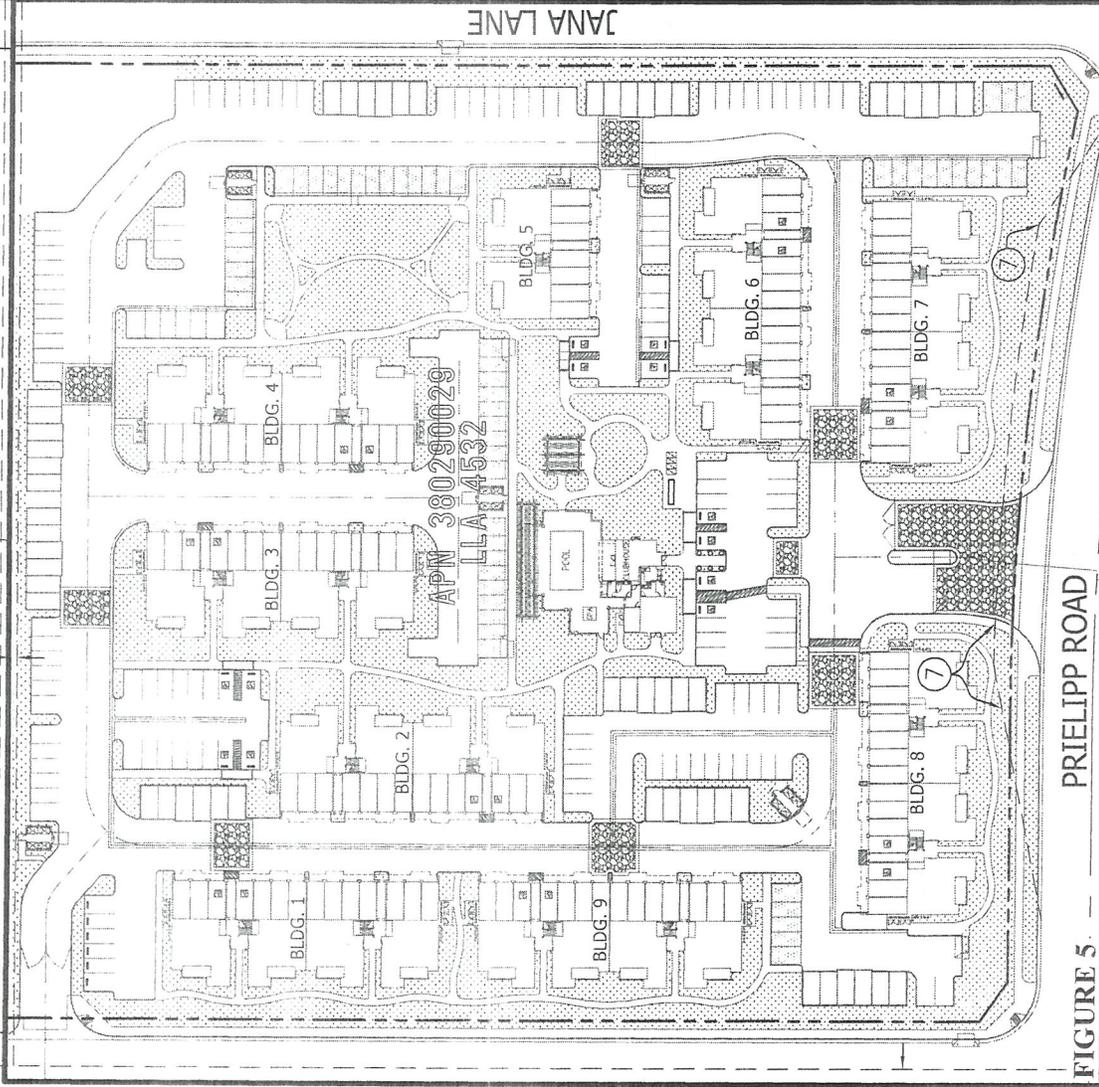
PARCEL 2

APN 380290005

N00°24'40"E 660.12' ELIZABETH LANE

PARCEL 4 PM 58/1-5

8' 10'



JANA LANE

APN 380290029 LLA 4532

N00°24'40"E 660.12'

N00°24'50"E 660.15'

PARCEL 4 PMB 66/30

APN 380-290-016

PARCEL 2 LLA 4532

APN 380-290-027

N40°00'06"W 26.90'

PRIELIPP RD

A=2'49'31"
R=1830.00'
L=90.24'

N89°26'46"W 589.70'

PRIELIPP ROAD

FIGURE 5

APPENDIX B

TABLES

Table 1: Plant species observed on the site and/or in adjacent areas.

Common Name	Scientific Name	Comments
Annuals		
Snakeweed	<i>Gutierrezia sarothrea</i>	G
Phlox-leaved bedstraw	<i>Galium matthewsii</i>	DS
Bladderpod	<i>Isomeris arborea</i>	DS
Fiddleneck	<i>Amsinckia tessellata</i>	T
Black mustard	<i>Brassica nigra</i>	T
Thistle	<i>Centaurea solstitialis</i>	DS
Common muilla	<i>Muilla maritime</i>	DS
Wild buckwheat	<i>Eriogonum gracile</i>	G
Spotted spurge	<i>Chamaesyce maculata</i>	T
Brome grass	<i>Bromus sp.</i>	T
Onion grass	<i>Melica frutescens</i>	T
Matthews bedstraw	<i>Galium matthewsii</i>	DS
Pearly everlasting	<i>Gnaphalium californicum</i>	DS
Perennials		
Narrow-leaved bedstraw	<i>Galium angustifolium</i>	DS
Chamise	<i>Adenostoma fasciculata</i>	DS
Mugwort	<i>Artemisia douglasii</i>	DS
Bush chinquapin	<i>Chrysolepis sempervirens</i>	DS
Pussy toes	<i>Antemmaria sp.</i>	DS
Cholla	<i>Opuntia sp.</i>	DS
Tree tobacco	<i>Nicotiana glauca</i>	DS
Buckwheat	<i>E. fasciculatum</i>	T
Elderberry	<i>Sambucus mexicana</i>	DS
White sage	<i>Salvia apiana</i>	DS
Spikemoss	<i>Selaginella sp.</i>	DS

Source: Munz, P.A. 1974. A Flora of Southern California. University of California Press. Berkeley, California. 1086 pp.

Legend: G = Occurs in grassland community.

DS = Occurs in drainage swale.

T = Occurs throughout site.

Table 2: Wildlife species observed on the property and/or known to occur in the immediate area. (Note: The following list is not intended to be a comprehensive list of every species which may occur on the site or in the immediate surrounding area.)

Common Name	Scientific Name	Comments
Mammals		
Desert cottontail	<i>Sylvilagus audubonii</i>	Common throughout area.
California ground squirrel	<i>Spermophilus beecheyi</i>	“
Coyote	<i>Canis latrans</i>	Scats observed on-site.
Deer mouse	<i>Peromyscus maniculatus</i>	May occur on-site.
California mouse	<i>P. californicus</i>	“
Botta’s pocket gopher	<i>Thomomys bottae</i>	“
Birds		
Raven	<i>Corvus corax</i>	Observed on-site.
Crow	<i>C. brachyrhynchos</i>	“
Rock dove	<i>Columba livia</i>	“
Mourning dove	<i>Zenaida macroura</i>	“
Western kingbird	<i>Tyrannus verticalis</i>	“
House finch	<i>Carpodacus mexicanus</i>	“
American goldfinch	<i>Carduelis tristis</i>	“
Violet-green swallow	<i>Tachycineta thalassina</i>	“
Lark sparrow	<i>Chondestes grammacus</i>	“
House sparrow	<i>Passer domesticus</i>	“
Red-tailed hawk	<i>Buteo jamaicensis</i>	Observed in surrounding area.
European starling	<i>Sturnus vulgaris</i>	“
California quail	<i>Callipepla Californica</i>	“
Sage sparrow	<i>Amphispiza belli</i>	“
Costa hummingbird	<i>Calypte costae</i>	“
Northern mockingbird	<i>Mimus polyglottos</i>	“
Western meadowlark	<i>Sturnella neglecta</i>	“
American robin	<i>Turdus migratorius</i>	“
Anna’s hummingbird	<i>Calypte anna</i>	“
Brewer’s blackbird	<i>Euphagus cyanocephalus</i>	“
Savannah sparrow	<i>Passerculus sandwichensis</i>	“
Tree swallow	<i>Tachycineta bicolor</i>	“
Reptiles and Amphibians		
Side-blotched lizard	<i>Uta stansburiana</i>	Observed on site.
Western fence lizard	<i>Sceloporus occidentalis</i>	“
Granite spiny lizard	<i>Sceloporus orcuttii</i>	May occur on-site.
Gopher snake	<i>Pituophis melanoleucus</i>	“
Common garter snake	<i>Thamnophis sirtalis</i>	“
Western toad	<i>Bufo boreas</i>	“

SOURCES:

- (1) Blair, W.F. 1968. Vertebrates of the United States. McGraw-Hill, Inc. New York. 616 pp.
- (2) Whitaker, J. O. 1980. The Audubon Society Field Guide to North American Mammals. A. A. Knopf, New York. 745 pp.
- (3) NGS. 1987. Field Guide to the Birds of North America. The National Geographic Society. 464 pp.

C.2 - DBESP for Riparian/Riverine Habitat

DETERMINATION OF BIOLOGICAL EQUIVALENT OR SUPERIOR PRESERVATION (DBESP) FOR RIPARIAN/RIVERINE HABITAT

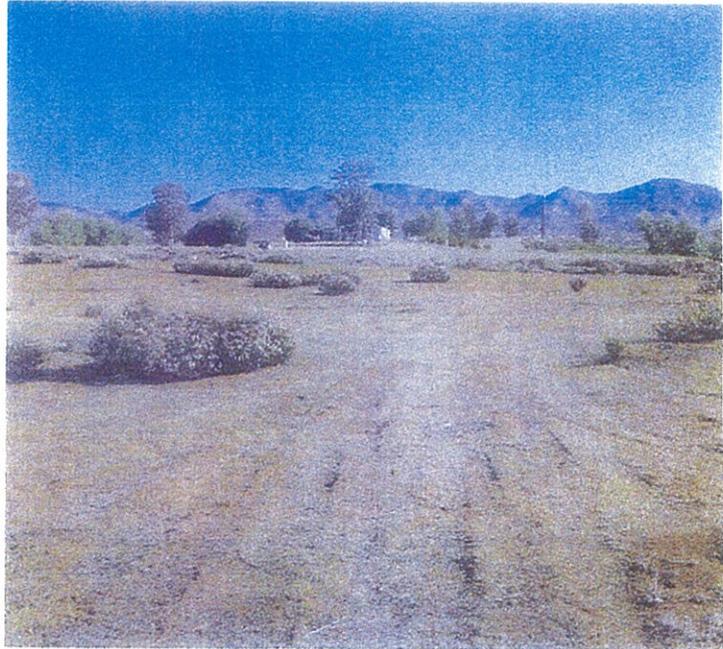
**VILLA SIENA PROJECT
WILDOMAR, CALIFORNIA
TOWNSHIP 7 SOUTH, RANGE 3 WEST,
SECTION 6
APN 380-290-029**

Prepared for:

**Golden Eagle Multi-Family
Properties, LLC
6201 Oak Canyon, Suite 250
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Prepared by:

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Principal Investigators:
Randall Arnold, Project Biologist
Patricia Moore, Senior Botanist**



Project Number: #2014-66D

Report Prepared: January 27, 2015

RCA ASSOCIATES, LLC

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1.0 SUMMARY

This report provides the result of a Biological Equivalent or Superior Preservation (DBESP) Analysis performed for a 10-acre property located in Wildomar, California (Figures, 1, 2, 3, 4, and 5; Appendix A). This DBESP was required because the proposed project will impact a small drainage swale in the northeast corner of the property. Due to the small size of the property and the project design constraints, there is no feasible alternative which would allow for avoidance of the swale. This report is being submitted to the City of Wildomar and will be forwarded to the Western Riverside Regional Conservation Authority (WRCA).

This analysis was conducted to determine the impacts which will occur to the small riparian/riverine habitat as required under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), and to demonstrate that the proposed mitigation would provide an equivalent or superior preservation of habitat function and value of Riparian/Riverine resources. The property consist of approximately 10-acres of vacant land which supports disturbed grassland habitat throughout most of the site except for a small drainage area (~5,000 square feet [0.1-acres]) in the northeast corner of the site. The entire drainage swale covers approximately 16,250 square feet (~0.37-acres); however, only about 5,000 square feet (0.1-acres) are located within the boundaries of the Villa Sienna property (Figure 5)

The proposed project includes an apartment complex consisting of nine three-story buildings with 20 units in each building for a total of 170 apartments. A one-story building will also be constructed and will house the clubhouse and pool/spa. The proposed project would also include the necessary infrastructure for the proposed development including streets, sewer, utility lines, and parking.

This assessment was conducted as part of the MSHCP consistency analysis for the proposed project pursuant to MSHCP Section 6.2.1. As required by MSHCP, a DBESP Analysis must be conducted to address impacts to Riparian/Riverine or Vernal Pool habitat associated with a specific project, and must include an evaluation of whether the proposed project is biologically equivalent or superior to the baseline conditions. The DBESP Analysis presented in this report includes a detailed discussion of riparian/riverine habitat onsite that will be impacted by the proposed development. In addition, the report summarizes avoidance, minimization, and mitigation measures that will be implemented to offset these impacts and bring the impacts to a level of less than significant.

Based on the results of the DBESP analysis outlined in this report, the proposed project would be biologically equivalent or superior to the baseline conditions because the mitigation measures summarized in this report will provide mitigation which will replace the lost functions and values. The project proponent will provide off-site mitigation in coordination with the Elsinore Murrieta-Anza Resource Conservation District (EMARCD), City of Wildomar, and CDFW. Prior to approval of the project, CDFW shall approve the location of the proposed mitigation acreage. The mitigation area would be maintained in order to meet the Urban/Wildlife interface guides as recommended for drainage, toxics, lighting, noise, invasive plant species, and barriers.

2.0 INTRODUCTION

2.1 PROJECT LOCATION

This project site (APN 380-290-029) is located at the northeast corner of Prielipp Road and Elizabeth Lane (Section 6, Township 7 South, Range 3 West) in the southern portion of the City of Wildomar, Riverside County, California (Figures 1, 2, and 3). The project site can be accessed from I-15 by exiting on Clinton Keith Road and traveling east, then going south on Inland Valley Drive, then east on Prielipp Road and then north on Elizabeth Lane. The project site is located on the east side of Elizabeth Lane. The property is located within the Lake Elsinore Area Plan and the site is not located within any Criteria Cells according to the MSHCP (2003). The site is about 1.5 miles northeast of Existing Core F, 1.5 miles southeast of proposed linkage 8 and approximately 0.5 miles south of Criteria Cell 5558. Elevations range from about 1,300 to 1,320 feet above mean sea level (MSL), according to the Murrieta, California USGS 7.5-minute Topographic Quadrangle map (1953).

2.2 PROJECT DESCRIPTION

The proposed Villa Siena Project is an apartment complex consisting of 170 units (Proposed R-3 residential zoning) which would encompass the entire 10-acre site (Figure 5). Nine buildings would be located throughout the site with 20 units per building (Figure 5). Parking lots adjacent to the building would also be constructed and a single-level clubhouse with associated spa and pool would be located in the center of the site. Various infrastructures would also be a component of the development including streets, sewer, and utility lines.

3.0 METHODOLOGY

3.1 LITERATURE REVIEW

Pertinent environmental documents were reviewed prior to initiation of the DBESP analysis. Documents reviewed included, but were not limited to, sensitive species occurrence maps, Riverside County MSHCP maps/data, data from the California Department of Fish and Wildlife (CDFW) Natural Diversity Database (2014), and other DBESP reports prepared for other projects in the region (MBA, December 17, 2012 & BonTerra, February 14, 2008) Data from U.S. Fish and Wildlife (USFWS, 2014) was evaluated to determine if any wetlands have been documented on the site, and information on soils was reviewed (U.S. Department of Agricultural, 2014) to identify the soils on the property. Table 1 (Appendix B) provides a list of the plants identified within the drainage swale. The vegetation classification system used during the biological surveys and in this report is based on a classification system described by Holland (1986).

3.2 FIELD INVESTIGATION

A habitat assessment was conducted on the property to determine whether the site met the MSHCP consistency requirements as outlined in the MSHCP for Western Riverside County. Field investigations of the drainage swale were conducted in April, May, June and July 2013, and in August 2014. A separate General Biological Resources Assessment report was also prepared for the property and all plant and animal species observed were documented in the biological assessment and are also provided in Tables 1 and 2 (Appendix B).

Based on the results of the field investigations it was determined that there is one riparian/riverine drainage feature (swale) and located in the northeast corner of the site (Figures 4 and 5). The swale is part of a large watershed and water flows from Jana Lane enter the its northern point during major storm events. Ponding may occur during major storm events and drainage channels were noted within the swale indicating water flows

through the area during storms. Most water which flows into the area infiltrates into the relatively sandy soils. Based on soil characterizations conducted during the field investigations, the soils on the property appear be consistent with the classification of Yokohl loam [Ybc] indicated for the area by the U.S. Department of Agricultural (1971). The area consists of a narrow drainage swale which covers a total area of about 16,250 square feet (~0.37-acres), with only about 5,000 square feet (0.1-acres) located within the boundaries of the project site. The remaining portion of the swale is located immediately north of the project site.

3.3 INFEASIBILITY OF AVOIDANCE OF RIPARIAN/RIVERINE HABITAT

The Western Riverside MSHCP typically recommends against the use and/or disturbance of riparian/riverine resources; however, such avoidance is not feasible for the proposed project. The developer's design constraints, the required improvements to Jana Lane, the small size of the site, and financial considerations make avoidance of the drainage swale in the northeast corner impossible.

Road Improvements: The area north of the project drains into an existing swale that runs parallel to and west of Jana Lane. The swale is approximately 45 feet west of the centerline of Jana Lane and is about 15 feet below the roadway surface. Jana Lane is currently a 12 feet wide dirt road which will need to be improved to the ultimate condition as a collector street, as required by the City's Circulation Element. As such, the total curb-to-curb width will be 56 feet and the total right-of-way width will be 78 feet. One of the conditions of this project is to improve Jana Lane along the project's east frontage to its full half width section in compliance with the collector street designation. Beyond the north property boundary, the street will transition horizontally to meet the undeveloped portion of Jana Lane. Construction of the ultimate street half-width at 39 feet with a down slope at 2:1 inclination will result in the toe of slope at 30 feet from the

right-of-way, or 25 feet west of the swale. This will result in significant impacts to the entire drainage swale within the boundaries of the property. The existing swale would need to be filled as a result of creating a profile for Jana Lane that meets acceptable design standards for site distance. In addition, the western edge of the swale would be impacted during subsequent grading of the site in order to create a balanced earthwork scenario. Furthermore, future extension of Jana Lane north of the project site would also require a half-width of 39 feet from the centerline which would also impact the existing swale.

Financial: In addition to the limitations imposed by the required road improvements along Jana Lane, revising the project design to avoid the drainage swale would create a significant adverse financial impact. Eliminating any development within the 0.1-acre swale (approximately 5,000 square feet), would result in elimination of residential units, approximately 50 parking spaces, and the proposed retention area in the northeast corner of the site. The impact of this loss would be significant and would result in a substantial decrease in the project's marketability.

The developer's research indicates a growing need for affordable, family-friendly housing in the city of Wildomar, and as such, the proposed project was designed to provide an affordable option for individuals and families in the rental market. As noted above, avoiding the drainage swale would eliminate several units which will adversely affect the planned mix of available unit types, which has been designed to fit the demographics of the city. If these units were eliminated, the costs of the development would need to be spread over fewer total units. This would result in a mix of units more heavily concentrated on smaller units, which would result in the project being economically infeasible. In addition, the financial burden added to the project by the required Jana Lane upgrades, along with the elimination of units, would create an imbalance within the cost to unit ratio, which would ultimately result in a significant increase in rental costs. This would result in an adverse impact to the financial viability of the project and result in a reduced incentive in moving forward with the project.

4.0 Determination Biological Equivalent or Superior Preservation (DBESP) Analysis

4.1 Description of Pre-Project Riparian/Riverine Functions and Values

Riparian/riverine areas are defined as “Lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year (Dudek & Associates, 2003).” Based on this definition, the drainage swale in the northeast corner of the site meets the criteria. The swale supports a moderately dense stand of vegetation consisting of various shrubs and herbaceous species; however, the overall functional value of the swale is expected to be relatively low. Table 1 provides a list of all plant species identified in the swale with phlox-leaved bedstraw (*Galium matthewsii*), bladderpod (*Isomeris arborea*), and pearly everlasting (*Gnaphalium californicum*) some of the more common annuals, and chamise (*Adenostoma douglasii*), tree tobacco (*Nicotiana glauca*), white sage (*Salvia apiana*), and elderberry (*Sambucus mexicana*) the common perennials.

As previously indicated, the swale conveys water in a southerly direction during rainstorms; however, most water which enters the swale via Jana Road and/or from rainfall infiltrates into the soils. Water flowing into the swale has cut several shallow channels as depicted in Figure 5. Subsurface water flows from the swale may also enter a large swale immediately southeast of the property and on the east side of Jana Road (Figures 4 and 5). This drainage swale connects to a blueline channel south of Prielipp Road via a culvert under Prielipp Road. A relatively well-developed riparian habitat is also located south of Prielipp Road and water from the swale on the Villa Sienna site may eventually enter this riparian habitats south of the project site via subsurface flows.

4.2 Existing Vegetation

Plant surveys were conducted during April, May and June 2013 when most of the plant

species were readily identifiable. A disturbed grassland community covers most of the site (~7.75 acres). The drainage swale in the northeast corner covers about 0.1-acres and areas adjacent to the swale support about 0.25 acres of shrub habitat. A residential/disturbed area (~1.9 acres) is located in the southeast corner (Figure 4). No other sensitive habitats (e.g., coastal sage scrub, vernal pools, etc.) were noted during the field investigations.

Common perennials on the property included narrow-leaved bedstraw (*Galium angustifolium*), bladderpod (*Isomeris arborea*), chamise (*Adenostoma fasciculatum*), bush chinquapin (*Chrysolepis sempervirens*), dodder (*Cuscuta* sp.), elderberry (*Sambucus mexicana*), and tree tobacco (*Nicotiana glauca*). Annuals consisted of fiddleneck (*Amsinckia tessellata*), common muilla (*Muilla maritima*), pearly everlasting (*Anaphalis margaritacea*), snakeweed (*Chamaesyce prostrata*), onion grass (*Melica frutescens*), bentgrass (*Agrostis exarata*), and brome grass (*Bromus sterillis*) (Figure 3). Table 1 provides a list of all of the plants that were identified during the field investigations. The vegetation in the entire swale area (on-site and off-site) covers a relatively small area (~0.2 acres) and there is no direct connectivity with other areas which support extensive riparian/riverine habitats. However, there may be a subsurface connection with a large drainage channel located immediately southeast of the project site. The large drainage channel connects with a blue-line channel located south of Prielipp Road which supports extensive areas of riparian/riverine habitat.

Based on the existing conditions within the swale on the Villa Sienna property, the swale is not expected to support suitable nesting or foraging habitat for riparian/riverine species associated with this type of habitat (MSHCP, Section 6.1.2). A search of the NDDDB (CDFW, 2014) did not reveal any special status species on the project site or in immediate adjacent areas. As previously indicated, the swale is relatively narrow and is located on a property which has been somewhat disturbed in the past and is in an urban area in the City of Wildomar. Therefore, the swale does not support woodland habitat considered

suitable for various special status species documented in the general area, including least Bell's vireos, southwestern willow flycatchers, and western yellow-billed cuckoos. These species are typically found in large expansive areas of riparian woodlands in undisturbed areas (CDFW, 1990a). No focused surveys were performed for sensitive wildlife species; however, 30-day a pre-construction survey for the burrowing owl (California species of special concern) will be required by CDFW prior to the initial site clearing/grading activities. This survey will be necessary to determine if owls have moved onto the site since the original field investigations conducted in July 2013.

4.3 Urban/Wildlife Interface Guideline

Urban/Wildlife Interface Guidelines will be incorporated into the project design to ensure indirect impacts to riparian/riverine habitat associated with the project will be minimized as much as possible.

Drainage: There are approximately 17.9-acres of off-site drainage area north of the proposed project. Currently undeveloped, the surface runoff from this area is concentrated in a deep swale along the west side of Jana Lane. Under minor storm events, the collected runoff is contained in this deep swale and either percolates into the ground and/or evaporates upon completion of the storm event. For larger storms, collected runoff will fill the swale and top Jana Lane, spilling into another deep ravine on the east side of Jana Lane. This deep swale runs along the north side of an existing residence east of Jana Lane and ultimately outlets into a pipe that crosses underneath Prielipp Road and terminates in a stormwater basin on the south side of Prielipp Road. The proposed Villa Siena Project will intercept the existing flow at the north project boundary and will transmit this flow into the previously described swale on the east side of Jana Lane via an adequately sized underground stormdrain system, sized to prevent any flooding of the proposed Villa Siena Project or surrounding properties.

Toxics: The project will not use any toxic chemicals or generate any toxic byproducts. However, the project will be subject to the Riverside County Water Quality Management Plan for Urban Runoff which was adopted September 17, 2004. The project will also be subject to the National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharges Associated with Construction Activity (General Permit) Water Quality Order 99-08-DWQ. When the WQMP and the NPDES general permit are implemented for the project, potential impacts to the area from toxics will be reduced to a level of less than significant.

Lighting: Lighting around the various apartment buildings and parking lots will adhere to the required standards of the City of Wildomar. Lighting will be directed in such a way as to minimize impacts to surrounding areas.

Noise: The current ambient noise levels in the area are already relatively high due to daily street noise along Prielipp Road. Once construction is completed, the proposed project is not expected to cause a significant increase in noise levels to any MSHCP Conservation Areas. Noise from the project will be confined to daily traffic to and from the site. Some additional noise may be generated by air conditioners and landscaping equipment.

Invasive Plant Species: No invasive plants that are listed in the MSHCP (Table 6.2) will be included as part of any landscaping plans developed for the project.

Barriers: Fences, rocks/boulders, walls, signage, or any other measures will be included in the project design in order to minimize unauthorized public access, domestic predation (i.e., dogs and cats), or illegal trespass on the property.

Grading/Land Development: The proposed grading will impact about 5,000 square feet of riparian/riverine habitat located in the northeast portion of the site. However, off-site mitigation lands will be restored and enhanced, and set aside in perpetuity to compensate for the loss of the on-site riparian/riverine habitat.

Fuels Management: No fuel management will be required for this project.

4.4 Determination of Biological Equivalent or Superior Preservation

The City of Wildomar is a participant in the MSHCP; therefore, impacts to riparian/riverine habitat associated with this project will be fully mitigated for through the implementation of the mitigation measures outlined below.

Mitigation Measure #1: The proponent will coordinate with CDFW in order to provide off-site mitigation for the on-site impacts. Mitigation will be located off-site due to limitations on the project site. Specifically, the proponent is coordinating with the Elsinore Murrieta-Anza Resources Conservation District (EMARCD) and is proposing to restore and enhance riparian/riverine habitat along existing drainages on a mitigation site owned by EMARCD, and located along Clinton Keith Road in Riverside County. Mitigation will be at a rate of 2:1 and approximately 10,000 square feet of riparian/riverine habitat will be restored and enhanced. The proposed mitigation will ensure a net gain of riparian/riverine habitat acreage. A detailed restoration plan will be prepared in coordination for approval by the City and the resources agencies. The Plan will provide a schedule for site preparation and planting, and maintenance and monitoring requirements will also be outlined in the Plan. Performance standards will include: (a) increase the canopy cover of native riverine vegetation within the mitigation area by 25 percent with 80 percent survival of planted species after five years following installation, and (b) increase coverage of herbaceous vegetation within the mitigation areas by 25 percent after five years following installation.

Mitigation Measure #2: The Urban/Wildlands Interface Guidelines will be implemented to ensure all indirect impacts to off-site drainage channels and associated riparian/riverine habitats downstream will be minimized to the greatest extent possible.

Mitigation Measure #3: Pre-construction surveys will be performed for the burrowing owl as per CDFW survey protocols immediately prior to the start of site grading/clearing

to verify the presence or absence of the species. A survey report will be prepared within seven days following completion of the survey and will be submitted to the City for their review. If the species is observed during the pre-construction surveys, mitigation measures required by CDFW and the MSHCP will be implemented following consultations with CDFW and the City.

Mitigation Measure #4: All Best Management Practices (BMP), as well as measures required by the NPDES requirements, will be implemented to ensure that the quantity and quality of runoff from the site is not altered in a significant way when compared to existing conditions. Stormwater systems for the project will be designed to prevent toxins, chemicals, petroleum products, and other toxic substances from entering any adjacent drainage channels which could potentially impact downstream riparian/riverine habitats.

4.5 Demonstration of Increased in Post-Project Riparian/Riverine Functions and Values

Removal of 5,000 square feet of marginal riparian/riverine habitat in the northeast corner of the property would not be considered a significant loss in and by itself due to the low functional value of the swale. However, cumulative impacts to riparian/riverine habitat in the region are of significant concern. Incremental loss of riparian/riverine habitat could have a significant long-term adverse impact. Therefore, implementation of the above mitigation measures (See Section 4.4) would ensure a net gain of riverine habitat acreage in the region. Restoration and enhancement of riparian/riverine habitat on the EMARCO mitigation site is expected to be biologically equivalent to allowing the existing riparian/riverine habitat from remaining in place, and may be considered superior to the existing low functions and values of the habitat within the swale. Furthermore, restoration of off-site riparian/riverine habitat would contribute to the long-term conservation and survival of riparian/riverine habitat in the region, and would also contribute to the protection of prime wildlife habitat in perpetuity.

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APPENDIX A

FIGURES

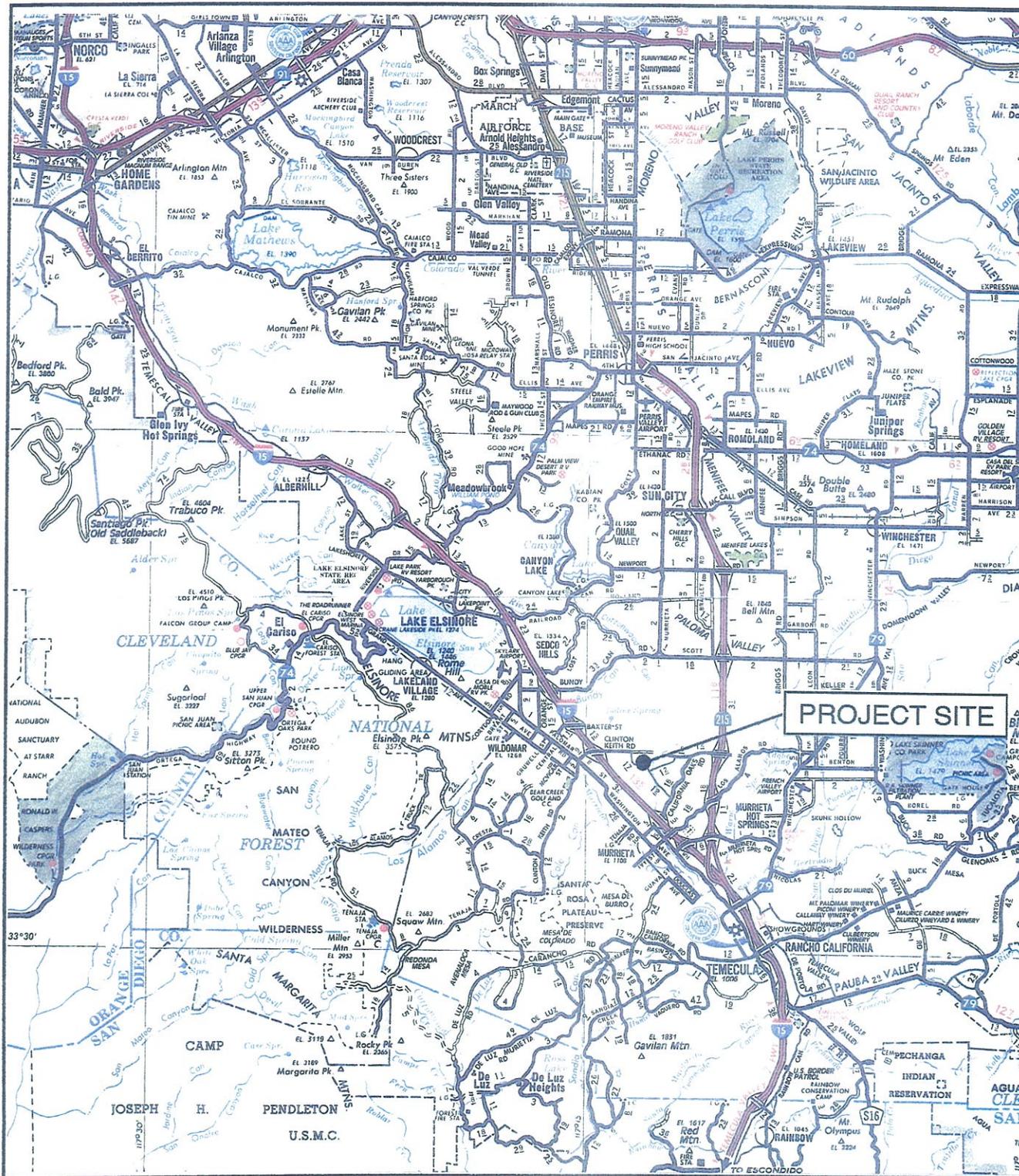


FIGURE 1
VICINITY MAP
 (Villa Siena, Wildomar, CA)
 (Source: ACSC Map Source, 2013; NTS)



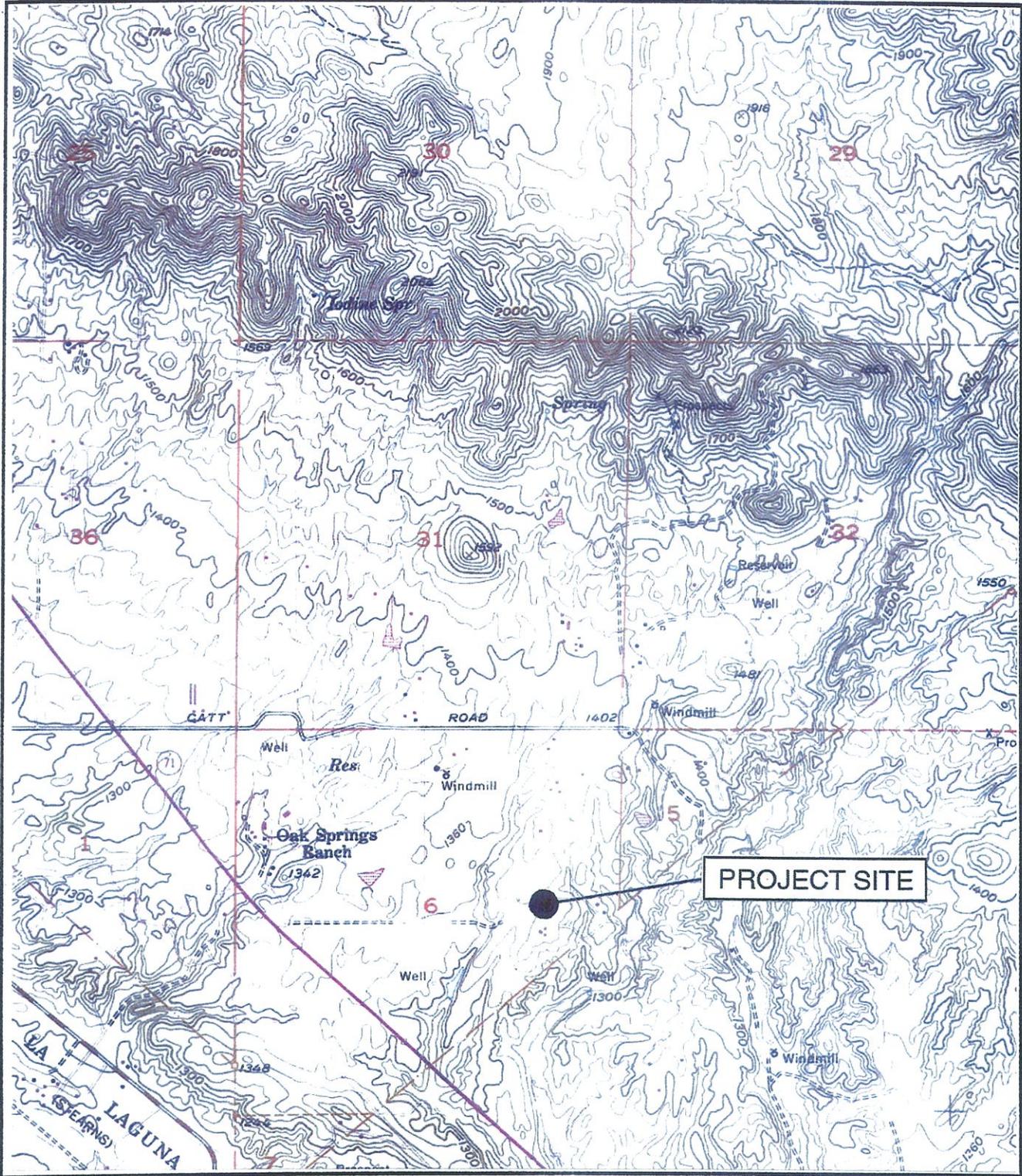
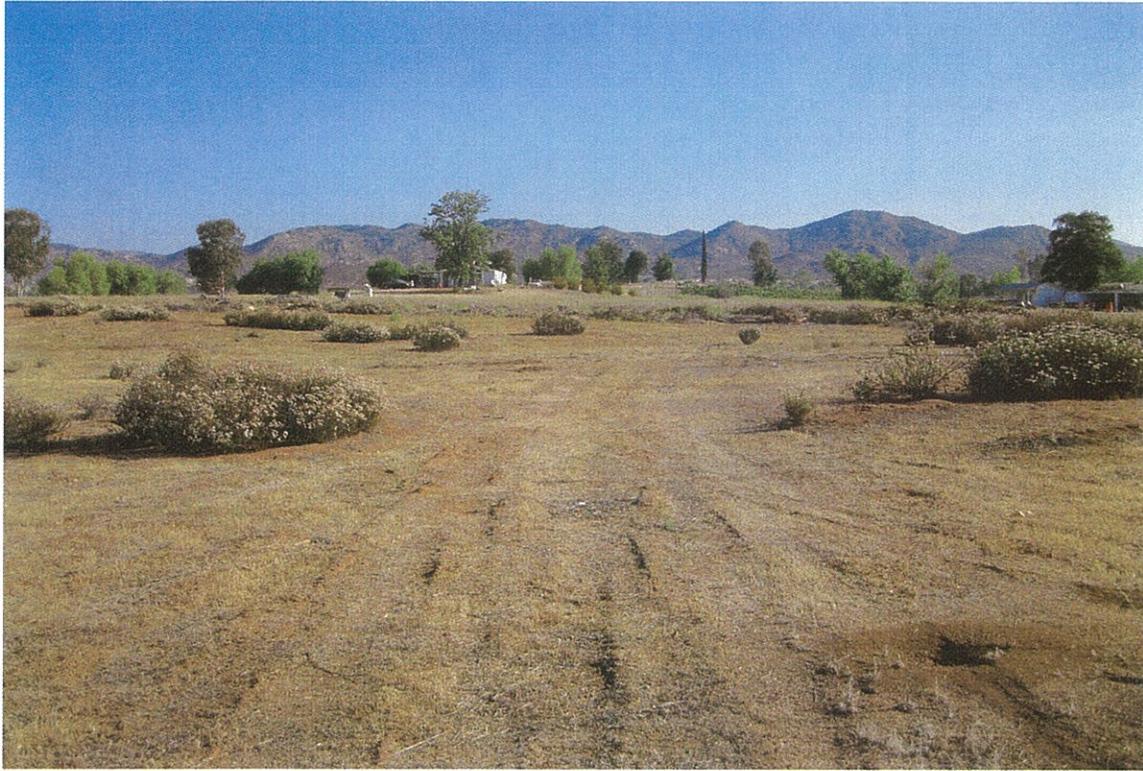


FIGURE 2
PROPERTY LOCATION
 (Villa Siena, Wildomar, CA)
 (Source: USGS Murrieta, CA Quad., 1953; NTS)



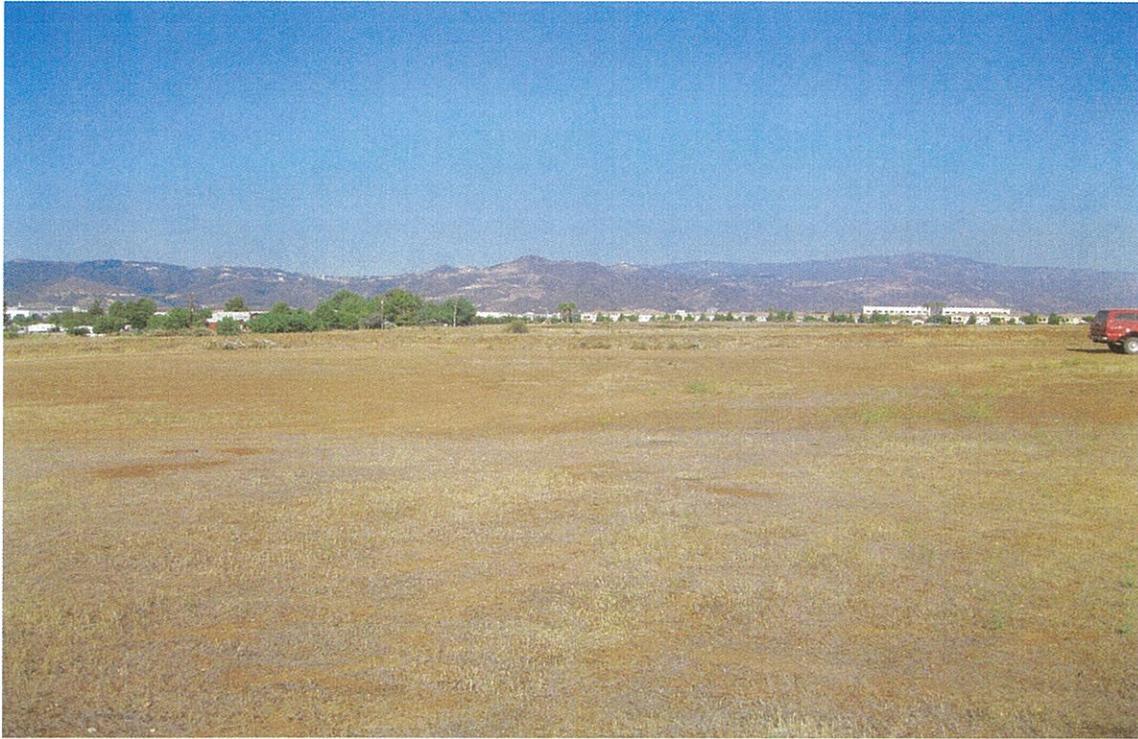


CENTER OF PROPERTY LOOKING NORTH



CENTER OF PROPERTY LOOKING EAST

FIGURE 3
SITE PHOTOGRAPHS
(VILLA SIENA PROJECT, WILDOMAR, CALIFORNIA)



CENTER OF PROPERTY LOOKING WEST

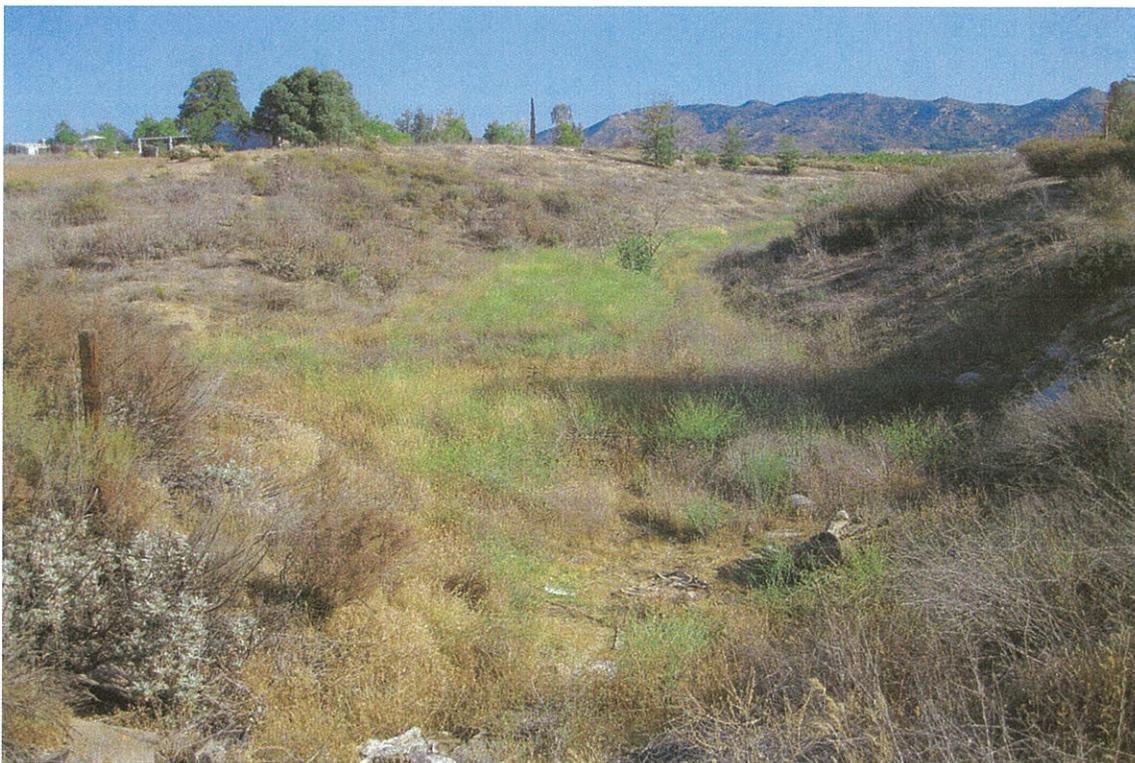


CENTER OF PROPERTY LOOKING SOUTH

FIGURE 3, cont.
SITE PHOTOGRAPHS
(VILLA SIENA PROJECT, WILDOMAR, CALIFORNIA)



VIEW OF SWALE LOOKING NORTHWEST FROM SOUTHERN TERMINUS



VIEW OF SWALE LOOKING NORTH FROM SOUTHERN TERMINUS

FIGURE 3, cont.
SWALE LOCATED IN EASTERN PORTION OF SITE
(VILLA SIENA PROJECT, WILDOMAR, CALIFORNIA)

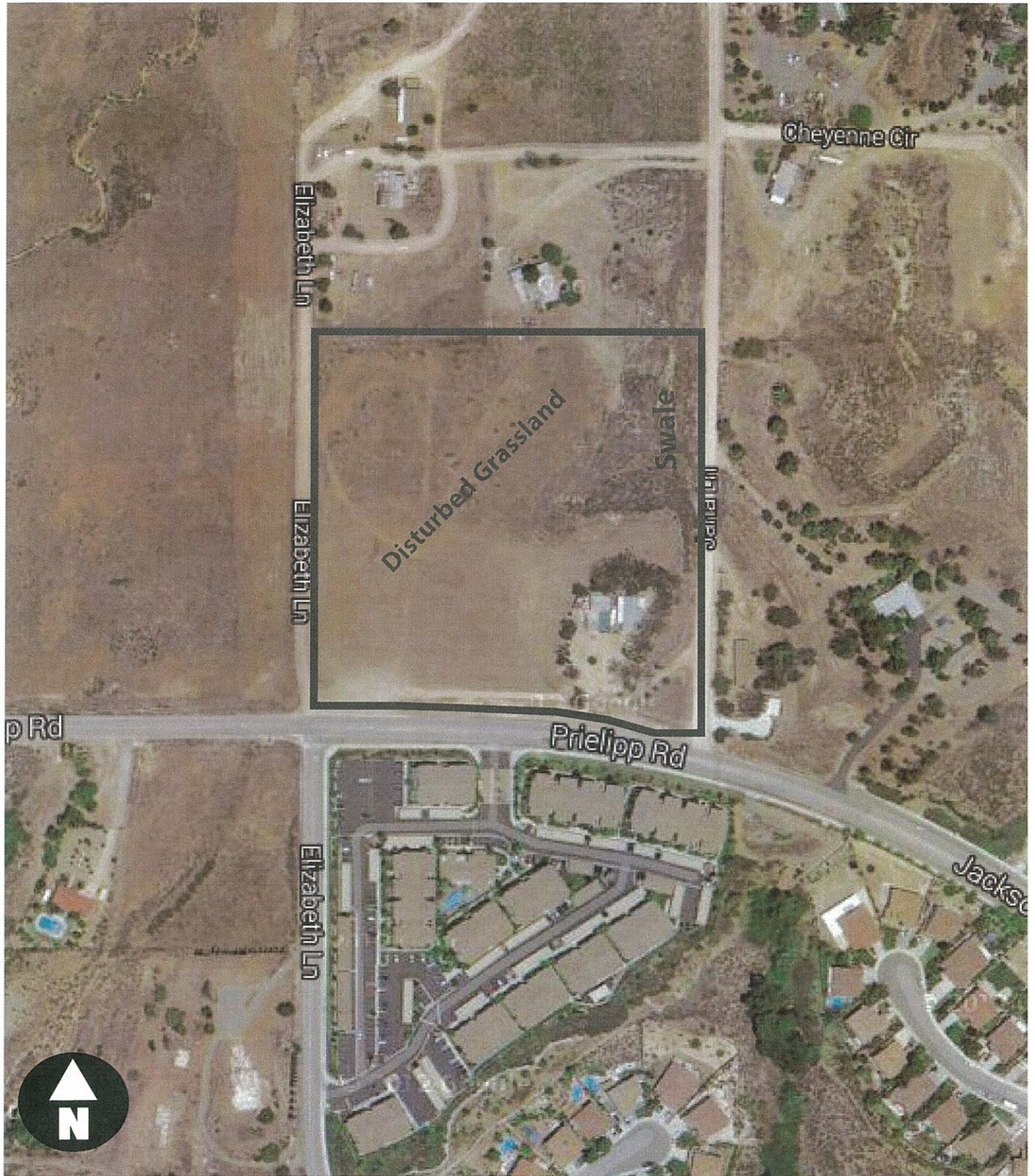
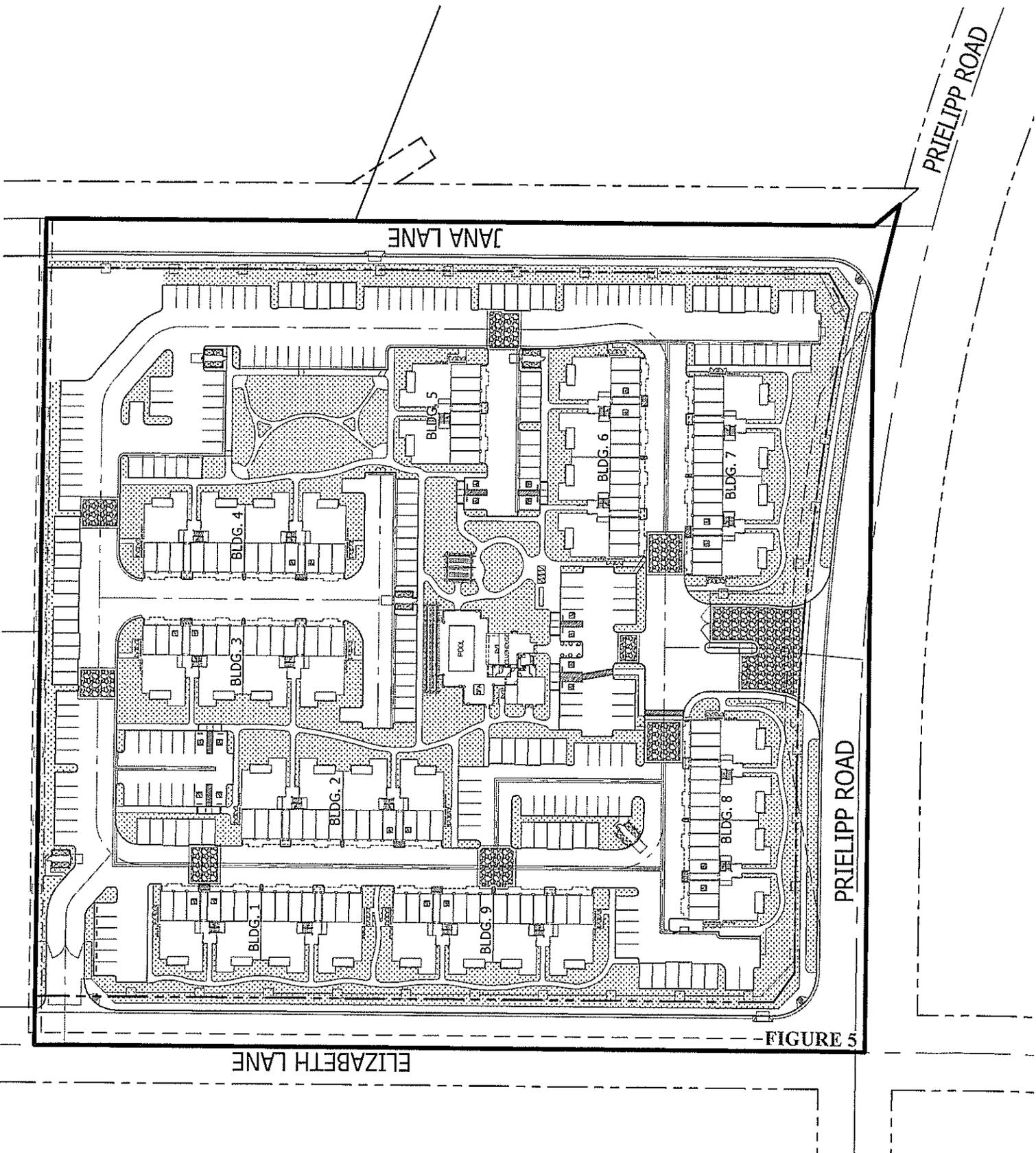


FIGURE 4
AERIAL VIEW OF SITE
(VILLA SIENA PROJECT, WILDOMAR, CA)



FIGURE 4, cont.
AERIAL VIEW OF SWALE
(VILLA SIENA PROJECT, WILDOMAR, CA)



JANA LANE

ELIZABETH LANE

PRIELIPP ROAD

PRIELIPP ROAD

FIGURE 5

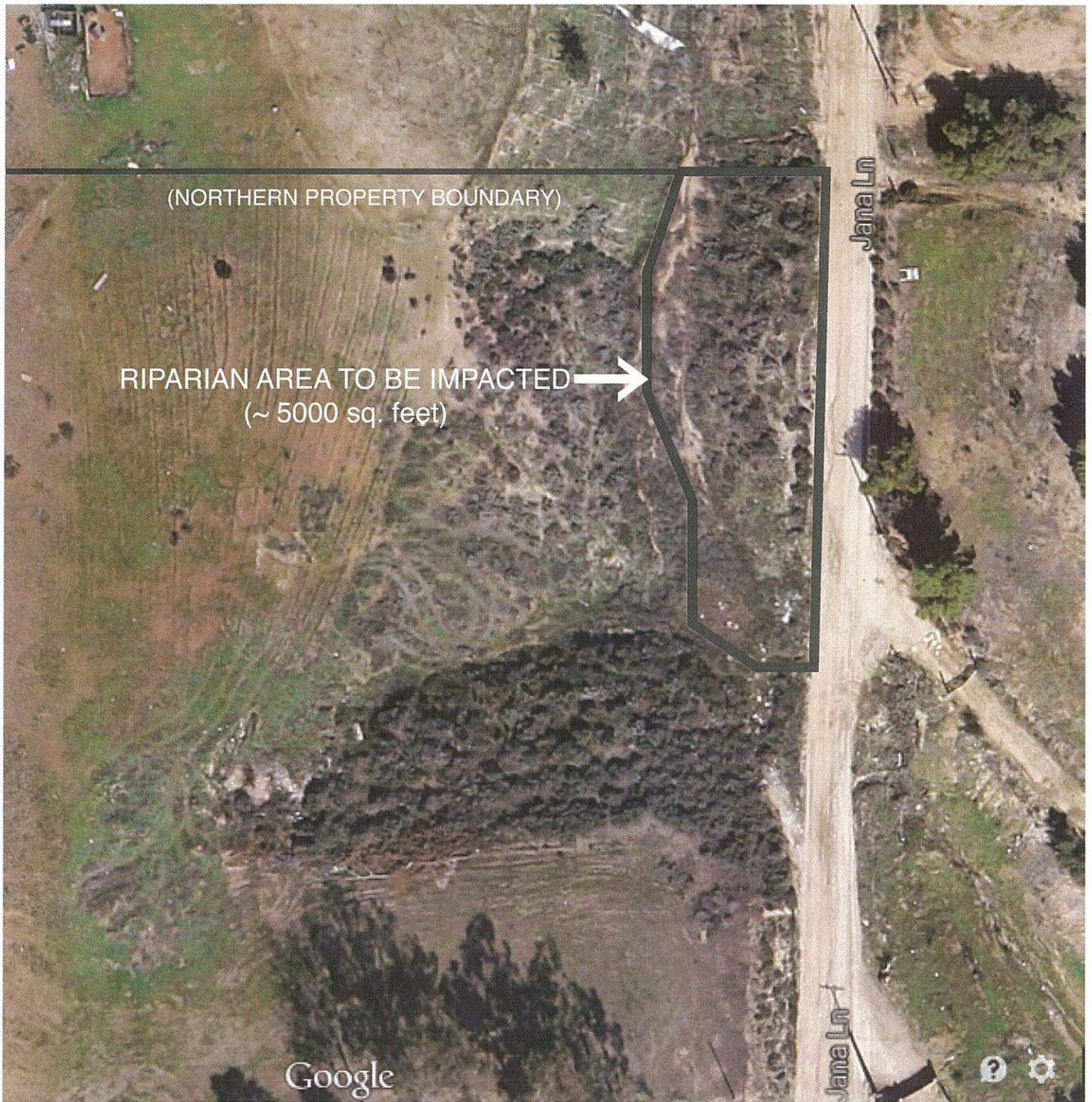


FIGURE 6
AERIAL VIEW OF RIPARIAN AREA

APPENDIX B

TABLES

Table 1: Plant species observed on the site and/or in adjacent areas.

Common Name	Scientific Name	Comments
Annuals		
Snakeweed	<i>Gutierrezia sarothrea</i>	G
Phlox-leaved bedstraw	<i>Galium matthewsii</i>	DS
Bladderpod	<i>Isomeris arborea</i>	DS
Fiddleneck	<i>Amsinckia tessellate</i>	T
Black mustard	<i>Brassica nigra</i>	T
Thistle	<i>Centaurea solstitialis</i>	DS
Common muilla	<i>Muilla maritime</i>	DS
Wild buckwheat	<i>Eriogonum gracile</i>	G
Spotted spurge	<i>Chamaesyce maculate</i>	T
Brome grass	<i>Bromus sp.</i>	T
Onion grass	<i>Melica frutescens</i>	T
Matthews bedstraw	<i>Galium matthewsii</i>	DS
Pearly everlasting	<i>Gnaphalium californicum</i>	DS
Perennials		
Narrow-leaved bedstraw	<i>Galium angustifolium</i>	DS
Chamise	<i>Adenostoma fasciculate</i>	DS
Mugwort	<i>Artemisia douglasii</i>	DS
Bush chinquapin	<i>Chrysolepis sempervirens</i>	DS
Pussy toes	<i>Antemmaria sp.</i>	DS
Cholla	<i>Opuntia sp.</i>	DS
Tree tobacco	<i>Nicotiana glauca</i>	DS
Buckwheat	<i>E. fasciculatum</i>	T
Elderberry	<i>Sambucus Mexicana</i>	DS
White sage	<i>Salvia apiana</i>	DS
Spikemoss	<i>Selaginella sp.</i>	DS

Source: Munz, P.A. 1974. A Flora of Southern California. University of California Press. Berkeley, California. 1086 pp.

Legend: G = Occurs in grassland community.
 DS = Occurs in drainage swale.
 T = Occurs throughout site.

Table 2: Wildlife species observed on the property and/or known to occur in the immediate area. (Note: The following list is not intended to be a comprehensive list of every species which may occur on the site or in the immediate surrounding area.)

Common Name	Scientific Name	Comments
Mammals		
Desert cottontail	<i>Sylvilagus audubonii</i>	Common throughout area.
California ground squirrel	<i>Spermophilus beecheyi</i>	“
Coyote	<i>Canis latrans</i>	Scats observed on-site.
Deer mouse	<i>Peromyscus maniculatus</i>	May occur on-site.
California mouse	<i>P. californicus</i>	“
Botta’s pocket gopher	<i>Thomomys bottae</i>	“
Birds		
Raven	<i>Corvus corax</i>	Observed on-site.
Crow	<i>C. brachyrhynchos</i>	“
Rock dove	<i>Columba livia</i>	“
Mourning dove	<i>Zenaida macroura</i>	“
Western kingbird	<i>Tyrannus verticalis</i>	“
House finch	<i>Carpodacus mexicanus</i>	“
American goldfinch	<i>Carduelis tristis</i>	“
Violet-green swallow	<i>Tachycineta thalassina</i>	“
Lark sparrow	<i>Chondestes grammacus</i>	“
House sparrow	<i>Passer domesticus</i>	“
Red-tailed hawk	<i>Buteo jamaicensis</i>	Observed in surrounding area.
European starling	<i>Sturnus vulgaris</i>	“
California quail	<i>Callipepla Californica</i>	“
Sage sparrow	<i>Amphispiza belli</i>	“
Costa hummingbird	<i>Calypte costae</i>	“
Northern mockingbird	<i>Mimus polyglottos</i>	“
Western meadowlark	<i>Sturnella neglecta</i>	“
American robin	<i>Turdus migratorius</i>	“
Anna’s hummingbird	<i>Calypte anna</i>	“
Brewer’s blackbird	<i>Euphagus cyanocephalus</i>	“
Savannah sparrow	<i>Passerculus sandwichensis</i>	“
Tree swallow	<i>Tacyicineta bicolor</i>	“
Reptiles and Amphibians		
Side-blotched lizard	<i>Uta stansburiana</i>	Observed on site.
Western fence lizard	<i>Sceloporus occidentalis</i>	“
Granite spiny lizard	<i>Sceloporus orcuttii</i>	May occur on-site.
Gopher snake	<i>Pituophis melanoleucus</i>	“
Common garter snake	<i>Thamnophis sirtalis</i>	“
Western toad	<i>Bufo boreas</i>	“

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