

**RE: MONSERATE HILL TENTATIVE MAP; TM 5489; LOG 06-02-010:  
ADDENDUM TO THE BIOLOGICAL RESOURCES SURVEY REPORT FOR  
THE MONSERATE HILL TENTATIVE MAP**

The attached report titled "Summary Biology Report" prepared by Vincent N. Scheidt dated April 2008, analyzes the impacts of implementation of a seven lot residential subdivision in accordance with the California Environmental Quality Act (CEQA). The project, TM 5489, has been redesigned to five residential lots, since completion of the report. The surveys and analysis of the property assumed the same limits of site disturbance, as that required by the five-lot Tentative Map. Therefore, the reduction of two lots does not affect the findings, conclusions, or recommended mitigation measures contained in the report. Accordingly, the report provides an adequate analysis pursuant to CEQA and the County of San Diego Guidelines for Determining Significance.

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## **SUMMARY BIOLOGY REPORT**

### **Biological Resources, Project Impacts, and Mitigation: TM 5489RPL1, ER 06-02-010, Bonsall**

April 2008

#### **Summary**

TM 5489RPL1 consists of the subdivision of the 24.16-acre APN 124-351-26 property into seven legal residential lots, each to be developed with single-family homes. Lots will vary in size, ranging between 2.0 and 6.1 gross acres each. The project site is basically an avocado orchard, with grove trees covering most of the site. The property is surrounded by other groves and light development in the form of roads and single-family homes. An existing single family home, to remain, is located on proposed lot 1. Offsite roads are adequate and do not require improvement as part of this project.

Implementation of TM 5489RPL1 could result in the entire site being impacted, due to grading for pad construction, fire clearing, landscaping, etc. No mitigation for impacts to most of the onsite vegetation (groves) will be necessary. However, avoidance of a riparian area and an avian nesting survey (or seasonal restrictions on site development) are recommended to ensure project consistency with CEQA, the County's Resource Protection Ordinance, the Migratory Bird Treaty Act, and the California Fish and Game Code.

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#### **Introduction, Project Description, Location, and Setting**

Tentative Map (TM) 5489RPL1 proposes the subdivision of approximately 24.16 acres of active agricultural land (APN 124-351-26) into seven new legal lots to be developed with single-family homes, one of which (proposed lot 1) supports a single-family home, which will remain after site subdivision. The project does not propose any offsite improvements.

The TM 5489RPL1 project site is located on a slope between segments of Monserate Hill Road in the Bonsall Community Planning Area of unincorporated San Diego County (Figure 1). The project site is surrounded by agriculture or urban/development (in the form of single-family homes) (Figure 2). The site itself supports nearly 100% non-native vegetation (groves) and disturbed or developed habitat (Figure 3).

Shannon Allen, Associate Biologist, and I conducted a field survey of the TM 5489RPL1 site on 13 January 2005 between the hours of approximately 13:30 and 15:30. Weather conditions were conducive to site surveying, with overcast skies, temperatures in the low 60's, and no wind. A follow-up field survey to perform a wetland delineation was completed on 2 March 2005 between the hours of approximately 09:30 and 15:30. Skies were clear during this second survey, with temperatures in the mid to upper 60's. The purpose of this fieldwork was to identify the site's flora and fauna (Table 1), the onsite habitat-types, and

potential project impacts and mitigation (Table 2), if required. Although no offsite road improvements are anticipated, potential offsite fire clearing impacts were assessed.

## Habitats/Vegetation Communities

The following habitat-types/plant communities are found on the TM 5489RPL1 project site:

### Orchards and Vineyards (Holland Code 18100) - 22.36 acres

Fruit orchards cover the majority of the site. This habitat is indicated by Avocado (*Persea* sp.), various citrus (*Citrus* sp.), and other fruit trees. The understory of this habitat consists of occasional orchard weeds and grasses, although most areas are largely weed-free. Commonly observed weeds include Ripgut Brome (*Bromus diandrus*), Stork's-bill (*Erodium botrys*), Common Catchfly (*Silene gallica*), and many others. The biological resource value of this habitat is low.

### Urban/Developed (Holland Code 12000) - 1.45 acres

As previously mentioned, a single family residence occurs in the northwestern portion of APN 124-351-26. Several buildings are associated with this residence, including a shed, a detached car-port, swimming pool, etc. Ornamental landscape plantings surround these structures. The central portion of the site also supports a small, plastic-lined agricultural pond that is used for grove watering and as an ornamental feature. The pond was completely dominated by Water Hyacinth (*Eichhornia crassipes*), a weedy and invasive open water species. Several large Bullfrog (*Rana catesbeiana*) tadpoles were observed swimming in the pond. These predatory anurans would likely preclude any native amphibians from using the pond. The biological resource value of this habitat is low.

### Southern Willow Scrub (Holland Code 63320) - 0.35 acres

Portions of the two drainages associated with APN 124-351-26 qualify as supporting Southern Willow Scrub habitat, with indicators including Arroyo Willow (*Salix lasiolepis*), Mexican Elderberry (*Sambucus mexicanus*), and others. At the time of the survey, the areas surrounding the drainages were saturated and flowing water was evident in the more western drainage. The drainages vary in habitat quality from moderate to low. The edges of the drainages have been historically impacted by grove activities. The more western drainage also has several check dams that have been constructed across the drainage over the years. The biological resource value of this habitat is moderate to high.

### Coastal Scrub (Holland Code 32000) - trace, offsite

A narrow strip of successional coastal scrub vegetation is present just offsite on the near vertical road cut that was created when Monserate Hill Road was built. This small slope supports bare rock along with occasional specimens of California Sagebrush (*Artemisia californica*), Deerweed (*Lotus scoparius*), and others in low numbers. The biological resource value of this successional habitat is low.

## Special Status Species

Red-shouldered Hawk was the only sensitive animal species detected onsite during the surveys, and no sensitive plant species were found on or adjoining the property.

**Red-shouldered Hawk**

*Buteo lineatus*

**Listing:** "Blue List" (Tate, 1986)

County status: San Diego County "Sensitive Bird" List (DPLU, 1995)

State status: California "Fully Protected" Species (CDFG Code Sections 3511, 4700, 5050 & 5515)

Federal status: Protected Raptor (16 U.S.C. 668-668d, 54 Stat. 250), as amended

**Distribution:** Central and southern California west of the Sierras. Also Mexico, southeastern Canada, and the eastern United States.

**Habitat(s):** Roost and nest in a variety of woodland habitats: eucalyptus woodlands, oak groves, open riparian forests, and related broken wooded areas.

**Status on Site:** Two specimens were seen soaring over the site and adjoining lands during the field survey.

**Comments:** Population numbers of this species in Southern California seem to have changed little over the last century, although other areas within the species' range have experienced significant population declines.

No other sensitive animals were detected during the survey. Various wide-ranging sensitive species, such as Turkey Vulture (*Cathartes aura*), Cooper's Hawk (*Accipiter cooperi*), several species of bats, etc. might be expected onsite, although surrounding land-uses would preclude the occurrence of any highly sensitive species, such as Golden Eagle or Prairie Falcon. Also, the San Luis Rey River, which is located across Pala Road (SR 76) to the south, is known to support certain sensitive species, such as Arroyo Toad (*Bufo californicus*), Least Bell's Vireo (*Vireo bellii pusillus*), Southwestern Willow Flycatcher (*Empidonax trailii extimus*), and others. Significant grade separation between the river and the TM 5489RPL1 site exists, however, effectively precluding these very rare species from occurring onsite, and insufficient habitat exists in conjunction with the drainage or the grove to support these taxa (Figure 4). No state or federally listed Rare, Threatened or Endangered Species are anticipated, nor would any critical or highly sensitive populations of any species reside onsite. Sensitive species known from the vicinity, along with an assessment of the probability of occurrence onsite and factual basis for that determination, are presented in Table 3.

Arroyo Toad Habitat Evaluation

Arroyo Toad, a federally-listed Endangered amphibian, occurs in open, exposed riparian habitats with sand and gravel banks, interspersed with shallow, slow-moving water. The riparian habitat on the subject property consists of a closed canopy over a willow thicket which runs down a steep slope. Thus, the probability for Arroyo Toad to occur on this property as a breeding species is considered very low. The nearest known breeding area for this rare species is in the San Luis Rey River, which is approximately ¼ mile from the project site to the south. Land uses on and surrounding the property include groves, roads and residential development, all of which would preclude this species from occurring onsite.

Least Bell's Vireo Habitat Evaluation

Least Bell's Vireo (*Vireo bellii pusillus*), a state-listed and federally-listed Endangered migratory songbird, occurs in dense willow-dominated riparian habitats. The nearest known populations of this very rare species are in the San Luis Rey River, which is approximately ¼ mile from the project site to the south. As discussed above, the topographical separation between the property and the San Luis Rey River, in addition to the spotty nature of the onsite willow habitat (moderate to low biological resource value), likely precludes the occurrence this species onsite. In addition, land uses on and surrounding the property include groves, roads and residential development, all of which would preclude this species from occurring onsite.

### Southwestern Willow Flycatcher Habitat Evaluation

Southwestern Willow Flycatcher is a federally-listed Endangered migratory songbird that nests in mature riparian vegetation, most typically over running or standing water, with a specific understory structure. The riparian habitat onsite lacks the vegetative structure necessary for Southwestern Willow Flycatcher to occur. The nearest populations of this species are in the San Luis Rey River, which is approximately ¼ mile from the project site to the south. As discussed above, the topographical separation between the property and the San Luis Rey River, in addition to the spotty nature of the onsite willow habitat (moderate to low biological resource value), precludes the occurrence this species onsite. In addition, land uses on and surrounding the property include groves, roads and residential development, all of which would preclude this species from occurring onsite.

### **Jurisdictional Wetlands and Waterways**

Wetlands and jurisdictional “waters” are present along the central drainage portion of the site. This area supports hydrophytic vegetation, areas of hydric soils, and/or clear wetlands hydrology. A formal Jurisdictional Wetland Delineation was completed in March of 2005 for TM 5489RPL1. This delineation identified state and federal wetlands and non-wetland “waters” in various areas of the site. That portion of the drainage mapped as supporting Southern Willow Scrub vegetation also qualifies as supporting County (Resource Protection Ordinance) wetlands. An additional area of Resource Protection Ordinance (RPO) wetlands is present approximately 40 feet offsite to the east of the eastern property corner. Figure 3 illustrates the onsite wetlands and RPO wetlands within 100 feet of the site.

### **Other Unique Features/Resources**

Because of the TM 5489RPL1 project site’s location in the midst of active agriculture and almost entirely disturbed nature, it lacks unique features or resources that would enhance its biological significance. At the most, the grove trees onsite might be expected to provide raptor roosting and/or nesting habitat for local species that are tolerant of long-standing agricultural conversion.

### **Wildlife Corridors**

The habitats associated with the TM 5489RPL1 project site do not provide any functional wildlife corridors, although some species of avifauna might move up and down along the riparian area on occasion. Connectivity to offsite natural areas is not present and no resources exist onsite that would attract wildlife to this area.

### **Significance of Project Impacts**

The subdivision and subsequent development of the TM 5489RPL1 project site is subject to review under the California Environmental Quality Act (CEQA) and the County’s Resource Protection Ordinance (RPO). This means that the County requires that all project-related impacts to the site’s flora, fauna, and habitats be assessed, and that mitigation be provided in the instance that impacts are considered “significant” as

defined by CEQA. Mitigation is designed to reduce the effects of development, keeping all impacts at a level that is “less than significant”.

Future development of the subject site could result in the following direct and indirect impacts:

- A loss of 22.36 acres of Orchards and Vineyards habitat. Impacts to Orchards and Vineyards habitat are considered “less than significant” and do not require mitigation.
- A loss of 1.45 acres of Urban/Developed habitat. Impacts to Urban/Developed habitat are considered “less than significant” and do not require mitigation.
- A loss of 0.35 acres of Southern Willow Scrub vegetation. Any impacts to Southern Willow Scrub are considered “significant” and require mitigation.
- Impacts to a trace amount of successional Coastal Scrub vegetation are not anticipated. All of this vegetation is located offsite on a steep road cut between Monserate Hill Road and the existing home on proposed parcel 1. No improvements in this area are anticipated.
- Potential displacement impacts to nesting raptors or migratory songbirds are considered “significant”, as defined by CEQA. The federal Migratory Bird Treaty Act (MBTA) and Sections 3503, 3503.5 and 3513 of the California Fish and Game Code protect the nests of essentially all native birds. Although no active bird nests or nesting behaviors were detected during the site survey, nesting in some of the trees or larger shrubs adjacent to the site is possible. Any disturbance, either direct or indirect, that would cause abandonment of active nests containing eggs or young would be a violation of the MBTA and/or the California Fish and Game Code.

Project-related impacts to habitats, as we have identified them, are summarized in Table 2.

## Cumulative Impacts

Due to the almost entirely disturbed nature of the project site, its active agricultural use, and its long history of disturbance, the TM 5489RPL1 project will not have cumulatively considerable impacts when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects affecting the same resource.

## Proposed Mitigation

In order to reduce all project impacts to “less than significant”, the dedication of a **Biological Open Space Easement** is recommended. This is required pursuant to the RPO, which does not permit wetland impacts, and to provide compliance with other state and federal statutes regarding the conservation of wetlands. The biological open space easement includes a wetland buffer that extends at least 50 feet from the limits of the RPO wetland, which corresponds to the edge of canopy of the Southern Willow Scrub vegetation. The wetland buffer extends at least 25 feet from the limits of the state (California Department of Fish and Game) and federal (U.S. Army Corps of Engineers) wetlands onsite. This width is justified based on the moderate to low biological resource value of the willow scrub, and the lack of riparian vegetation in portions of the CDFG wetlands. A **Limited Building Zone Easement** shall extend 100 feet

from the outer limits of the biological open space easement. This easement shall preclude the construction of any structure that would require fire clearing into the biological open space easement area, including the wetland buffer or wetlands themselves. No fuel modification shall be allowed in the RPO wetlands or wetland buffer. Figure 3 illustrates the recommended easements.

## Bibliography/References

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## Preparer and Persons/Organizations Contacted



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## Attachments

- Table 1. Flora and Fauna Detected - TM 5489RPL1
- Table 2. Impact/Mitigation Analysis - TM 5489RPL1
- Table 3. Sensitive Species Known from the Vicinity - TM 5489RPL1
- Figure 1. Regional Location - TM 5489RPL1
- Figure 2. Aerial Photo - TM 5489RPL1
- Figure 3. Biological Resources, Wetlands, and Open Space Exhibit - TM 5489RPL1
- Figure 4. Nearest populations of Arroyo Toad, Least Bell's Vireo and Southwestern Willow Flycatcher

**Table 1. Flora and Fauna Detected - TM 5489RPL1**

<u>Scientific Name</u>	<u>Common Name</u>
<u>Plants</u>	
<i>Amaranthus albus</i> *	White Tumbleweed
<i>Anagallis arvensis</i> *	Scarlet Pimpernel
<i>Apium graveolens</i> *	Common Celery
<i>Baccharis glutinosa</i>	Mule Fat
<i>Brassica geniculata</i> *	Perennial Mustard
<i>Bromus unioloides</i> *	Rescue Brome
<i>Bromus diandrus</i> *	Ripgut Brome
<i>Centaurea melitensis</i> *	Tocalote
<i>Chamaesyce maculate</i> *	Spotted Spurge
<i>Chenopodium sp.</i> *	Goosefoot
<i>Citrus sp.</i> *	Citrus
<i>Conyza canadensis</i> *	Common Horseweed
<i>Cyperus sp.</i> *	Sedge
<i>Eichhornia crassipes</i> *	Water Hyacinth
<i>Epilobium sp.</i>	Fireweed
<i>Erodium botrys</i> *	Stork's-bill
<i>Festuca megalura</i> *	Foxtail Fescue
<i>Foeniculum vulgare</i> *	Wild Anise
<i>Gnaphalium californicum</i>	California Cudweed
<i>Hedypnois cretica</i> *	Hedypnois
<i>Lactuca serriola</i> *	Wild Lettuce
<i>Lotus scoparius</i>	Deerweed
<i>Marah macrocarpus</i>	Man Root
<i>Malva parviflora</i> *	Cheeseweed
<i>Melilotus sp.</i> *	Sweet Clover
<i>Nicotiana glauca</i> *	Tree Tobacco
<i>Paspalum dilatatum</i>	Orchard Grass
<i>Persea americana</i> *	Avocado
<i>Plantago major</i>	English Plantain
<i>Picris echioides</i> *	Bristly Ox-tongue
<i>Raphanus sativus</i> *	Wild Radish
<i>Ricinus communis</i> *	Castor Bean
<i>Rumex crispus</i> *	Curly Dock
<i>Salix lasiolepis</i>	Arroyo Willow
<i>Salix sp.</i>	Willow
<i>Sambucus mexicanus</i>	Elderberry
<i>Silene gallica</i> *	Common Catchfly
<i>Sonchus aspera</i> *	Prickly Sow Thistle
<i>Sonchus oleraceus</i> *	Sow Thistle
<i>Tamarix sp.</i> *	Salt Cedar
<i>Typha latifolia</i>	Cattails
<i>Urtica dioica</i> *	Stinging Nettle
<i>Washingtonia robusta</i> *	Mexican Fan Palm
<i>Zantedeschia aethiopica</i> *	Lily of the Nile
<u>Birds</u>	
<i>Archilochus anna</i>	Anna's Hummingbird
<b><i>Buteo lineatus</i></b>	<b>Red-shouldered Hawk</b>
<i>Pipilo crissalis</i>	California Towhee
<i>Sayornis nigricans</i>	Black Phoebe
<i>Zenaida macroura</i>	Mourning Dove
<i>Zonotrichia leucophrys</i>	White-crowned Sparrow

**Table 1. Flora and Fauna Detected - TM 5489RPL1**

<u>Scientific Name</u>	<u>Common Name</u>
<u>Mammals</u>	
<i>Canis latrans</i>	Coyote
<i>Spermophilus beecheyi</i>	California Ground Squirrel
<i>Sylvilagus audubonii</i>	Desert Cottontail Rabbit
<i>Thomomys bottae</i>	Valley Pocket Gopher
<u>Reptiles</u>	
<i>Sceloporus occidentalis</i>	Western Fence Lizard
<u>Amphibians</u>	
<i>Hyla regilla</i>	Pacific Treefrog
<i>Rana catesbeiana</i> *	Bullfrog
<hr/>	
Total - 57 species	* - non-native taxon <b>BOLD</b> - sensitive species

**Table 2. Habitat Impacts/Mitigation Analysis - TM 5489RPL1**

<b>Biological Resource</b>	<b>Acres Impacted Onsite (post-development)</b>	<b>Acres Preserved (post-development)</b>	<b>Mitigation Required</b>
Orchards and Vineyards	22.36 ac	1 <sup>1</sup>	none
Urban/Developed	1.45 ac	none	none
Southern Willow Scrub	0.35 ac	0.35 ac	avoidance, open space
Coastal Scrub	none <sup>2</sup>	n/a	offsite

<sup>1</sup> - Approximately 1.532.46 acres of this habitat will be incorporated into biological opens space as it forms a part of the wetland buffer for TM 5489RPL1.

<sup>2</sup> Because the existing home on proposed Parcel 1 is fully developed, no impacts to this small area of scrub habitat are anticipated as a result of approval of TM 5489RPL1.

Table 3. Sensitive Species Known from the Vicinity - TM 5489RPL1

Scientific Name	Common Name	Federally Endangered	Federally Threatened	State Endangered	Coastal Sage Scrub	Mixed Chaparral	Grassland	Riparian	Oak Woodland	Chamise Chaparral	Mixed Conifer	Closed Cone Forest	Piñon-Juniper	Freshwater Marsh	Desert Scrub	Desert Wash	Salt or Alkali Marsh	Vernal Pools	Montane Meadow	Coastal or Desert Dune	Lakes and Bays	Probability of Occurrence		Factual Basis for Determination	
<i>Acanthomintha ilicifolia</i>	San Diego Thornmint		✓	✓	✓					✓												L	1a		
<i>Accipiter cooperii</i>	Cooper's hawk							✓	✓	✓												M	2a		
<i>Anmodramus savannarum</i>	Grasshopper sparrow						✓															L	1a		
<i>Anniella pulchra pulchra</i>	Silvery legless lizard				✓		✓	✓													✓	L	1a		
<i>Antrozous pallidus</i>	Pallid bat				✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓						M	2a		
<i>Aquila chrysaetos</i>	Golden eagle				✓	✓	✓		✓	✓	✓	✓	✓									L	1a		
<i>Ardea herodias</i>	Great blue heron						✓							✓								L	1a		
<i>Athene cunicularia hypugea</i>	Burrowing owl				✓		✓									✓						L	1a		
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea						✓	✓	✓	✓											✓	L	1a		
<i>Buteo lineatus</i>	Red-shouldered hawk						✓								✓							O	-		
<i>Cathartes aura</i>	Turkey vulture				✓	✓	✓	✓	✓	✓	✓	✓										M	2a		
<i>Chaetodipus californicus femoralis</i>	Dulzura California pocket mouse				✓	✓	✓		✓	✓	✓											L	1a		
<i>Circus cyaneus hudsonius</i>	Northern harrier						✓															L	1a		
<i>Cnemidophorus hyperythrus</i>	Orange-throated whiptail				✓	✓	✓	✓		✓												M	2a		
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						✓	M	2a		
<i>Danaus plexippus</i>	Monarch butterfly						✓		✓													M	2a		
<i>Elanus caeruleus</i>	Black-shouldered kite						✓	✓														M	1a		
<i>Eremophila alpestris actis</i>	Horned lark						✓															M	2a		
<i>Eumops perotis californicus</i>	Greater western mastiff bat				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	M	2a	
<i>Euphydryas editha quino</i>	Quino checkerspot butterfly	✓			✓	✓			✓						✓							L	1a		
<i>Holocarpa virgata elongata</i>	Graceful tarplant						✓															L	1a		
<i>Lanius ludovicianus</i>	Loggerhead shrike				✓	✓	✓	✓							✓	✓						M	2a		
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit				✓	✓	✓		✓	✓	✓	✓										L	1a		
<i>Muilla clevelandii</i>	San Diego goldenstar				✓		✓		✓													L	1a		
<i>Myotis yumanensis</i>	Yuma myotis				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓		✓	M	2a		
<i>Nyctinomops macrotis</i>	Big free-tailed bat				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	M	2a	
<i>Nyctinomops femorosaccus</i>	Pocketed free-tailed bat				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	M	2a	
<i>Odocoileus hemionus</i>	Southern mule deer				✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓					✓	L	1a		
<i>Onychomys torridus ramona</i>	Southern grasshopper mouse				✓	✓	✓		✓													L	1a		
<i>Phrynosoma coronatum blainvillei</i>	San Diego horned lizard				✓	✓	✓	✓		✓	✓											L	1a		
<i>Scaphiopus hammondii</i>	Western spadefoot toad				✓	✓	✓	✓	✓					✓							✓	L	1a		
<i>Taxidea taxus</i>	American badger				✓	✓	✓		✓	✓			✓		✓						✓	L	1a		

**Probability of Occurrence Codes:**

L - Low Probability; rare species in area; M - Moderate Probability; H - High Probability; O - Observed; see text for detailed discussion.

**Factual Basis for Determination:**

1a - no significant habitat (animal or plant); 1b - distinctive perennial that would not have been missed if present onsite (plant)

2a - could be expected to occur onsite on at least an occasional basis, based on habitat quality (animal); 2b - could occur onsite, but very rare, and/or poorly known (plant)

3a - nearly certain to occur onsite on a regular basis (animals), but cryptic; 3b - ephemeral species known from the immediate vicinity, but seasonal in occurrence (plant)

Figure 1. Regional Location - TM 5489RPL1  
Portion of U.S.G.S. "Bonsall, California" 7.5' Quadrangle

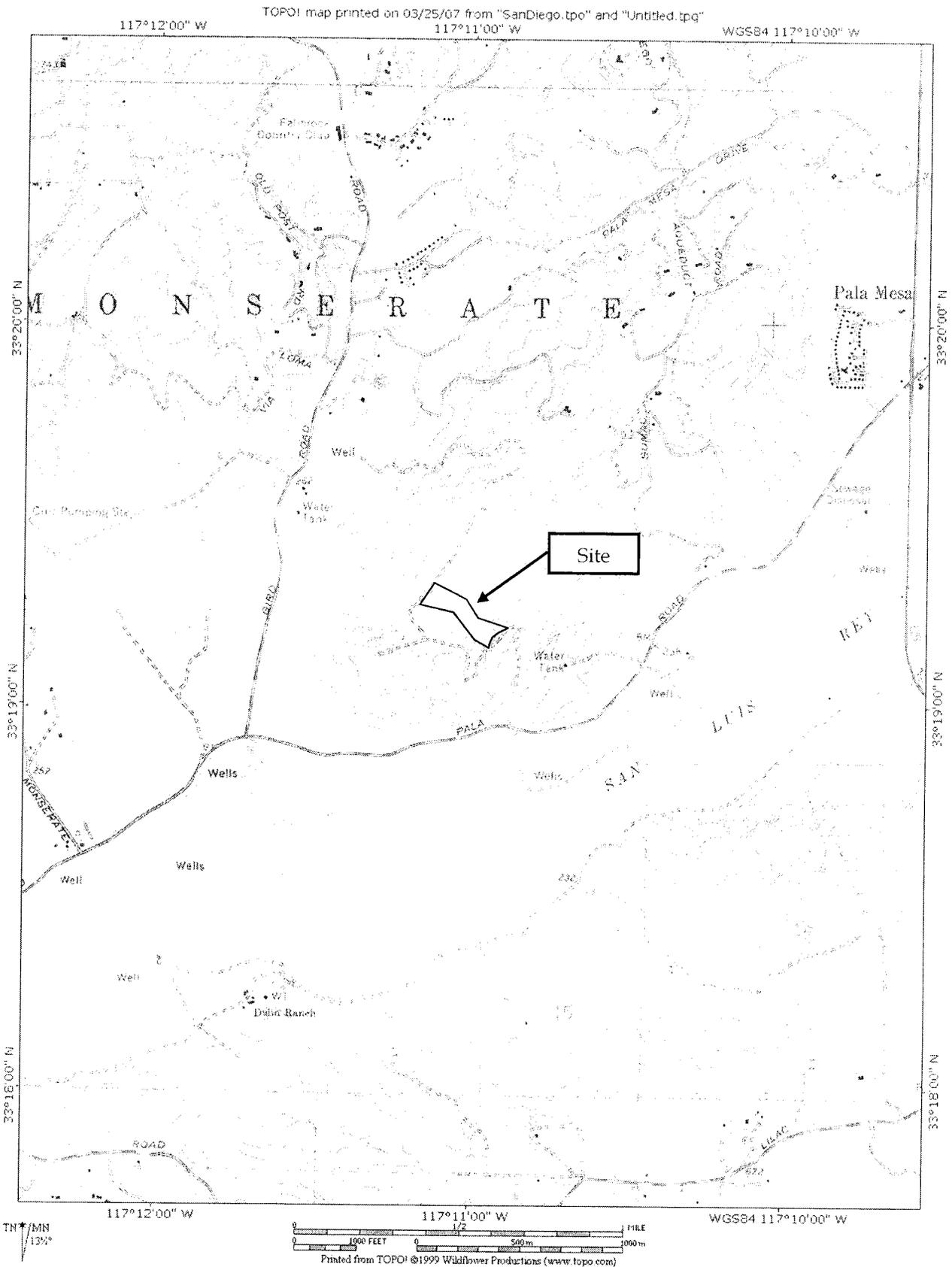
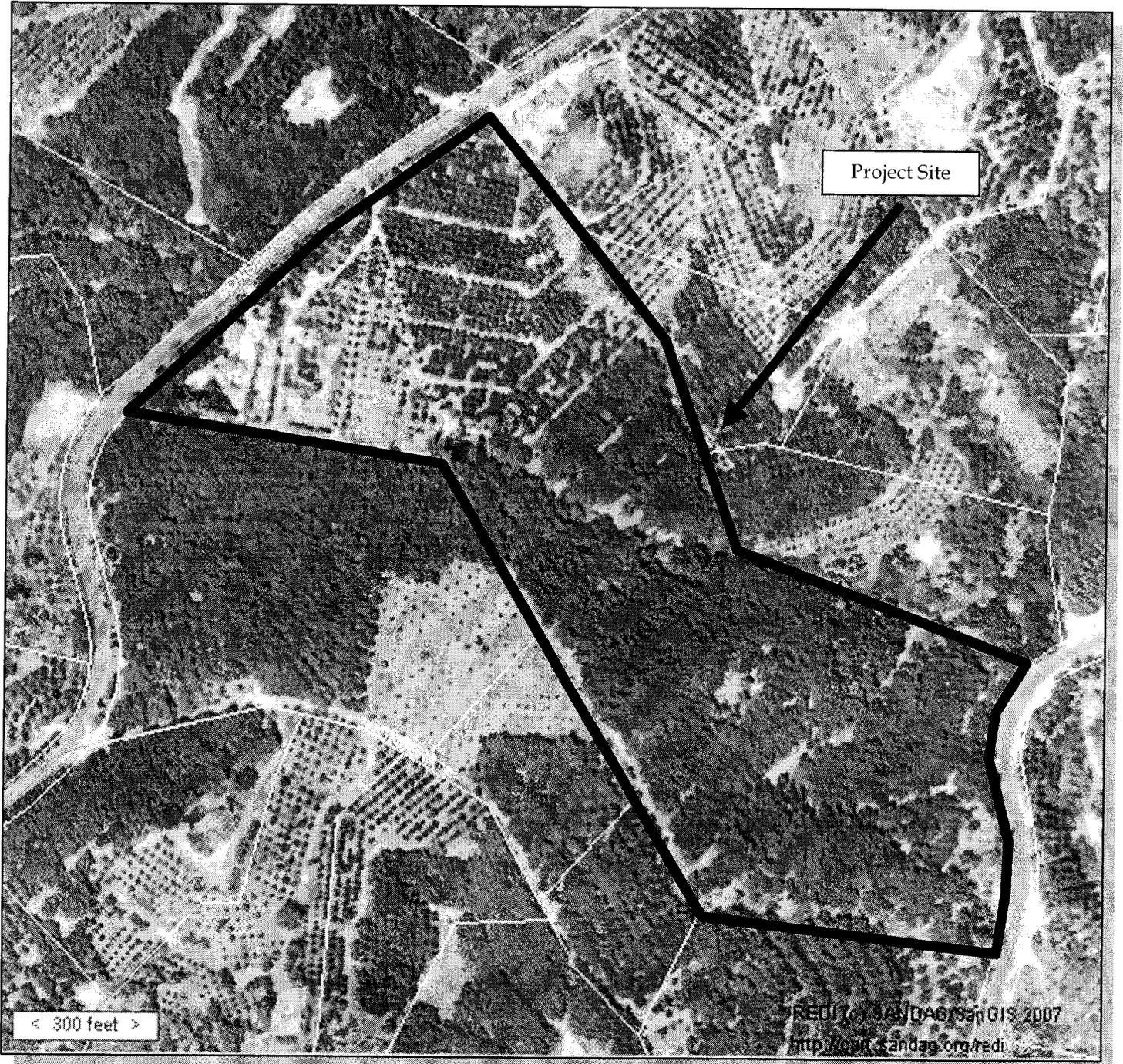


Figure 2. Aerial Photo - TM 5489RPL1



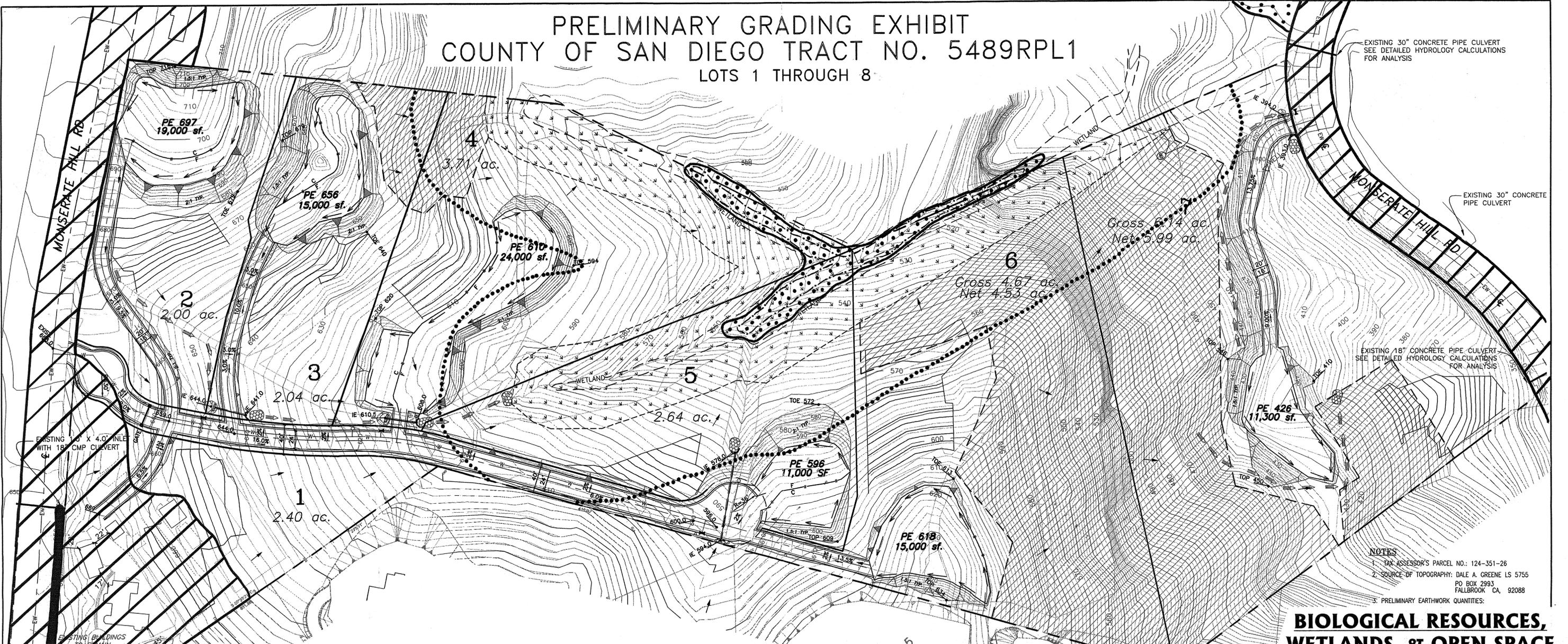
**Figure 3. Biological Resources, Wetlands, and Open Space – TM 5489RPL1**

*(see 60'-scale exhibit, attached)*

—————▶ reduced copy here for Final Iteration ◀—————



# PRELIMINARY GRADING EXHIBIT COUNTY OF SAN DIEGO TRACT NO. 5489RPL1 LOTS 1 THROUGH 8



EXISTING 30" CONCRETE PIPE CULVERT  
SEE DETAILED HYDROLOGY CALCULATIONS  
FOR ANALYSIS

EXISTING 30" CONCRETE  
PIPE CULVERT

EXISTING 18" CONCRETE PIPE CULVERT  
SEE DETAILED HYDROLOGY CALCULATIONS  
FOR ANALYSIS

- NOTES**
- TAX ASSESSOR'S PARCEL NO.: 124-351-26
  - SOURCE OF TOPOGRAPHY: DALE A. GREENE LS 5755  
PO BOX 2993  
FALLBROOK CA, 92088
  - PRELIMINARY EARTHWORK QUANTITIES:

## BIOLOGICAL RESOURCES, WETLANDS, & OPEN SPACE

**Monserate Hill Road Project  
TM 5489RPL1, ER 06-02-010  
APN 124-351-26 & -51**

- LEGEND**
- SUBDIVISION BOUNDARY
  - PROPOSED LOT LINE
  - MONSERATE HILL RD. RIGHT OF WAY
  - ROAD AND GROVE MAINT. EASEMENT
  - PROPOSED WATER LINE & METER
  - EXISTING WATER LINE PER TM 2726-1
  - PROPOSED FIRE HYDRANT
  - CUT SLOPE - 1.5 : 1 MAX
  - FILL SLOPE - 2 : 1 MAX
  - PAD ELEVATION PE 618

- NATURAL DRAINAGE DIRECTION
- RIP-RAP LINED CHANNEL
- EARTHEN DRAINAGE SWALE
- 18" CMP
- RIP RAP REGIONAL STANDARD D-40
- STRAIGHT HEADWALL REGIONAL STANDARD D-32
- HEADWALL W/ WING WALLS REGIONAL STANDARD D-35B
- CUT/FILL
- LEACH FIELDS

**GENERAL PLAN  
AVERAGE SLOPE ANALYSIS**

LOT #	AVERAGE SLOPE	NET AC.
1	15	2.40
2	20	2.00
3	24	2.04
4	20	3.71
5	23	2.64
6	43	4.53
7	37	5.99
8	-	1.00

- OPEN SPACE EASEMENTS**
- PROPOSED STEEP SLOPE OPEN SPACE EASEMENT 6.16 AC.
  - PROPOSED BIOLOGICAL OPEN SPACE EASEMENT 2.81 AC.

Land Preserved According to Vegetation Type

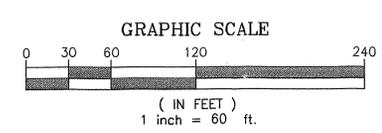
Biological Resource	Acres Preserved (post-development)
Orchards and Vineyards	22.36
Urban/Developed	none
Southern Willow Scrub	0.35 ac
Coastal Scrub	n/a

- LEGEND**
- = Orchards and Vineyards (Holland Code 18100) - 22.36 acres
  - = Urban/Developed (Holland Code 12000) - 1.45 acres
  - = Southern Willow Scrub (Holland Code 63320) - 0.35 acre
  - = Coastal Scrub (Holland Code 32000) - offsite
  - = State - California Department of Fish and Game (CDFG) - Wetland limits
  - = Federal - U.S. Army Corps of Engineers (ACoE) - Wetland limits
  - = County - Resource Protection Ordinance (RPO) - Wetland limits
  - = Proposed Limited Building Zone (LBZ) Easement

Not shown: Red-shouldered Hawk (soaring over site)

Prepared by:

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CERTIFIED BIOLOGICAL CONSULTANT



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CIVIL ENGINEERING • PLANNING LAND SURVEYING					
REV.	DATE	DESCRIPTION	DATE	APPROVAL	
3	8/30/07	CHANGES PER COUNTY COMMENTS			
2	4/11/07	CHANGES PER COUNTY COMMENTS			
1	2/14/06				