

**2007**  
**Focused California Gnatcatcher (*Polioptila californica*) Survey**  
**for the Proposed University Hills Development in San Bernardino,**  
**San Bernardino County, California**

**Prepared for:**

Inland Communities Corporation  
1801 Avenue of the Stars, Suite 1205  
Los Angeles, CA 90067  
(310) 277-7551

**Prepared by:**

Thomas Olsen Associates, Inc.  
2829 S. State Street  
Hemet, California 92543

August 16, 2007

## **TABLE OF CONTENTS**

INFORMATION SUMMARY.....	1
INTRODUCTION.....	2
METHODS.....	3
Table 1. Summary of Visit Conditions.....	4
SITE DESCRIPTION AND VEGETATION.....	5
RESULTS.....	6
CONCLUSION.....	6
Table 2. Species Identified in Survey Area.....	8
Figure 1. Site Location.....	14
Figure 2. Site Vicinity.....	15
Figure 3. Habitat Map.....	16
Figure 4. Survey Area A.....	17
Figure 5. Survey Area B.....	18
REFERENCES.....	19
APPENDIX: SITE PHOTOS.....	20

## INFORMATION SUMMARY

Report Date: August 16, 2007

Owner/Applicant: Inland Communities Corporation  
1801 Avenue of the Stars, Suite 1205  
Los Angeles, CA 90067

Principle Investigators: Thomas Olsen Associates, Inc.  
2829 South State Street  
Hemet, California 92543  
(951) 766-4655

Principle Author: Michael Misenhelter  
Staff Biologist, Thomas Olsen Associates, Inc.

Thomas Olsen Associates, Inc. conducted a US Fish and Wildlife Service (Service) protocol focused survey for the coastal California gnatcatcher (*Polioptila californica californica*) (gnatcatcher) at the site of the approximately 185 acre proposed University Hills residential project on Badger Canyon Road northeast of the San Bernardino campus of Cal State California in the City of San Bernardino, San Bernardino County, California (Figure 1 and Figure 2). The area of concern includes the proposed project area and two proposed road corridors connecting the proposed project to nearby streets. The project area is a portion of a larger property that includes approximately 257 acres of the adjacent hills to the north. The survey area was confined to the proposed project area.

The coastal California gnatcatcher only occurs within coastal Southern California in the United States and was listed as threatened by the U.S. Fish and Wildlife Service in March 1993 due to a significant decrease in its population size associated with the loss of large patches of habitat within its distribution range in the state. Surveys to determine presence/absence of the California gnatcatcher are required when gnatcatcher habitat is located within the boundaries of a proposed project located within its historic range.

Coastal California gnatcatcher habitat consists of shrub species associated with what is known as the coastal sage scrub plant community. Approximately 58 acres of California gnatcatcher habitat was identified within the proposed project area. Twelve survey visits were conducted between the dates of May 23 and June 28, 2007. No California gnatcatchers were detected.

## INTRODUCTION

Thomas Olsen Associates, Inc. was retained by Karen Kirtland of Natural Resources Assessment, Inc. representing Inland Communities Corporation to perform a focused survey for the coastal California gnatcatcher (*Polioptila californica californica*) (gnatcatcher) in suitable habitat within the proposed University Hills project. The proposed project is the construction of a residential development on approximately 185 acres at the base of the San Bernardino Mountains in the City of San Bernardino. The site is located on Badger Canyon Road, northeast of the campus of California State University San Bernardino (Figures 1 & 2). The surveyed area is located mostly within the northeastern quarter of Section 8 and the northwestern quarter of Section 9 of T1N, R4W, San Bernardino Base and Meridian.

### Background

The California gnatcatcher, a small songbird, is an obligate year-round resident of sage scrub communities from Ventura County south along the coast to the United States/Mexico border and inland along the lower coastal slopes of the San Gabriel, San Bernardino, San Jacinto, Volcan, Cuyamaca, and Laguna Mountains. Sage scrub vegetation was once wide spread throughout coastal southern California but has been fragmented and eliminated by agricultural and urban development over most of its range during the last sixty years or so. Sage scrub communities are typically dominated by relatively low-growing, drought deciduous or succulent shrub or sub-shrub species including California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), brittlebush (*Encelia farinosa*), sage species (*Salvia* spp.), and cacti (*Opuntia* spp.). It is not typically found in chaparral communities which, while superficially similar to sage scrub, are taller and more dense than sage scrub communities. California gnatcatchers are occasionally found in other vegetative communities (including chaparral) when those communities occur adjacent to sage scrub vegetation.

California gnatcatchers begin nesting in mid to late February. Re-nesting attempts may be made into August. Territory size ranges from 2 to 30 acres with size typically increasing with distance from the coast. They have a repetitive, kitten-like mewing call and appear to be most vocal in the early morning and evening. Detection is difficult if the birds are not vocalizing but fairly easy otherwise. When not vocalizing, the California gnatcatcher can be confused with the similarly looking blue-gray gnatcatcher (*Polioptila caerulea*) which is common in coastal Southern California and beyond. The California gnatcatcher has a more dusky brown overall wash versus the grayer blue-gray gnatcatcher. Careful observation will detect the nearly all white outer tail feathers of the blue-gray versus the nearly all black (with a fringe of white) outer tail feathers of the California gnatcatcher. The male California gnatcatcher sports an all black cap during the nesting season while the blue-gray does not.

On March 25, 1993, the California gnatcatcher was listed by the United States Fish and Wildlife Service (Service) as a threatened species pursuant to the Federal Endangered Species Act (ESA) (58 FR 16742-16757). The ESA prohibits anyone from "taking" a listed species. Take includes, but is not limited to, harming, harassing or killing of individuals as well as destruction of occupied habitat. An Endangered Species Act Section 7 or Section 10 permit is required to "take" this species.

The final determination of critical habitat for the gnatcatcher was published on October 24, 2000 (65 FR 63679-63743). Approximately 513,650 acres in Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties was listed as critical habitat. Critical habitat is defined as areas that are essential to the conservation of the species. Designated critical habitat includes land encompassing essential core populations of gnatcatchers and linkage areas that may require special management considerations. The ESA prohibits the destruction or adverse modification of designated critical habitat by any project with a federal nexus. On April 24, 2003, the Service re-proposed critical habitat for the gnatcatcher in response to legal challenges brought against the October 2000 final designation. Under the new plan, 495,795 acres of land would be designated critical habitat. The most recent public comment period on the new Critical Habitat plan expired in May 2007 and a final decision on it is expected by November 2, 2007.

## **METHODS**

This survey was conducted in compliance with US Fish and Wildlife Service protocol (USFWS 1997). Surveys of the project area were conducted by slowly walking transects through and along areas of suitable habitat (Figures 3, 4, and 5). The direction each route was followed was reversed each week in order to avoid any temporal issues of always covering any particular area at the same time of the day each week. The project/survey area was divided into two sections (Figure 3). Section "a" was surveyed on Wednesdays and section "b" was surveyed on Thursdays. Area "a" included 62 acres of the project site encompassing approximately 10 acres of gnatcatcher habitat the first week. Area "b" covered approximately 123 acres of the project site with approximately 48 acres of gnatcatcher habitat the first week. However, in order to spread the work more evenly across the two days, area "a" was increased to 75 acres of the project site encompassing approximately 19 acres of gnatcatcher habitat and area "b" was reduced to approximately 110 acres covering approximately 39 acres of gnatcatcher habitat after the first week's effort. Gnatcatcher habitat within area "a" was more fragmented and widely dispersed than in area "b" and, relatively speaking, more time was spent in area "a" walking through areas of non-habitat than in area "b." Non-habitat scrubby areas (very poor habitat dominated by deerweed and grasses) along the survey route in both areas were also examined for California gnatcatcher presence but not as extensively as the habitat areas. That is, taped gnatcatcher calls were not played for areas of non-habitat and less time was spent observing non-habitat areas.

The use of taped California gnatcatcher calls was judiciously used to attract birds. These techniques sometimes are useful for attracting gnatcatchers and other animals. The taped gnatcatcher call used is from the Peterson Field Guides, Western Bird Songs collection (Peterson 1992). Each playback of the tape typically consists of at least two repetitions of the call within a 45 second period using a General Electric Model 3-5301 portable cassette tape recorder/player adjusted to near maximum volume.

The survey was performed by Thomas Olsen Associates, Inc. staff biologist Mike Misenhelter under TOA permit TE-787645-9. A summary of the dates and times of each survey as well as the beginning/ending weather conditions during each visit are provided in Table 1.

Table 1. Summary of Visit Conditions						
Survey Visit (week & section)	Date	Begin-End Time (PST)	Beginning/End % Cloud Cover, Temperature, & Average Wind Speed	No. of acres surveyed	No. acres/hour	No. of taped calls played
1a	May 23, 2007	0950-1157	0%/0% cover, 74°/85°F, 1mph/1mph	9.96	4.70	10
1b	May 24, 2007	0743-1155	0%/0% cover, 69°/80°F, 1 mph/3 mph	47.84	11.39	25
2a	May 30, 2007	0801-1122	100%/0% cover, 56°/76°F, 1 mph/1 mph	18.66	5.57	14
2b	May 31, 2007	0820-1147	50%/0% cover, 57°/73°F, 1 mph/2 mph	39.14	11.34	24
3a	June 6, 2007	0754-1121	80%/90% cover, 56°/63°F, 2 mph/1 mph	18.66	5.41	19
3b	June 7, 2007	0729-1118	0%/0% cover, 55°/77°F, 1 mph/6 mph	39.14	10.26	31
4a	June 13, 2007	0653-1009	0%/0% cover, 69°/89°F, 1 mph/1 mph	18.66	5.71	20
4b	June 14, 2007	0650-1049	0%/0% cover, 74°/86°F, 0 mph/2 mph	39.14	9.83	29
5a	June 20, 2007	0556-0944	0%/0% cover, 60°/84°F, 1 mph/2 mph	18.66	4.91	20
5b	June 21, 2007	0559-1038	0%/0% cover, 63°/87°F, 1 mph/2 mph	39.14	8.42	28
6a	June 27, 2007	0607-0929	0%/0% cover, 59°/85°F, 3 mph/2 mph	18.66	5.54	20
6b	June 28, 2007	0603-1034	0%/0% cover, 64°/83°F, 1 mph/2 mph	39.14	8.66	27
<b>Area "a" average</b>				<b>17.21</b>	<b>5.31</b>	<b>17.2</b>
<b>Area "b" average</b>				<b>40.59</b>	<b>9.98</b>	<b>27.3</b>
<b>Overall Average</b>				<b>28.90</b>	<b>7.64</b>	<b>22.2</b>

Wind speed and air temperature were measured using a Kestrel 2000 Pocket Thermo Wind Meter. Wind speed shown is the average wind speed measured over at least a one minute time period at the beginning and end of each site visit rounded to the nearest whole number. Along with weather conditions during each survey visit, Table 1 shows the average rate at which each survey area was

surveyed and how many times taped calls were played during the visit. Average rates are shown only with respect to the amount of gnatcatcher habitat present and not for the size of the project area. As noted above, non-habitat areas were also examined incidental to examining habitat areas where such areas existed adjacent to habitat and where the survey route passed through them.

## SITE DESCRIPTION AND VEGETATION

The survey area is located, for the most part, on an alluvial plain at the southwestern base of the San Bernardino Mountains. A small portion of the survey area extends up onto the hills on the western side of the mouth of Badger Canyon (Figure 2). The native vegetation for the area is a mix of coastal sage scrub/alluvial fan scrub below and chaparral on the hillsides above. A fault line running along the base of the hills is accompanied by a string of California black walnut and sycamore woodlands where drainages cross the fault. In general, vegetation on site is contiguous with similar vegetation to the north, east, west, and south. A portion of the western border is shared with a small landing field for ultralights and is vegetated with turf grass. Portions of the southern border are adjacent to maintained percolation basins.

The survey area is relatively untouched by development except for disturbance associated with past construction and maintenance of a series of percolation basins along the southern edge of the survey area and a water pipeline running, along the base of the hills, from the northwest to the southeast across survey area "b." Similarly, a utility line and maintenance road runs from northwest to the southeast across survey area "a." The remains of an old house, currently used as the center of illegal paint ball activities, exists within the survey area near the mouth of Badger Canyon. In 2005, a series of trenches were dug across the fault line. These trenches were refilled but the vegetation on the fill is currently dominated by common sunflower (*Helianthus annuus*) with a sparse to non-existent understory of ground cover.

The survey area is located within the boundaries of the 2003 "Old Fire" during which much of the site was burned. A California gnatcatcher habitat assessment conducted by TOA, Inc. in October 2005 found the site and adjacent properties dominated by grassland habitat with small pockets of scrub and chaparral habitat. The site was judged to not contain enough suitable habitat to warrant focused gnatcatcher surveys at that time. A reexamination of the site in May 2007 found large contiguous patches of new scrub vegetation had replaced some of the areas that had previously been dominated by grasses.

The dominant scrub species making up most of this new shrub cover is black sage (*Salvia mellifera*). Brittlebush (*Encelia farinosa*) is the dominant species in a few of the smaller patches. Much of the shrub cover is homogeneous in composition but other scrub species were found mixed in with the black sage. Other species commonly found in the mix include California buckwheat (*Eriogonum fasciculatum*), chamise (*Adenostoma fasciculatum*), white sage (*Salvia apiana*), yerba santa (*Eriodictyon trichocalyx*), and deerweed (*Lotus scoparius*). Extreme dry conditions this year resulted in the absence of most of the annual grasses and forbs commonly found in the late spring. The dried remnants of species found included foxtail chess (*Bromus madritensis rubens*), wild oats

(*Avena spp.*), schismus (*Schismus barbatus*), filaree (*Erodium sp.*), and rancher's fire weed (*Amsinckia menziesii*).

Scrub habitat at the east end of survey area "a" was dominated by deerweed, annual grasses, young chamise, and Yerba Santa. This area was judged to be poor habitat and was not surveyed as intensively as areas with better habitat. Except for a couple of small patches dominated by black sage and an area in the northeastern corner dominated by brittlebush this area was not mapped as containing suitable habitat. Likewise a large area in the middle of survey area "b" was dominated by deerweed and annual grasses and was not included in the survey effort (except where it lies adjacent to suitable habitat). See the species list (Table 2) for a complete listing of plants and animals observed during the survey effort.

## RESULTS

No California gnatcatchers were detected on or adjacent to the proposed project site. All plant and animal species detected during the surveys were recorded and are listed in Table 2. An examination of the California Natural Diversity Database (CNDDDB) turned up several California gnatcatcher records for the region. No recent California gnatcatcher sightings are given for the immediate project vicinity. The nearest record is associated with the collection of four eggs from an active nest in 1925 and is believed to have been collected in the general vicinity (within a mile) of existing percolation basins between the site and Pine Street to the west (CNDDDB 2005). Separate 1990 and 1993 records exist for the Lytle Creek area and there is a 2000 record for the hills south of Glen Helen Regional Park.

## CONCLUSION

A focused survey for the California gnatcatcher was conducted for the proposed University Hills housing project. The project site is located on an alluvial fan at the base of the southwestern corner of the San Bernardino Mountains just north of the San Bernardino campus of the California State University. Vegetation on site is recovering from the 2003 Old Fire. Though young and relatively short in stature, the scrub habitat on site was judged to be suitable for gnatcatcher occupation. All suitable habitat (approximately 58 acres of the 185 acre project area) was surveyed over a six week period as directed by the survey protocol. No California gnatcatchers were observed or otherwise detected during the survey effort. Development of the proposed project is not expected to impact the California gnatcatcher. The results of focused surveys are typically accepted for a period of one year.

**Table 2. Species Identified in Survey Area**

<u>Scientific Name</u>	<u>Common Name</u>
<b>PLANTS</b>	
<b>Anacardiaceae</b>	
<i>Rhus ovata</i>	Sumac Family
<i>Rhus trilobata</i>	Sugar bush
<i>Toxicodendron diversilobum</i>	Skunkbush
	Western poison oak
<b>Asteraceae</b>	
<i>Acourtia microcephala</i>	Aster Family
<i>Ambrosia sp.</i>	Sacapellote
<i>Artemisia californica</i>	none
<i>Artemisia dracunculus</i>	California sagebrush
<i>Baccharis salicifolia</i>	Tarragon
<i>Centaurea melitensis*</i>	Mule fat
<i>Encelia farinosa</i>	Tocalote
<i>Gnaphalium californicum</i>	Brittlebush
<i>Hazardia squarrosa</i>	California everlasting
<i>Helianthus annuus</i>	Saw-toothed goldenbush
<i>Heterotheca grandiflora</i>	Sunflower
<i>Lepidospartum squamatum</i>	Telegraph weed
<i>Lessingia filaginifolia</i>	Scale broom
<i>Stephanomeria sp.</i>	California aster
<i>Tetradymia comosa</i>	unidentified wreath plant
<i>Xanthium strumarium</i>	Cotton-thorn
	Cocklebur
<b>Boraginaceae</b>	
<i>Amsinckia menziesii</i> (= <i>A. intermedia</i> )	Borage Family
<i>Cryptantha sp.</i>	Rancher's fireweed
	Cryptantha sp.
<b>Brassicaceae</b>	
<i>Brassica tournefortii*</i>	Mustard Family
<i>Hirschfeldia incana*</i> ( <i>Brassica geniculata</i> )	Sahara mustard
	Short-pod mustard
<b>Cactaceae</b>	
<i>Opuntia parryi</i> ( <i>O. californica</i> var. <i>parkeri</i> )	Cactus Family
	Snake cholla
<b>Caprifoliaceae</b>	
<i>Sambucus mexicana</i>	Honeysuckle Family
	Blue elderberry
<b>Chenopodiaceae</b>	
<i>Chenopodium sp.</i>	Goosefoot Family
<i>Salsola tragus*</i>	Goosefoot
	Tumble weed/Russian thistle
<b>Convolvulaceae</b>	
<i>Convolvulus arvensis*</i>	Morning-glory Family
	Bindweed
<b>Cucurbitaceae</b>	
<i>Cucurbita foetidissima</i>	Gourd Family
	Calabazilla
<b>Euphorbiaceae</b>	
<i>Croton californicus</i>	Spurge Family
<i>Croton</i> (= <i>Eremocarpus</i> ) <i>setigerus</i>	California croton
<i>Ricinus communis*</i>	Doveweed
	Castor bean

**Table 2. Species Identified in Survey Area**

<b><u>Scientific Name</u></b>	<b><u>Common Name</u></b>
<b>Fabaceae</b>	<b>Pea Family</b>
<i>Astragalus pomonensis</i>	Pomona rattleweed
<i>Lotus scoparius</i>	Deerweed
<b>Fagaceae</b>	<b>Oak Family</b>
<i>Quercus berberidifolia</i>	Scrub oak
<b>Geraniaceae</b>	<b>Geranium Family</b>
<i>Erodium botrys</i> *	Long-beaked filaree
<i>Erodium cicutarium</i> *	Red-stemmed filaree
<b>Hydrophyllaceae</b>	<b>Waterleaf Family</b>
<i>Eriodictyon trichocalyx</i>	Yerba santa
<i>Phacelia ramosissima</i>	Branching phacelia
<b>Juglandaceae</b>	<b>Walnut Family</b>
<i>Juglans californica</i>	California black walnut
<b>Lamiaceae</b>	<b>Mint Family</b>
<i>Marrubium vulgare</i> *	Horehound
<i>Salvia apiana</i>	White sage
<i>Salvia columbariae</i>	Chia
<i>Salvia mellifera</i>	Black sage
<b>Liliaceae</b>	<b>Lily Family</b>
<i>Yucca whipplei</i>	Our Lord's candle
<b>Malvaceae</b>	<b>Mallow Family</b>
<i>Malacothamnus fasciculatus</i>	Chaparral mallow
<b>Myrtaceae</b>	<b>Eucalyptus Family</b>
<i>Eucalyptus sp.</i> *	Eucalyptus sp.
<b>Onagraceae</b>	<b>Evening Primrose Family</b>
<i>Camissonia sp.</i>	None
<b>Paeoniaceae</b>	<b>Peony Family</b>
<i>Paeonia californica</i>	Peony
<b>Papaveraceae</b>	<b>Poppy Family</b>
<i>Dicentra chrysantha</i>	Golden ear-drops
<b>Platanaceae</b>	<b>Sycamore Family</b>
<i>Platanus racemosa</i>	Western sycamore
<b>Poaceae</b>	<b>Grass Family</b>
<i>Avena sp.</i> *	Wild oats
<i>Bromus diandrus</i> *	Common ripgutgrass
<i>Bromus tectorum</i> *	Cheat grass
<i>Leymus condensatus</i>	Giant wild ryegrass
<b>Polemoniaceae</b>	<b>Phlox Family</b>
<i>Eriastrum saphirinum</i>	Woolly-star
<b>Polygonaceae</b>	<b>Buckwheat Family</b>
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Eriogonum gracile</i>	Woolly buckwheat
<i>Eriogonum wrightii</i>	Wild buckwheat

**Table 2. Species Identified in Survey Area**

<u>Scientific Name</u>	<u>Common Name</u>
<b>Rhamnaceae</b>	<b>Buckthorn Family</b>
<i>Ceanothus crassifolius</i>	Hoaryleaf ceanothus
<i>Ceanothus leucodermis</i>	Chaparral whitethorn
<b>Rosaceae</b>	<b>Rose Family</b>
<i>Adenostoma fasciculatum</i>	Chamise
<i>Prunus ilicifolia</i>	Holly-leafed cherry
<b>Scrophulariaceae</b>	<b>Figwort Family</b>
<i>Mimulus sp.</i>	unidentified monkeyflower
<i>Penstemon spectabilis</i>	Penstemon
<b>Solanaceae</b>	<b>Nightshade Family</b>
<i>Nicotiana glauca*</i>	Tree tobacco
<i>Solanum xanti</i>	Purple nightshade
<b>Zygophyllaceae</b>	<b>Caltrop Family</b>
<i>Tribulus terrestris*</i>	Puncture vine
<b>INSECTS</b>	
<b>Acrididae</b>	<b>Grasshoper Family</b>
<i>Dissosteira pictipennis</i>	California rose-winged grasshopper
<b>Araneidae</b>	<b>Orb Weaver Family</b>
<i>Neoscona oxacensis</i>	Common orb weaver
<b>Apidae</b>	<b>Bee Family</b>
<i>Apis mellifera*</i>	Honey bee
<b>Asilidae</b>	<b>Robber Fly Family</b>
unidentified asilid fly	robber fly
<b>Cicadidae</b>	<b>Cicada Family</b>
not identified	Cicada
<b>Coccinellidae</b>	<b>Ladybird Beetle Family</b>
<i>Hippodamia convergens</i>	Convergent ladybird beetle
<b>Formicidae</b>	<b>Ant Family</b>
<i>Pogonomyrmex californicus</i>	California harvester ant
<b>Hesperiidae</b>	<b>Skipper (butterfly) Family</b>
<i>Erynnis funeralis</i>	Funeral duskywing
<b>Libellulidae</b>	<b>Skimmer (dragonfly) Family</b>
<i>Libellula saturata</i>	Big red skimmer
<b>Lycaenidae</b>	<b>Blue and Hairstreak Butterfly Family</b>
<i>Strymon melinus</i>	Common hairstreak
<b>Mutillidae</b>	<b>Velvet Ant Family</b>
<i>Dasymutilla coccinea</i>	Red velvet ant
<i>Dasymutilla nocturna</i>	White velvet ant
<b>Muscidae</b>	<b>Muscid Fly Family</b>
unidentified muscid fly	muscid fly
<b>Pieridae</b>	<b>White and Sulfur Butterfly Family</b>
<i>Pontia protodice</i>	Common white

**Table 2. Species Identified in Survey Area**

<u>Scientific Name</u>	<u>Common Name</u>
<b>Pompilidae</b>	<b>Spider Wasp Family</b>
<i>Pepsis sp.</i>	Tarantula hawk
<b>Sphecidae</b>	<b>Thread-waisted Wasp Family</b>
<i>Bembix sp.</i>	Sand wasp
<b>Syrphidae</b>	<b>Syrphidae Family</b>
<i>Copestylum mexicana</i>	Cactus fly
<b>Tenebrionidae</b>	<b>Darkling Beetle Family</b>
<i>Cratidus osculans</i>	Wooly ground beetle
<i>Eleodes armata</i>	Desert skunk beetle
<b>Vespidae</b>	<b>Vespid Wasp Family</b>
<i>Polistes fuscatus aurifer</i>	Golden polistes
<b>REPTILES</b>	
<b>Phrynosomatidae</b>	<b>none</b>
<i>Sceloporus occidentalis</i>	Western Fence Lizard
<i>Uta stansburiana</i>	Side-blotched Lizard
<b>Teiidae</b>	<b>Whiptails and relatives</b>
<i>Cnemidophorus tigris</i>	Western Whiptail
<b>Viperidae</b>	<b>Vipers</b>
<i>Crotalus ruber ruber</i>	Red Diamond Rattlesnake
<i>Crotalus viridis</i>	Western Rattlesnake
<b>BIRDS</b>	
<b>Accipitriidae</b>	<b>Hawks, Old World Vultures, and Harriers</b>
<i>Elanus leucurus</i>	White-tailed Kite
<i>Accipiter cooperi</i>	Cooper's Hawk
<i>Buteo jamaicensis</i>	Red-tailed Hawk
<b>Falconidae</b>	<b>Caracaras and Falcons</b>
<i>Falco sparverius</i>	American Kestrel
<b>Odontophoridae</b>	<b>New World Quail</b>
<i>Callipepla californica</i>	California Quail
<b>Charadriidae</b>	<b>Plovers and relatives</b>
<i>Charadrius vociferus</i>	Killdeer
<b>Columbidae</b>	<b>Pigeons and Doves</b>
<i>Columba livia I</i>	Rock Dove/Domestic Pigeon
<i>Zenaida macroura</i>	Mourning Dove
<b>Cuculidae</b>	<b>Typical Cuckoos</b>
<i>Geococcyx californianus</i>	Greater Roadrunner
<b>Caprimulgidae</b>	<b>Goatsuckers</b>
<i>Chordeiles acutipennis</i>	Lesser Nighthawk
<b>Apodidae</b>	<b>Swifts</b>
<i>Aeronautes saxatalis</i>	White-throated Swift
<b>Trochilidae</b>	<b>Hummingbirds</b>
<i>Calypte anna</i>	Anna's Hummingbird

**Table 2. Species Identified in Survey Area**

<b><u>Scientific Name</u></b>	<b><u>Common Name</u></b>
<i>Calypte costae</i>	Costa's Hummingbird
<b>Picidae</b>	<b>Woodpeckers and Wrynecks</b>
<i>Colaptes auratus</i>	Northern Flicker
<b>Tyrannidae</b>	<b>Tyrant Flycatchers</b>
<i>Sayornis nigricans</i>	Black Phoebe
<i>Sayornis saya</i>	Say's Phoebe
<i>Myiarchus cinerascens</i>	Ash-throated Flycatcher
<i>Tyrannus vociferans</i>	Cassin's Kingbird
<i>Tyrannus verticalis</i>	Western Kingbird
<b>Laniidae</b>	<b>Shrikes</b>
<i>Lanius ludovicianus</i>	Loggerhead Shrike
<b>Corvidae</b>	<b>Jays, Magpies, and Crows</b>
<i>Aphelocoma californica</i>	Western Scrub-Jay
<i>Corvus brachyrhynchos</i>	American Crow
<i>Corvus corax</i>	Common Raven
<b>Hirundinidae</b>	<b>Swallows</b>
<i>Tachycineta thalassina</i>	Violet-green Swallow
<i>Stelgidopteryx serripennis</i>	Northern Rough-winged Swallow
<i>Petrochelidon pyrrhonota</i>	Cliff Swallow
<b>Aegithalidae</b>	<b>Bushtit</b>
<i>Psaltriparus minimus</i>	Bushtit
<b>Troglodytidae</b>	<b>Wrens</b>
<i>Salpinctes obsoletus</i>	Rock Wren
<i>Thryomanes bewickii</i>	Bewick's Wren
<i>Troglodytes aedon</i>	House Wren
<i>Mimus polyglottos</i>	Northern Mockingbird
<i>Phainopepla nitens</i>	Phainopepla
<i>Geothlypis trichas</i>	Common Yellowthroat
<i>Pipilo maculatus</i>	Spotted Towhee
<i>Pipilo crissalis</i>	California Towhee
<i>Aimophila ruficeps</i>	Rufous-crowned Sparrow
<i>Chondestes grammacus</i>	Lark Sparrow
<i>Amphispiza belli</i>	Sage Sparrow
<i>Ammodramus savannarum</i>	Grasshopper Sparrow
<i>Melospiza melodia</i>	Song Sparrow
<i>Zonotrichia leucophrys</i>	White-crowned Sparrow
<i>Pheucticus melanocephalus</i>	Black-headed Grosbeak
<i>Guiraca caerulea</i>	Blue Grosbeak
<i>Passerina amoena</i>	Lazuli Bunting
<i>Sturnella neglecta</i>	Western Meadowlark
<i>Molothrus ater</i>	Brown-headed Cowbird
<i>Icterus cucullatus</i>	Hooded Oriole
<i>Icterus bullockii</i>	Bullock's Oriole
<i>Carpodacus mexicanus</i>	House Finch

**Table 2. Species Identified in Survey Area**

<u>Scientific Name</u>	<u>Common Name</u>
<i>Carduelis psaltria</i>	Lesser Goldfinch
<i>Carduelis tristis</i>	American Goldfinch
<b>MAMMALS</b>	
<b>Leporidae</b>	<b>Rabbits and Hares</b>
<i>Sylvilagus audubonii</i>	Audubon's Desert Cottontail
<b>Sciuridae</b>	<b>Squirrels, Chipmunks, and Marmots</b>
<i>Spermophilus beecheyi</i>	California Ground Squirrel
<b>Geomyidae</b>	<b>Pocket Gophers</b>
<i>Thomomys bottae</i>	Botta's Pocket Gopher
<b>Heteromyidae</b>	<b>Pocket Mice and Kangaroo Rats</b>
<i>Dipodomys sp.</i>	Kangaroo rat sign
<b>Canidae</b>	<b>Foxes, Wolves, and relatives</b>
<i>Canis latrans HA</i>	Coyote
<b>Felidae</b>	<b>Cats</b>
<i>Lynx rufus</i>	Bobcat
*non-native species	

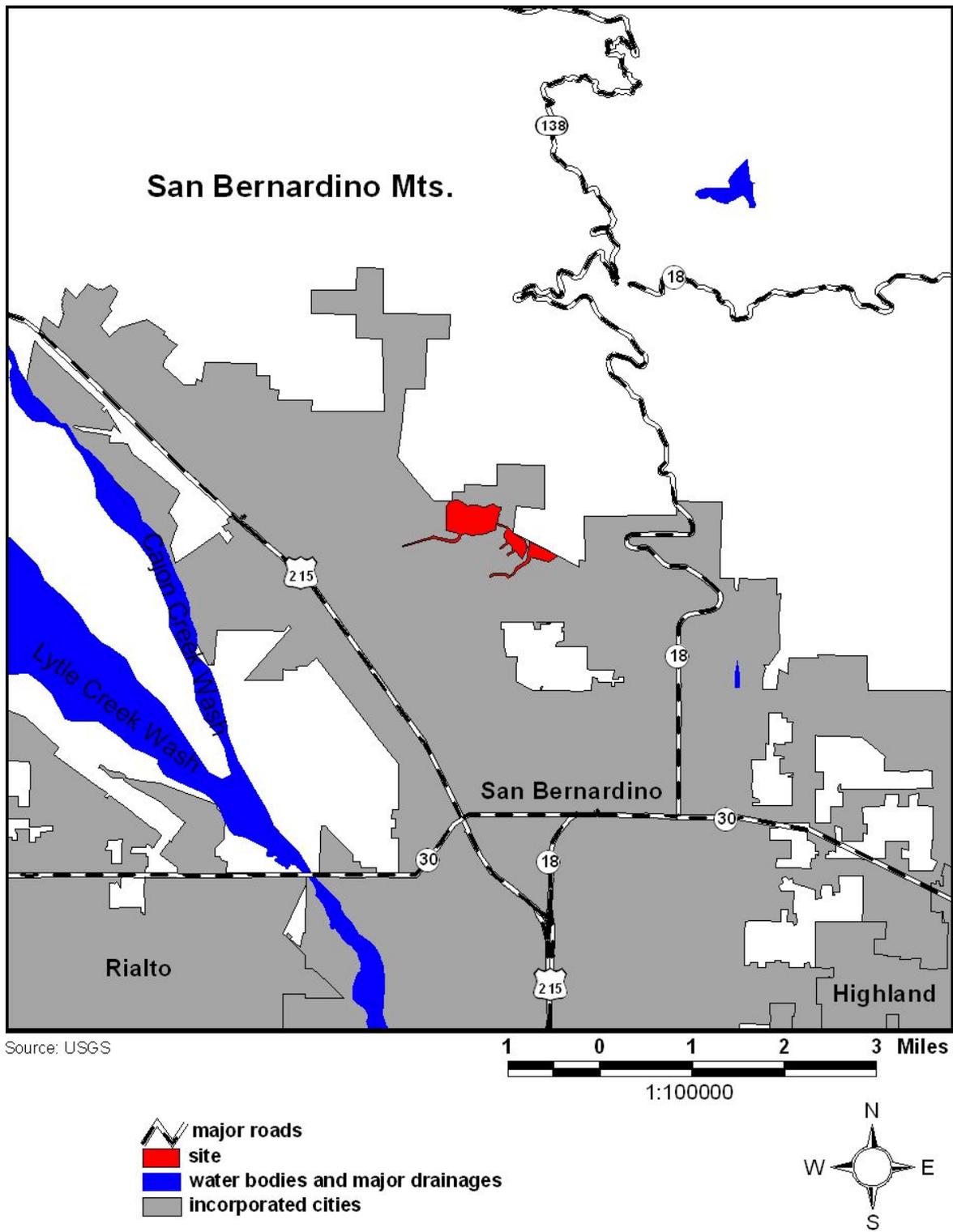
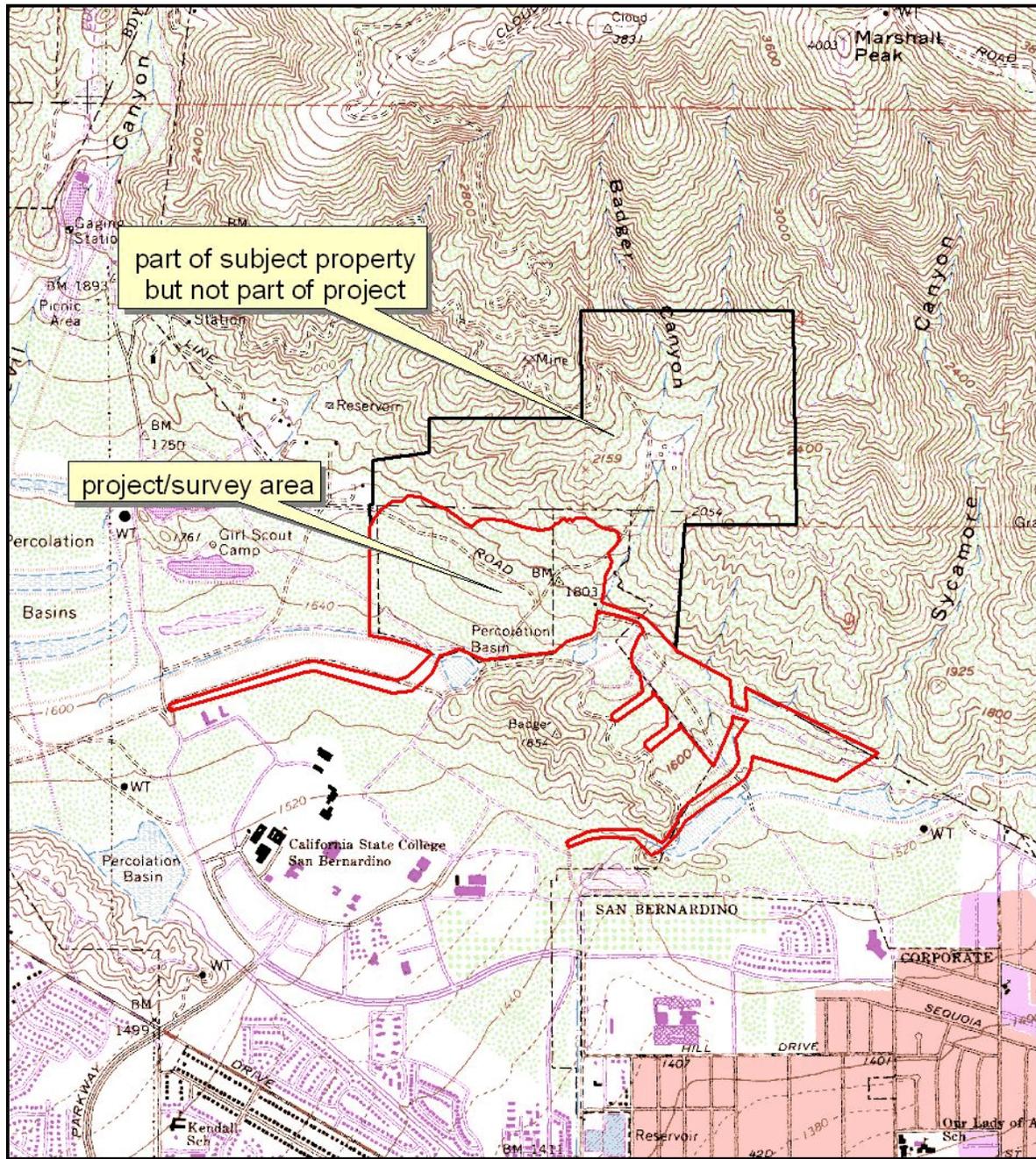


Figure 1. Site Location



Source: USGS 7.5' San Bernardino North Quad

1000 0 1000 2000 3000 Feet

1:24000

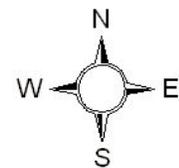
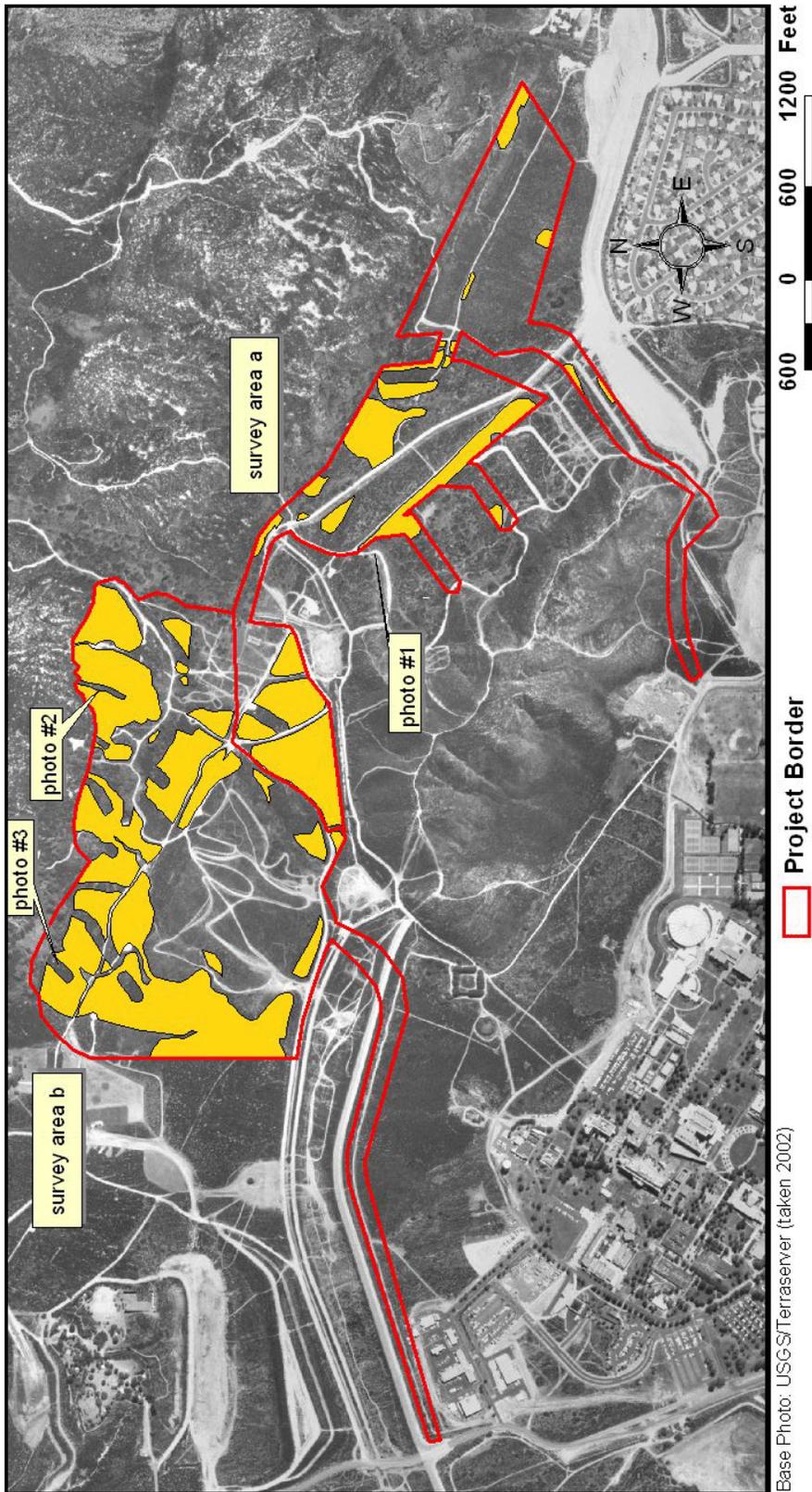
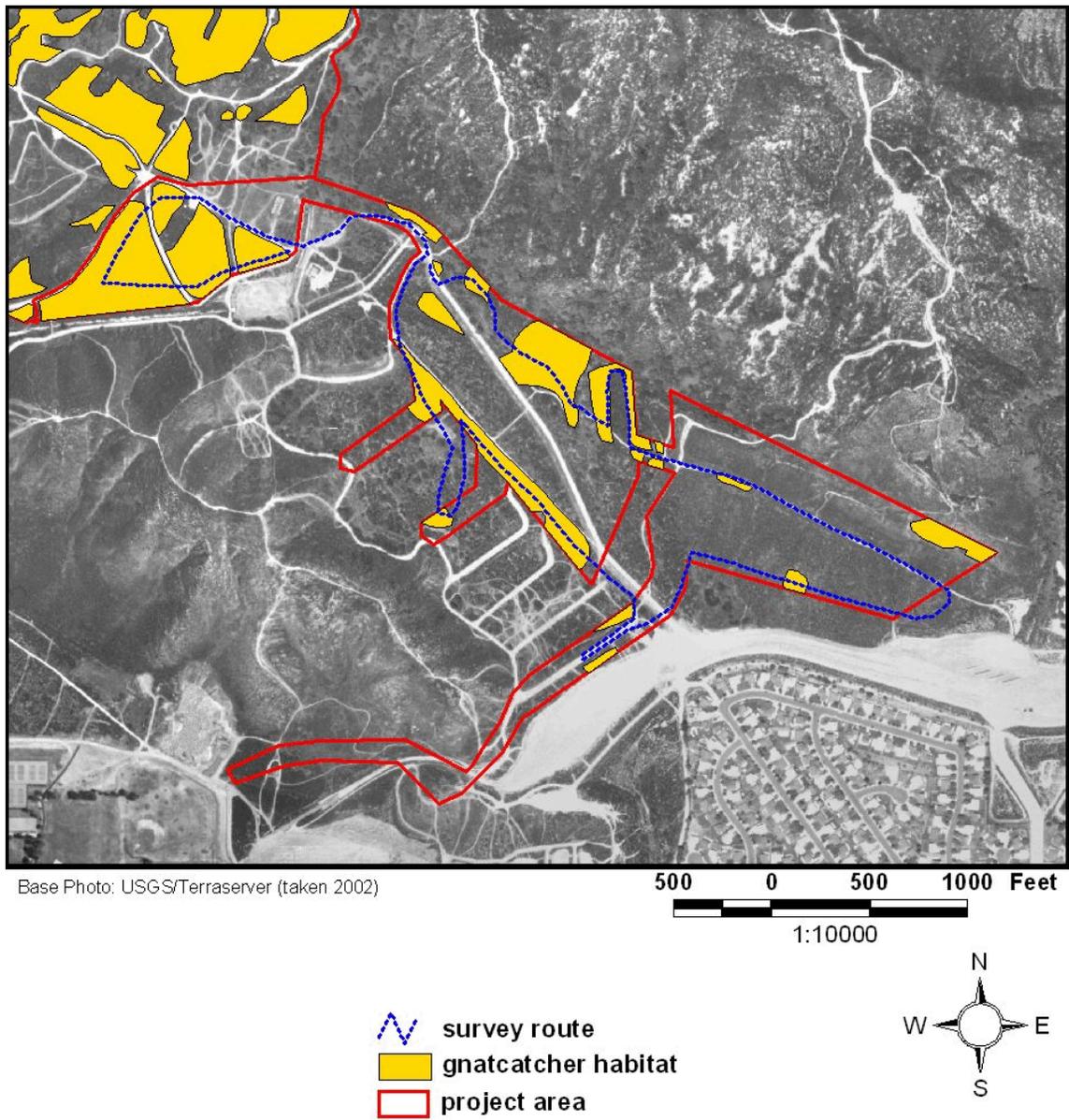


Figure 2. Site Vicinity



This map shows the project/survey area displayed over an aerial photograph of the project area and vicinity. The aerial was taken in 2002; prior to the Old Fire of 2003. Suitable habitat for the gnatcatcher is shown as yellow polygons. The other portions of the site consist of grassland or scrub habitat dominated by deerweed in the flatter areas and by walnut woodlands and grasslands in the hills along the northern edge of the survey areas. The survey was concentrated on the yellow areas. This map also shows the location from which the photos included in this report were taken.

**Figure 3. Habitat Map**



**Figure 4. Survey Area A**

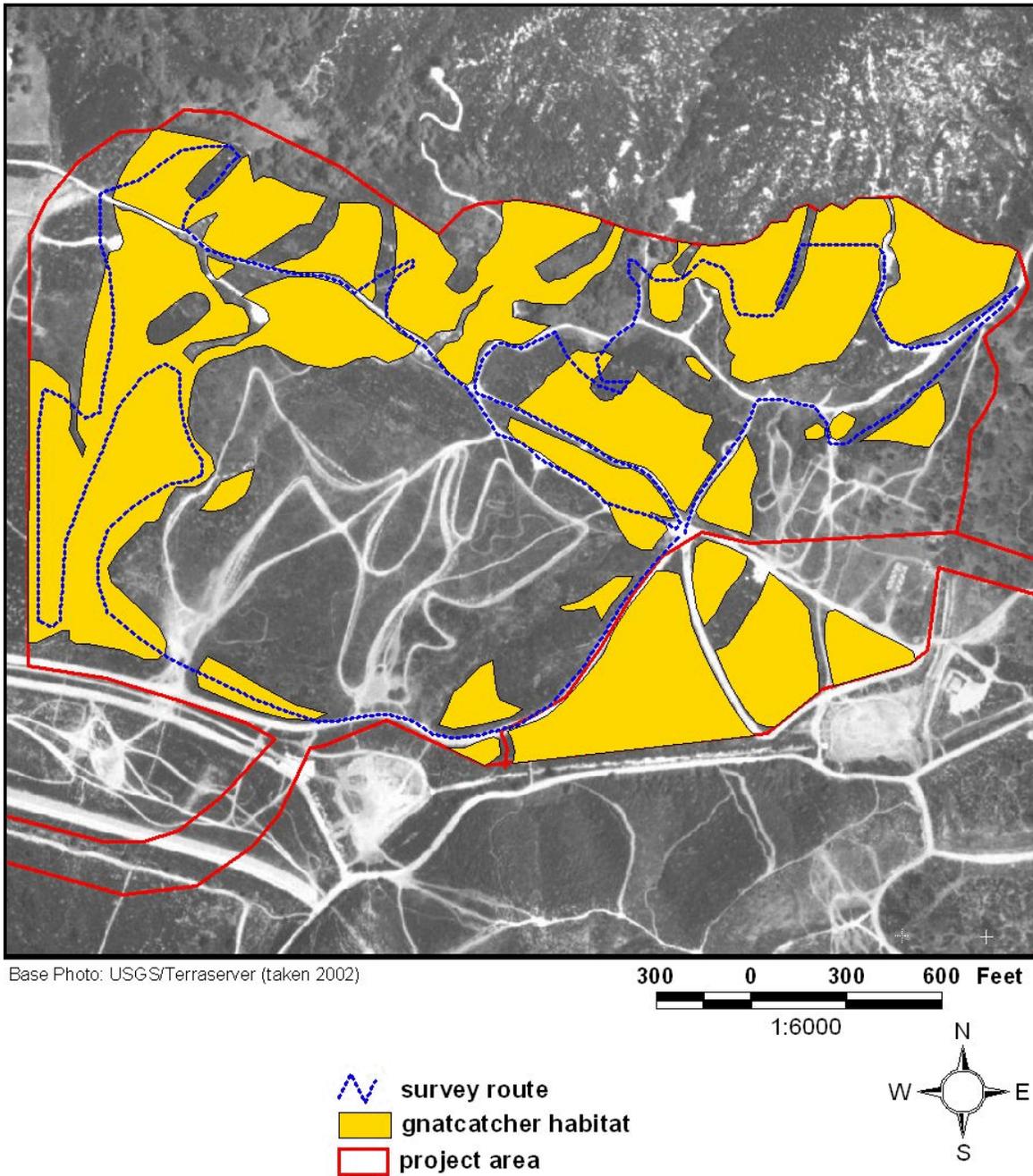


Figure 5. Survey Area B

## REFERENCES

- Atwood, J.L. 1990. Status Review of the California Gnatcatcher (*Polioptila californica californica*). Unpublished technical report. Manomet Bird Observatory, Manomet, Massachusetts.
- Atwood, J.L. and J.S. Bolsinger. 1992. Elevational Distribution of California Gnatcatcher in the United States. *J. Field Ornithol.* 63(2):159-167.
- California Department of Fish and Game. March 2007. *Rarefind 3, Natural Diversity Data Base*.
- Federal Register. 2000. Endangered and Threatened Wildlife and Plants; Final Determination of Critical Habitat for the Coastal California Gnatcatcher. Department of the Interior. 65(206): 63680-63743.
- Federal Register. 2003. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Coastal California Gnatcatcher (*Polioptila californica californica*) and Determination of Distinct Vertebrate Population Segment for the California Gnatcatcher (*Polioptila californica*); Proposed Rule. Department of the Interior. 68(79) 20228-20312.
- Hickman, J.C. 1993. The Jepson Manual: Higher Plants of California. University of California Press, Berkeley, California.
- Holland, V.L. and D.J.Keil. 1990. California Vegetation. 4<sup>th</sup> ed. El Corral Publications, San Luis Obispo, California.
- National Geographic Society. 1987. Field Guide to Birds of North America. 2<sup>nd</sup> ed. National Geographic Society, Washington, D.C.
- Peterson, R. T. 1990. Peterson Field Guides: Western Birds. 3<sup>rd</sup> ed. Houghton Mifflin Company, Boston, Massachusetts.
- Peterson, R. T. 1992. Peterson Field Guides: Western Bird Songs. 2<sup>nd</sup> ed. Houghton Mifflin Company, Boston, Massachusetts.
- Skinner, Mark W. and B.M. Pavlik. eds. 1994. California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California. 5<sup>th</sup> ed. California Native Plant Society, Sacramento, California.
- USFWS. 1997. Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol. United States Fish and Wildlife Service.

## **APPENDIX: SITE PHOTOS**



Photo 1. This photo of survey area was taken from the percolation ponds near the western end of the survey area looking to the east (see Figure 3). The northern project boundary runs along the bottom of the hills on the left side of the picture. The gray line in the distance on the right side of the photo is the edge of the percolation basin adjacent to the eastern end of the project area.



Photo 2. This photo was taken from the hillside near the opening to Badger Canyon looking to the southwest across survey area b. Badger Hill can be seen in the upper right corner of the photo and Cal State San Bernardino can be seen in the distance in the middle of the photo. The southern project border extends to the base of the hill and to the edge of the campus. Vegetation in the foreground shows typical scrub conditions on the hillside. The greener vegetation beyond the foreground scrub is one of the walnut woodland areas with a groundcover of yellowish-green mustard plants.



Photo 3. This photo shows survey area b as seen from the northwestern corner of the project area looking to the southeast. Badger Hill can be seen in the upper right corner of the photo and Cal State San Bernardino is to the right of that. Vegetation in the foreground shows plants typically found growing on the fill of the geological trenches dug in 2005. The green area on the right side of the picture is the ultralight landing field adjacent to the western project boundary.