

**A BIOLOGICAL RESOURCES SURVEY REPORT AND
EVALUATION OF RESOURCE VALUES
FOR
THE MILLER VALLEY RANCH
CONSERVATION / MITIGATION BANK**

Prepared for



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A handwritten signature in black ink, appearing to read 'Vincent N. Scheidt'.

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TABLE OF CONTENTS

	Page
INTRODUCTION	4
SITE DESCRIPTION AND PRESENT LAND USE.....	4
PURPOSE OF STUDY	5
METHODS.....	5
RESULTS	6
Habitats/Vegetation Communities.....	6
Plants.....	9
Animals	10
SENSITIVE RESOURCES.....	10
Sensitive Vegetation Communities	10
Sensitive Plants	11
Sensitive Animals	12
Jurisdictional Wetlands and “Waters”	18
REGIONAL SIGNIFICANCE	19
ANALYSIS OF HABITAT VALUES AND RECOMMENDATIONS	20
REFERENCES.....	22

FIGURES, TABLES & ATTACHMENTS

Figure 1. Regional Location	23
Figure 2. Recent Aerial Photo.....	24
Figure 3. Vegetation Exhibit.....	25
Figure 4. Sensitive Plant Locations	26
Figure 5. Soils Exhibit	27
Figure 6. Proposed Service Area – Upland Credits	28
Figure 7. Proposed Service Area – Wetland Credits.....	29
Table 1. Recent Field Surveys.....	30
Table 2. Plant Communities Represented Onsite.....	31
Table 3. Flora Detected	32
Table 4. Fauna Detected	37
Table 5. Sensitive Species Known from Vicinity.....	41
Table 6. Available Mitigation Acre-credits.....	43
Attachment A. CNDDDB Forms	44
Attachment B. 45-Day Survey Reports.....	53
Attachment C. Affinis 2006 Wetland Exhibit.....	85

INTRODUCTION

This report presents the findings of a series of biological field surveys and an analysis of biological resource values associated with the approximately 477.00-acre Miller Valley Ranch property ("the Property"); APNs 609-130-01-07, 609-120-14-07, 609-020-01-06, 609-020-05-10, 609-010-01-10, and a portion of 609-010-02-06. The Property consists of mostly undeveloped land located off Miller Valley Road in the Mountain Empire area of unincorporated San Diego County, California (Figure 1).

The majority of the Property is being proposed for perpetual protection as a 23.43-acre Mitigation Bank and a 466.84-acre Conservation Bank (Bank Property). A 2.66-acre and 7.50-acre portion of the Property would be set aside and is "not-a-part" of the Bank or Bank Property. The Bank Property would offer mitigation and conservation credits and serve as an "offsite" mitigation area to compensate for development-related impacts to natural resources habitat on other properties within established "service areas" (Figures 5 and 6). The entire Bank Property site would be conserved under one or more Conservation Easements to be granted to the California Department of Fish and Wildlife (CDFW) and/or other regulatory bodies or non-governmental organizations (NGOs), as appropriate. As part of the responsibilities of resource management, the biological features of the site will be improved, protected, and managed in perpetuity.

SITE DESCRIPTION AND PRESENT LAND USE

The Property is located in a rural part of eastern San Diego County. There are sparsely scattered homes to the north and south, as well as an existing, historic, single family home on the Property (not-a-part). Portions of the Property, as well as the adjoining property to the north, are currently used for cattle grazing. Grazing of the area has been in place for generations. The Property is generally surrounded by vacant, mountainous lands supporting habitats similar to those found onsite.

The Property is mostly undeveloped, with moderate to high-value chaparral, scrub, montane meadow, oak woodland, and riparian habitats (Table 2). Miller Creek and several of its tributaries cross the southern half of the Property. Two historic ponds are also present in association with these drainages. Additional ephemeral drainages are found elsewhere onsite. Several dirt roads currently cross the Property, including Miller Valley Road.

Slopes are gentle to steep, and elevations onsite range between approximately 3,220 feet and 3,760 feet MSL. Soil-types found onsite (Figure 5) include La Posta loamy coarse sand (LaE2) on

slopes between 5 and 30 percent, Calpine coarse sandy loam (CaD2) on slopes between 9 and 15 percent, Mottsville loamy coarse sand (MvC) on slopes between 2 and 9 percent, La Posta rocky loamy coarse sand (LcE2) on slopes between 5 and 30 percent, Tujunga sand (TuB) on slopes between zero and 5 percent, Tollhouse rocky coarse sandy loam (ToG) on slopes between 30 and 65 percent, loamy alluvial land (Lu), and Acid igneous rock land (AcG).

PURPOSE OF STUDY

The purpose of this study is to assemble a species inventory of the Property, identify and map all onsite habitats/plant communities, and search for signs of rare, endangered, threatened, or otherwise sensitive plants or animals that could occur on the Property. These data have been used in an assessment of biological resource values, as they relate to the permanent preservation of the Property as a formal Conservation/Mitigation Bank.

METHODS

Field surveys of the Property were conducted in February and April of 2008, March through May of 2010, January of 2011, and April through July of 2011. The specific dates, personnel, and weather conditions are presented in Table 1. Investigators included the author (VS), Julia Groebner (JG), Associate Biologist, Viviane Marquez (VM), Associate Biologist, Brandon Myers (BM), Joseph Scheidt (JS), Olivia Scheidt, (OS), and Allison Myers (AM), Field Assistants.

Field surveys were conducted by slowly walking all accessible areas of the Property, with a focus on biologically diverse areas. All plants, animals, and habitats encountered were inventoried in the field, or on the basis of characteristic parts brought back for more detailed analysis. Wildlife observations were made opportunistically. Binoculars were used to aid in observations, and all wildlife species detected were noted. Remote areas and areas supporting very dense brush or very steep slopes were surveyed with binoculars. The limits of each habitat-type were mapped in the field utilizing an aerial photograph of the Property (Figure 3). All plants and animals identified in association with the site are listed in Tables 3 and 4 at the end of this report.

Floral nomenclature used in this report follows Hickman (1993) and others. Plant communities follow Holland (1996, as amended). Animal nomenclature used in this report is taken from Pyle (1995) for butterflies, Stebbins (1985) for reptiles and amphibians, American Ornithologist's Union (1983, as updated) for birds, and Jameson and Peeters (1992) for mammals.

Five directed or “focused” biology studies were conducted as part of the Property surveys. These included a protocol Quino Checkerspot Butterfly (*Euphydryas editha quino*) flight season survey, a protocol Arroyo Toad (*Bufo californicus*) survey, a protocol Least Bell’s Vireo (*Vireo bellii pusillus*) survey, a protocol Southwestern Willow Flycatcher (*Empidonax trailii extimus*) survey, and a spring rare plant survey. Other studies included a formal Jurisdictional Wetland Delineation of the Property and a Wetlands Functional Assessment for segments of Miller Creek and tributaries. Detailed vegetation mapping and habitat assessments for other sensitive species were included in the various field studies conducted during the survey period.

A previous biology study of the Property was completed by Affinis Environmental Services in the spring and summer of 2006. The results of these surveys are summarized in “Biological Reconnaissance, Miller Valley Ranch” (Affinis, 2006). Where applicable, the raw data from that report have been incorporated into the current document.

RESULTS

Habitats/ Vegetation Communities

The Property supports seven broadly overlapping vegetation communities, or habitats, as defined by Holland (1996). These are Chaparral, Oak Woodland, Scrub, Montane Meadow, Riparian, Non-native Grassland, and Unvegetated Habitats. Within most of these broad categories are one or more subcategories, as described below and listed in Table 2. The approximate distribution of these habitats is shown in Figure 3.

Granitic Chamise Chaparral (Holland Code 37210) – 336.06 acres

The majority of the Property supports Granitic Chamise Chaparral (GCC). This habitat-type is dominated by Chamise (*Adenostoma fasciculatum*) and Interior Scrub Oak (*Quercus berberidifolia*). Cane Cholla (*Opuntia parryi*), Mexican Manzanita (*Arctostaphylos pungens*), Buck-brush Lilac (*Ceanothus leucodermis*), Veatch’s Silk Tassel (*Garrya veatchii*), Our Lord’s Candle (*Yucca whipplei*), and many other species are occasional in the chaparral. Some areas of the GCC are dense and impenetrable, while others are more open and exhibit disturbance due to cattle grazing. This habitat-type exhibits large-block connectivity with expansive stands of chaparral located to the north, west, south, and east. The biological resource value of this habitat-type is moderate.

Red Shank Chaparral (Holland Code 37300) – 3.87 acres

Several small areas of Red Shank Chaparral (RSC) are found at the northern end of the Property. These areas are dominated by Red Shank (*Adenostoma sparsifolium*) growing on more deeply

drained soils. Other plant species found in association with the Red Shank include Great Basin Sagebrush (*Artemisia tridentata*), Flat-top Buckwheat (*Eriogonum fasciculatum*), and Cane Cholla. The biological resource value of the RSC is moderate, although grazing has impacted this habitat fairly severely. Much of the understory has been trampled by cattle for many years, and the Red Shank shrubs themselves have been grazed up as high as the cattle can reach. This habitat-type continues offsite to the east for a short distance.

Great Basin Scrub (Holland Code 35000) – 57.77 acres

Patches of Great Basin Scrub (GBS) are found on the flatter portions of the Property and as interstices within the chaparral in areas with more deeply drained soils. Great Basin Sagebrush is the dominant plant in this habitat-type, with lesser numbers of Cane Cholla, Flat-top Buckwheat, Veatch's Silk Tassel, Pine Goldenbush (*Ericameria pinifolia*), Mormon Tea (*Ephedra californica*), Holly-leaf Cherry (*Prunus ilicifolia*), and annuals such as Stork's-bill (*Erodium* sp.), Cheat Brome (*Bromus tectorum*), and Common Cryptantha (*Cryptantha intermedia*) in open areas. This habitat-type could alternatively be mapped as Big Sagebrush Scrub (Holland Code 35210). The biological resource value of the GBS is moderate to high.

Flat-top Buckwheat (Holland Code 37K00) – 5.12 acres

Flat-top Buckwheat (FTB) vegetation occurs along the eastern side of Miller Valley Road and in several smaller patches near the center of the site. This habitat-type is dominated by Flat-top Buckwheat, with Cane Cholla, Mormon Tea, and Dragon Sagewort (*Artemisia dracunculus*) in smaller numbers. Annuals in this habitat include Common Goldfields (*Lasthenia gracilis*), Tidy Tips (*Layia platyglossa*), and other locally abundant species. The FTB along Miller Valley Road appears to be a product of long-term brush management over many decades, and the area is stable and type-converted to this habitat-type. The biological resource value of the FTB is moderate to high.

Montane Meadow (Holland Code 45100) – 43.55 acres

The floor of Miller Valley supports Montane Meadow (MM) vegetation. Indicators in this habitat include Mexican Rush (*Juncus mexicanus*), Desert Salt Grass (*Distichlis spicata*), Yerba Mansa (*Anemopsis californica*), Vervain (*Verbena lasiostachys*), Bird's-foot Lotus (*Lotus corniculatus*), and non-native grasses. Senescent willows (*Salix* sp.) are occasional in the meadow, and scattered Mule Fat (*Baccharis salicifolia*) specimens are found in the eastern meadow area. Limited numbers of upland species, such as Common Dandelion (*Taraxacum officinale*) and Great Basin Sagebrush, are also present in and at the periphery of the meadow. This is typical of this type of habitat in the site's vicinity. Cattle are grazed in this area, which maintains the vegetation in a very low stature. However, the grazing is relatively low-intensity, and the area is still clearly dominated by MM indicator species. Therefore, the entirety of this area is most accurately mapped

as MM. The biological resource value of this habitat-type in its current state is moderate to high. Termination of grazing in the meadow areas could result in either a significant increase or significant decrease in the habitat's biological resource value. Without management, there is a risk that palatable weeds could recruit and flourish, followed by thatch development, increased fire risk, etc., in the absence of any grazing. This area would have likely been grazed in the past by Mule Deer, Pronghorn, and possibly Bighorn Sheep. Pleistocene and post-Pleistocene megafauna may have also grazed this area due to the presence of nearby water sources.

Coast Live Oak Woodland (Holland Code 71160) – 13.58 acres

Several patches of Coast Live Oak Woodland (CLOW) are found on the southern half of the site. These consist of mature Coast Live Oaks (*Quercus agrifolia*) over an understory supporting low forbs and annual grasses. Scattered Coast Live Oaks whose canopies are within 100 feet of each other are also considered part of the CLOW. CLOW is also found in association with the existing onsite home and accessory structures. Additional CLOW is found offsite to the south. The biological resource value of this habitat-type is high.

Riparian Woodland (Holland Code 62000) – 2.82 acres

Miller Creek and its tributaries support several patches of Riparian Woodland (RW). This habitat-type is dominated by mature Red and Arroyo Willows (*Salix laevigata*, *S. lasiolepis*). Understory species include Yerba Mansa, Mexican Rush, Wild Rye (*Elymus glaucus*), and other hydrophytic forbs. A concrete dam and small pond are present in association with the largest patch of RW. Part of the understory of this area was mowed on occasion in the past to allow for access to pond, which is lined with Cattails (*Typha* sp). Duckweed (*Lemna* sp.) is present on the surface of the water. The understory species present in the northernmost area of RW are the same as those associated with the surrounding Montane Meadow and are maintained at a very low stature due to cattle grazing. In any case, the biological resource value of the RW is high.

Open Water (Holland Code 13100) – 0.40 acre

A second, larger pond is present onsite to the west of the existing home. This pond supports perennial standing water (OW), although the water level varies seasonally. The pond is lined with Freshwater Marsh and additional Riparian Woodland. The pond is located within a tributary to Miller Creek that originates at a natural spring to the north. The pond was created by the construction of an earthen dam within this tributary and the pond's concrete spillway drains into Miller Creek.

Freshwater Marsh (Holland Code 52400) – 1.24 acres

As mentioned, the larger pond is lined with Cattails and Bulrush (*Scirpus* sp.), which qualify as Freshwater Marsh vegetation (FWM). Watercress (*Rorippa nasturtium-aquaticum*) and Seep

Monkeyflower (*Mimulus guttatus*) are present in the shallow water at the pond's edges. Another area of FWM is found in association with the floodway of Miller Creek and one of its tributaries. The marsh in the creeks' floodways is characterized by Yerba Mansa, Rush, Douglas Sagewort (*Artemisia douglasiana*), other herbaceous hydrophytes, and scattered willows. The biological resource value of the FWM onsite is high.

Non-native Grassland (Holland Code 42200) – 2.17 acres

An area surrounding the existing home is regularly mowed and maintained for fire safety. This area supports Non-native Grassland (NNG) and is dominated by Mustard (*Brassica* sp.), Stork's-bill, and other non-native grasses and forbs. Occasional native species are also found in the NNG, including annual buckwheat, sun cup (*Camissonia* spp.), and others. The biological resource value of this habitat-type is moderate.

Disturbed and Urban/Developed Habitat (Holland Codes 11300 and 12000) – 0.26 acres

An existing historic home is present on the southern portion of the site. This qualifies as Urban/Developed Habitat (UD). This habitat-type is also present offsite to the north and southeast of the site in the form of homes and agricultural lands. Several dirt roads, including Miller Valley Road, cross the site. These roads consist of bare dirt and qualify as supporting DH. The biological resource value of these habitat-types is low.

Plants

The plant species observed on the Property typify the diversity normally found in mostly-undisturbed chaparral, oak woodland, sage scrub, grassland, and riparian habitats in this region of eastern San Diego County. A complete list of the plants detected on the Property can be found in Table 3, attached. One hundred and sixty-two (172) plant species were identified onsite. This list would be expected to represent at least 80 percent of the naturalized plants occurring on this Property. The balance (mostly winter-flowering, ephemeral, or inconspicuous annuals) would be detectable at other times of the year. Three of the plant species observed onsite are considered sensitive. These are discussed in detail in a subsequent section of this report.

As mentioned above, previous biological surveys of the Property were conducted by Affinis Environmental Services in 2006. With the exception of a few species (which appear to be taxonomic misidentifications), all of the plant species reported by Affinis have been incorporated into Table 3 at the end of this report.

Animals

A great diversity of fauna, totaling one hundred and eighteen (118) species of animals, was detected onsite during the field surveys. This represents generally common species, abundant in the site's vicinity. Some, however, are rare and constitute locally significant populations of their respective species. Most of the animals detected are species associated with mostly-undisturbed chaparral, oak woodland, sage scrub, grassland, and riparian habitats. Animals observed onsite are listed in Table 4. Thirteen of the animals detected are considered sensitive. Each of these is discussed in detail in a subsequent section of this report.

Previous biological surveys of the Property were conducted by Affinis Environmental Services in 2006. All of the animal species reported by Affinis have been incorporated into Table 4 at the end of this report.

SENSITIVE RESOURCES

Sensitive Vegetation Communities

Vegetation communities (habitats) are generally considered "sensitive" if; (a) they are recognized by the County of San Diego as being generally depleted; (b) they are considered rare within the region by local experts, (c) they are known to support sensitive animal or plant species; and/or (d) they are known to serve as important wildlife corridors. These sensitive habitats are typically depleted throughout their known ranges, or are highly localized and/or fragmented.

All of the native and naturalized plant communities on the Property considered sensitive in that they support substantial populations of sensitive species. The Montane Meadow, Open Water, Riparian Woodland, and Freshwater Marsh are the most sensitive habitats on this Property, from a regional perspective. These habitats also have the highest rankings and highest mitigation requirements of any of the habitats on the site. Second in regional importance are the areas of Coast Live Oak Woodland, Great Basin Scrub, and Flat-top Buckwheat. Third in regional importance and sensitivity are the Granitic Chamise Chaparral, Red Shank Chaparral, and Non-native Grassland, although the location of the chaparral onsite within a much larger block of this habitat-type increases its biological value from a regional perspective.

Sensitive Plants

Sensitive plants are those listed as "Rare", "Endangered", "Threatened", "of Special Concern", or otherwise considered noteworthy by the County of San Diego, the CDFW, the USFWS, the California Native Plant Society (CNPS), or other conservation agencies, organizations, or local botanists.

Three sensitive plant species were observed on the Property during the field surveys. These are Jacumba Milk-vetch, Sticky Geraea, and Payson's Jewelflower. Jacumba Milk-vetch and Sticky Geraea are herbaceous perennials that were previously reported from the site. These species were searched for and their locations were mapped during the 2010 spring rare plant survey. Payson's Jewelflower, an ephemeral annual, was discovered during the 2010 spring rare plant survey, and the locations of this species were also mapped (Figure 4). Each of these species is discussed in more detail below:

Jacumba Milk-vetch

Astragalus douglasii* var. *perstrictus

Listing: CRPR List 1B.2

County status: San Diego County Sensitive Plant List, Group A (DPLU, 2006)

Federal Protection status: none

State Protection status: none

Distribution: Interior areas of Riverside and San Diego Counties and adjacent Baja California, Mexico. Reported localities in San Diego County include In-ko-pah Gorge, Jacumba, Live Oak Springs, Cameron Corners, Campo, Tierra Del Sol, Morena Reservoir, Mount Laguna, Sombrero Peak, and Descanso.

Habitat(s): Occurs in chaparral, cismontane woodland, piñon and juniper woodland, riparian scrub, and valley and foothill grassland between 900 and 1370 meters in elevation.

Status Onsite: No less than 89 specimens of Jacumba Milk-vetch have been observed onsite within the Great Basin Scrub, Granitic Chamise Chaparral, and Coast Live Oak Woodland habitats. Most of these are growing in association with disturbed areas, such as along the shoulders of dirt roads or in openings in the chaparral. Because of the low growth form of this species (Jacumba Milk-vetch can be difficult to detect in circumstances where it grows in dense brush), it is likely that at least 200 or more specimens are present on the Property.

Sticky Geraea

Geraea viscida

Listing: CRPR List 2B.3

County status: San Diego County Sensitive Plant List, Group B (DPLU, 2006)

Federal Protection status: none

State Protection status: none

Distribution: Interior areas of San Diego County and adjacent Baja California, Mexico. Reported localities in San Diego County include Portrero, Campo, Dubber, Tierra del Sol, Cameron Corners, Boulevard, McCain Valley, Bankhead Springs, La Posta Indian Reservation, and Manzanita. Specimens are also reported from adjacent Imperial County.

Habitat(s): Occurs in openings in desert transition chaparral and related xeric

uplands, often in greatest abundance following a fire.

Status Onsite: At least 559 specimens have been observed onsite, most in lightly disturbed and open, sandy areas of the Granitic Chamise Chaparral, Great Basin Scrub, and Flat-top Buckwheat. It is possible that grazing aids in the spread of this species, as the highest concentrations of Sticky Geræa onsite are found in association with areas of the chaparral that are subject to light grazing. Because of the low growth form of this species (Sticky Geræa can be difficult to detect in circumstances where it grows in dense brush), it is likely that at least 1,000 or more specimens are present on the Property.

Payson's Jewelflower

Caulanthus simulans

Listing: CRPR List 4.2

County status: San Diego County Sensitive Plant List, Group D (DPLU, 2006)

Federal Protection status: none

State Protection status: none

Distribution: San Diego, Orange, and Riverside Counties and adjacent Baja California, Mexico. Reported localities in San Diego County include Culp Valley, San Felipe Valley, Bankhead Springs, Harper's Ranch, Jacumba, Warner's Hot Springs, Grapevine Canyon, Montezuma Viewpoint, Thing Valley, Rancho Cuyamaca State Park south of Fern Flat and Little Stonewall Peak, McCain Valley, east of Banner, and at Scissor's Crossing.

Habitat(s): Found in chaparral or coastal scrub vegetation on sandy or granitic soils, at elevations between 90 and 2200 meters

Status Onsite: At least thousands of specimens of this uncommon plant are present on the project site, occurring by the hundreds in the more-or-less discrete areas where they are found. The species is found entirely within the Granitic Chamise Chaparral habitat onsite. As an annual, population numbers fluctuate markedly from year to year, depending of rainfall and other factors.

Comments: This species is often confused with *C. heterophyllus* var. *pseudosimulans* (unlisted), which is more coastal in distribution and, unlike *C. simulans*, appears in abundance after fires.

Other sensitive plants with a reasonable probability of occurring onsite are listed in Table 5.

Sensitive Animals

Sensitive animals are those listed as "Rare", "Endangered", "Threatened", "of Special Concern", or otherwise considered noteworthy by the County of San Diego, the CDFW, the USFWS, the National Audubon Society, or other conservation agencies, organizations, or local zoologists.

Fifteen sensitive animals were detected on the Property during the field survey. These are Cooper's Hawk (*Accipiter cooperii*), Sharp-shinned Hawk (*Accipiter striatus*), Tri-colored Blackbird (*Agelaius tricolor*), Red-shouldered Hawk (*Buteo lineatus*), Mountain Quail (*Callipepla picta eremophila*), Turkey Vulture (*Cathartes aura*), Western Bluebird (*Sialia mexicana*), San Diego Black-tailed Jackrabbit (*Lepus californicus bennettii*), Bobcat (*Lynx rufus*), San Diego Desert Woodrat (*Neotoma lepida intermedia*), Mule Deer (*Odocoileus hemionus*), Coastal Western Whiptail (*Cnemidophorus tigris multiscutatus*), Two-striped Gartersnake (*Thamnophis hammondi*), Coronado Skink (*Eumeces skiltonianus interparietalis*), and San Diego Horned Lizard (*Phrynosoma coronatum blainvillei*). Each of these species is discussed in more detail below:

Cooper's Hawk

Accipiter cooperii

Listing: "Species of Local Concern" (Tate, 1986)

County status: San Diego County Sensitive Animal List, Group 1 (DPLU, 2006)

State status: "Watch List" (CDFG, 2008)

Federal status: none

Distribution: Occurs throughout most of North America, from northern Mexico to southern Canada

Habitat(s): Inhabits a variety of woodlands, including oak woodlands, riparian and coniferous forests

Status on Site: Specimens observed flying over various parts of the Property. Likely a resident breeding species in the vicinity, and although nesting was not specifically observed during the field surveys, it likely occurs onsite.

Sharp-shinned Hawk

Accipiter striatus

Listing: State status: "Watch List" (CDFG, 2008)

County status: San Diego County Sensitive Animal List, Group 1 (DPLU, 2006)

Federal status: none

Distribution: Occurs throughout a large part of North America. Populations in the northern part of the range migrate south and spend the non-breeding season (winter) in the southern U.S., Mexico, and Central America. Resident populations exist in temperate parts of the U.S., Canada, Mexico, and some parts of the Caribbean.

Habitat(s): Woodland and chaparral

Status on Site: A single Sharp-shinned Hawk was observed flying over the Property. This specimen undoubtedly resides in the site's vicinity, although only as a winter migrant. It is unlikely that this species nests in the site's vicinity, as this is a mostly migratory species in San Diego County.

Comments: Like many raptors, Sharp-shinned Hawks have suffered a loss of habitat as well as having been directly persecuted through shooting, egg collecting, and other forms of harassment.

Tri-colored Blackbird

Agelaius tricolor

Listing: State Status: "Species of Special Concern" (CDFG, 2008)

County status: San Diego County Sensitive Animal List, Group 1 (DPLU, 2006)

Federal status: "Bird of Conservation Concern" (USFWS, 2010)

Distribution: The Pacific coast of North America, from Northern California in the U.S. (with occasional strays into Oregon), to northern Baja California, Mexico.

Habitat(s): Agricultural areas, grasslands, rangelands, and freshwater marshes dominated by cattails or bulrushes.

Status on Site: Reported from the Property by Affinis in 2006.

Red-shouldered Hawk

Buteo lineatus

Listing: "Blue List" (Tate, 1986)

County status: San Diego County Sensitive Animal List, Group 1 (DPLU, 2006)

State status: none

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: Several specimens seen soaring over the site and roosting in large trees during many of the field surveys.

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.

Mountain Quail

Callipepla picta eremophila

Listing: Federal/State status: none

County status: San Diego County Sensitive Animal List, Group 2 (DPLU, 2006)

Distribution: West of the Rocky Mountains to Baja California, Mexico

Habitat(s): Mountainous chaparral up to 3000 meters above sea level

Status on Site: Reported from the Property by Affinis in 2006.

Turkey Vulture

Cathartes aura

Listing: "Blue-list" (Tate, 1986)

"Declining" (Unitt, 1984)

County status: San Diego County Sensitive Animal List, Group 1 (DPLU, 2006)

Federal/State status: none

Distribution: Ranges from southern Canada to Argentina

Habitat(s): Open areas, farmlands, grasslands. Usually seen soaring overhead or sometimes perched on poles, dead trees, or on the ground.

Status on Site: Numerous adult specimens observed soaring over the Property during the field surveys.

Western Bluebird

Sialia mexicana

Listing: "Blue List" (Tate, 1986)

County status: San Diego County Sensitive Animal List, Group 2 (DPLU, 2006)

Federal/State status: none

Distribution: Occurs throughout the western United States

Habitat(s): Inhabits open areas, especially at the edges of woodlands or near farms

Status on site: Western Bluebirds were observed foraging in the Montane Meadow on several survey days. The open character of much of the Property suits this species well, and bluebirds likely nest on or nearby this site.

San Diego Black-tailed Jackrabbit

Lepus californicus bennettii

Listing: State status: "Species of Special Concern" (CDFG, 2008)

County status: San Diego County Sensitive Animal List, Group 2 (DPLU, 2006)

Federal status: none

Distribution: Cismontane and transmontane areas of southern California and adjacent areas of northern Baja California, Mexico

Habitat(s): Associated with areas of open brush and grassland vegetation

Status on Site: San Diego Black-tailed Jackrabbit is a relatively common species on the subject Property, with many observations made during the site surveys.

Comments: Black-tailed Jackrabbits are declining in Southern California as a result of development, hunting and pest control, and agricultural land conversions.

Bobcat

Lynx rufus

Listing: County status: none

State status: Regulated Furbearer (CDFG, 2003)

Federal status: none

Distribution: Southern Canada to central Mexico

Habitat(s): Brushy areas, including chaparral, sage scrub, woodlands, and forests. Rarely seen during daylight hours. Secretive and often occurs on properties without being readily detected.

Status on Site: Scats and tracks observed in various areas, indicating movement throughout most of the Property.

San Diego Desert Woodrat

Neotoma lepida intermedia

Listing: State status: "Species of Special Concern" (CDFG, 2008)

County status: County of San Diego Sensitive Animals List, Group 2 (DPLU, 2006)

Federal status: none

Distribution: Coastal and desert areas of Southern California

Habitat(s): Open, dry, rocky hillsides in coastal sage scrub and chaparral

Status on Site: Affinis reports observing numerous nests characteristic of this species in the chaparral onsite. However, in the absence of trapping or active habitat destruction, it is not possible to determine with absolute certainty whether or not these nests were constructed by *N. lepida* or the related but larger and more common *N. macrotus*.

Comments: San Diego Desert Woodrats are declining primarily as a result of habitat loss through urbanization or agricultural conversion of coastal habitat areas.

Mule Deer

Odocoileus hemionus

Listing: State status: Regulated Game Animal (CDFG, 2003)

County status: San Diego County Sensitive Animal List, Group 2 (DPLU, 2006)

"MSCP Indicator" (DPLU, 1993)

Federal status: none

Distribution: Found over much of western North America, from Mexico to southern Canada. Fairly common in San Diego County foothill areas, although persisting in some coastal localities (e.g.: Torrey Pines)

Habitat(s): Woodlands, chaparral, sage scrub, grasslands. Usually indicated by distinctive scats, occasionally by sightings of specimens themselves.

Status on Site: Scats and tracks well-distributed onsite.

Comments: The presence of Mule Deer is representative of large-block habitat contiguity.

Coastal Western Whiptail

Cnemidophorus tigris multiscutatus

Listing: State status: none

County status: San Diego County Sensitive Animal List, Group 2 (DPLU, 2006)

Federal status: Former Federal Endangered Species Candidate, C2 (USFWS, 1996)

Distribution: Cismontane areas of southern California south into Baja California Norte, Mexico

Habitat(s): Mainly inhabits coastal sage scrub and chaparral where it occurs in areas of friable soils on hillsides and in canyons but also may be found in open, dry riparian areas.

Status on Site: Single specimen observed onsite, although this species is likely fairly common in areas of open brush.

San Diego Horned Lizard

Phrynosoma coronatum blainvillei

Listing: "Endangered" (San Diego Herpetological Society, 1980)

County status: San Diego County Sensitive Animal List, Group 2 (DPLU, 2006)

State status: "Species of Special Concern" (CDFG, 2008)

Federal status: none

Distribution: Ventura County south into northern Baja California. Specimens found from sea level to mountain elevations and down desert slopes to the edge of the low desert.

Habitat(s): Open sage scrub, grassland, forested areas and chaparral.

Status on Site: Several specimens observed in open areas of the chaparral and scrub during the various field surveys. This cryptic species is probably relatively common onsite.

Two-striped Gartersnake

Thamnophis hammondii

Listing: Federal: none

State status: "Species of Special Concern" (CDFG, 2008)

County status: San Diego County Sensitive Animal List, Group 2 (DPLU, 2006)

Distribution: San Diego County south through northern Baja California.

Habitat(s): Resident in most upland habitats, including grassland, scrubs, chaparrals, and woodlands.

Status on site: A single specimen observed foraging in the Montane Meadow near southern end of the Property. This active snake is anticipated to be a fairly common resident species near the creek and in areas adjacent to the ponds.

Coronado Skink

Eumeces skiltonianus interparietalis

Listing: Federal/State status: none

County status: San Diego County Sensitive Animal List, Group 2 (DPLU, 2006)

Distribution: San Diego County south through northern Baja California.

Habitat(s): Resident in most upland habitats, including grassland, scrubs, chaparrals, and woodlands.

Status on site: A single specimen observed beneath a flat board adjacent to the Montane Meadow near southern end of the Property. This lizard is anticipated to be a fairly common resident species in more mesic areas.

Other sensitive animals with a reasonable probability of occurring onsite are listed in Table 5.

Quino Checkerspot Butterfly Flight Season Survey

A Quino Checkerspot Butterfly presence/absence survey of the Property was conducted by David K. Faulkner, Entomologist, in 2006, under Federal Recovery Permit #TE838743-3. The results of this survey are summarized in "Miller Ranch Property, Quino Checkerspot Butterfly Surveys, 2006" (Faulkner, 2006). Resident butterfly species listed in that report have been included in Table 4. A habitat assessment and partial protocol flight-season survey for Quino were completed in April of 2009. A third, more complete protocol Quino Checkerspot Butterfly presence/absence survey was conducted in March through May of 2010 (Attachment B).

Quino Checkerspot Butterfly is a federally-listed Endangered Species known to occur in portions of San Diego and Riverside County. This distinctive and colorful, medium-sized butterfly is apparently restricted to open habitats supporting at least one of several

larval food-plants, including Plantain (*Plantago erecta*), Owl's Clover (*Orthocarpus purpurascens*), Yellow Bush Penstemon (*Keckiella antirrhinoides*), Chinese Houses (*Collinsia heterophylla*) and/or other plants in the Scrophularaceae family. Quino Checkerspot Butterfly is also dependent on several specific habitat features, in addition to the presence of appropriate larval food-plants, such as "hilltopping" sites for adult butterflies to gather for breeding/territorial displays, nectaring sites for adult butterflies, specific physiographic features of the site, openings in the vegetation, and possibly cryptogamic crust soils. Our understanding of this poorly known species suggests that Quinos are dependent on these site features; in their absence, it is unlikely that Quino would be a resident species.

The Property supports certain features that constitute Quino indicators, including several large "hilltopping" and nectaring sites. These are mostly found near the southern end of the Property, in the form of open, rocky ridges, knolls, and peaks supporting an abundance of flowering plants. However, the presence of Quino larval host plants onsite in any significant densities appears to be limited to two areas near the northern portion of the Property and two areas along the eastern Property boundary (Attachment B). These areas consist of scattered patches of *Collinsia* growing in sandy openings in the chaparral. No other recognized larval food plants were detected onsite. Therefore, our survey concentrated on the identified hilltopping and nectaring sites, as well as the areas with the most *Collinsia*, as these areas were determined to have the highest probability of supporting Quino.

Quino Checkerspot Butterfly was not detected at any time during the protocol surveys. As a result of this survey, the Property is currently considered "unoccupied" by this federally-listed Endangered Species, although, as the species recovers, it is possible that Quino could recruit onto this site in the future. Furthermore, it should be noted that there are currently some unanswered questions regarding the taxonomy of the interior versus the coastal/foothills populations of *E. e. quino*. Some investigators suspect that these disjunct populations may represent different taxa.

Arroyo Toad Protocol Survey

Arroyo Toad, a federally-listed Endangered Species, breeds in open, exposed riparian habitats with sand and gravel banks, interspersed with shallow, slow-moving water. Most of the riparian habitat on the Property supports a closed canopy over a willow thicket. However, the northern segment of Miller Creek where it crosses the Montane Meadow, northeast of the existing home and near the headwaters of the creek, supports sand banks, open habitat, and shallow, slow-moving water. Thus, the probability for Arroyo Toad to occur on this Property as a breeding species is considered moderate in this area. Also, offsite (downstream) segments of

Miller Creek are reported to support Arroyo Toad breeding habitat. Because reported breeding habitat is present within one mile of the Property, the entire site is considered potentially suitable upland aestivation and foraging habitat for this species. This is because Arroyo Toads are known to disperse up to 1.2 miles into upland habitats from known breeding areas in order to forage and aestivate.

A series of six Arroyo Toad presence/absence field surveys, pursuant to the current USFWS protocol, were completed for the Property during April, May, and June of 2011 (Attachment B). Field surveys were conducted by the author, along with Brandon Myers, Joseph Scheidt, and Olivia Scheidt, Field Assistants. No Arroyo Toads were detected during any of the nocturnal surveys for this species.

Least Bell's Vireo Protocol Survey

Least Bell's Vireo, a state-listed and federally-listed Endangered migratory songbird, occurs in dense, willow-dominated riparian habitats similar to those found in patches along portions of Miller Creek. The nearest known breeding records for this species are near Campo, which is about 6 miles to the southwest of the Property, although some investigators have reported vireo from nearby La Posta Creek, which is only about 2.8 miles to the northwest.

A series of eight Least Bell's Vireo presence/absence field surveys, pursuant to the current USFWS protocol, were completed for the Property in April, May, June and July of 2011 by the author. Least Bell's Vireos were not detected onsite during any of the protocol surveys (Attachment B). The Property is therefore considered "unoccupied" by this state and federally-listed Endangered Species, although, as the species recovers, it is possible that Vireo could recruit onto this site in the future, particularly if the habitat improves by significantly enhancing the Riparian Woodland.

Southwestern Willow Flycatcher Protocol Survey

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. Portions of the habitat along Miller Valley Creek are potentially suitable for this species. The nearest known reproducing populations of this very rare species are on the west side of El Capitan Reservoir, approximately 25 miles to the northwest.

A series of three Southwestern Willow Flycatcher presence/absence field surveys, pursuant to the current USFWS protocol, were completed for the Property in May, June, and July of

2011 (Attachment B). These surveys were conducted by Vivian Marquez in possession of Federal 10 (a)(1)(a) Recovery Permit PRT-800390-9. Surveys focused on the areas of the site with the highest probability of supporting breeding habitat for this species. No Southwestern Willow Flycatchers were detected onsite during any of the protocol surveys. The site is therefore considered “unoccupied” by this federally-listed species.

Jurisdictional Wetlands and “Waters”

As mentioned above, Miller Creek and several of its tributaries cross the southern half of the Property. Portions of these drainages support hydrophytes, a “bed and bank”, and perennial to seasonal running water. All of the areas onsite that exhibit these characteristics qualify as “waters of the state”, “waters of the U.S.”, and state (CDFW) wetlands. This includes the areas mapped as Riparian Woodland, Open Water, Freshwater Marsh, and areas of the Montane Meadow that are dominated by hydrophytes. Some of these habitat-types also qualify as federal (Army Corps of Engineers) wetlands. While preparing their original Biological Reconnaissance report, Affinis examined potential jurisdictional wetlands and “waters” present onsite. The exhibit showing the results of their examination is included for reference as Attachment C.

A formal Jurisdictional Wetland Delineation, prepared in compliance with the 1987 Unified Federal Method for Wetland Delineation (including the Arid West Regional Supplement (2008), and pursuant to state and federal standards, was completed in April of 2011 (Attachment D). This verified the presence of significant state and federal wetlands and “waters” on the site, most in association with Miller Valley Creek and its tributaries.

A Wetland Functional Assessment, using the recommended Hydrogeomorphic (HGM) Approach, was completed for a portion of Miller Creek in August 2011. This assessment provided a baseline analysis of wetland functions for a proposed Rehabilitation Area (RA) located on a portion of the Property. The assessment determined the level at which each wetland function is currently operating compared to a reference standard site, as recommended by the regulatory agencies, and it determined how the proposed rehabilitation activities within the rehabilitation will improve the wetland functions and values in the future.

REGIONAL SIGNIFICANCE

The Property is located in the middle of a large block of mostly-undisturbed native vegetation that extends from the Mexican border north to the Cleveland National Forest. The

chaparral onsite exhibits large-block habitat connectivity with additional undisturbed chaparral to the north, south, east, and west. Therefore, the entire Property and surrounding undeveloped lands function as part of this significant, large-scale, regional wildlife and habitat linkage. Preservation of the site, including the Miller Valley Ranch Conservation/Mitigation Bank site, will contribute to the habitat connectivity in this regional linkage in perpetuity.

Undeveloped Bureau of Land Management (BLM) lands adjoin the Property to the north and west, and the Campo Indian Reservation adjoins to the east. The Property is mapped on the County of San Diego's "East County Multiple Species Conservation Program Working Draft Focused Conservation Areas (FCA)" exhibit as "Agriculture or Natural Upland within FCA" and "Riparian/Wetland Habitat and Transition Zone within FCA", meaning that it is part of the draft East County Multiple Species Conservation Program (MSCP) Subarea Plan's conceptual preserve.

AN ALYSIS OF HABITAT VALUES AND RECOMMENDATIONS

The Property supports an extremely rich diversity of native species, including hundreds of species of native plants and animals, many of them locally or regionally sensitive. The vast majority of the Property is in a natural, undisturbed state, making its biological resource value very high. The conservation of this large, highly significant core of habitat containing a large wetland area (slated for rehabilitation) will preserve an essential block of biological diversity and ensure the survival of numerous species found on the Property and in the vicinity in perpetuity.

In order to ensure the perpetual viability of the Miller Valley Ranch Conservation/Mitigation Bank site, a Conservation Easement will be granted to the CDFW and/or other regulatory body or NGO, as determined to be appropriate. The bank will be managed by an approved Habitat Manager, pursuant to an approved Long-Term Management Plan (LTMP). The LTMP will specify measures to protect the site in perpetuity, including methods, types, and frequency of monitoring and management activities, types and locations of protective fencing and signage, measures to eradicate or prevent the spread of invasive species, sensitive species monitoring, and other actions designed to maintain the biological resources present onsite. The LTMP will also describe the funding mechanism for the perpetual management of the bank, which is currently proposed to consist of a non-wasting endowment that will be funded as the mitigation credits are sold.

The Property will offer Rehabilitation mitigation credits. Mitigation credits will be calculated at a 1:1 ratio; that is, each acre-unit rehabilitated onsite will correspond to one mitigation acre-credit, with the minimum credit size being 0.01 acre. Significant rehabilitation opportunities exist in association within the RA, which consists of upper segments of Miller Creek and the adjacent

area, most of which is dominated by hydrophytes. These areas are currently subject to cattle grazing, which results in habitat disturbances such as trampling and defecation in the watercourse, etc. The elimination of grazing of Miller Creek along with active revegetation planting will result in a significant increase in the biological resource values and functions of the wetlands and associated wetlands habitats. All rehabilitation activities will be subject to the requirements of an approved Wetland/Waters of the U.S. and Waters Of The State Rehabilitation Plan. The approved Plan will describe site preparation including fencing and exotics removal, planting with indigenous native species, maintenance, and biological monitoring methodologies as required to evaluate and meet specific performance standards. The Plan will also provide a schedule for reporting monitoring results and a discussion of possible remedial (contingency) actions should they be necessary to implement. Species-specific mitigation credits may also be offered for sensitive plants, also at a 1:1 ratio, as appropriate. This will be based on approximate area over which these species were observed to occur onsite. Table 6 summarizes the mitigation acre-credits that the Miller Valley Ranch Conservation/Mitigation Bank proposes to offer.

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**Figure 1. Regional Location – Miller Valley Ranch
Portion of the U.S.G.S. “Cameron Corners” 7.5' Quadrangle**

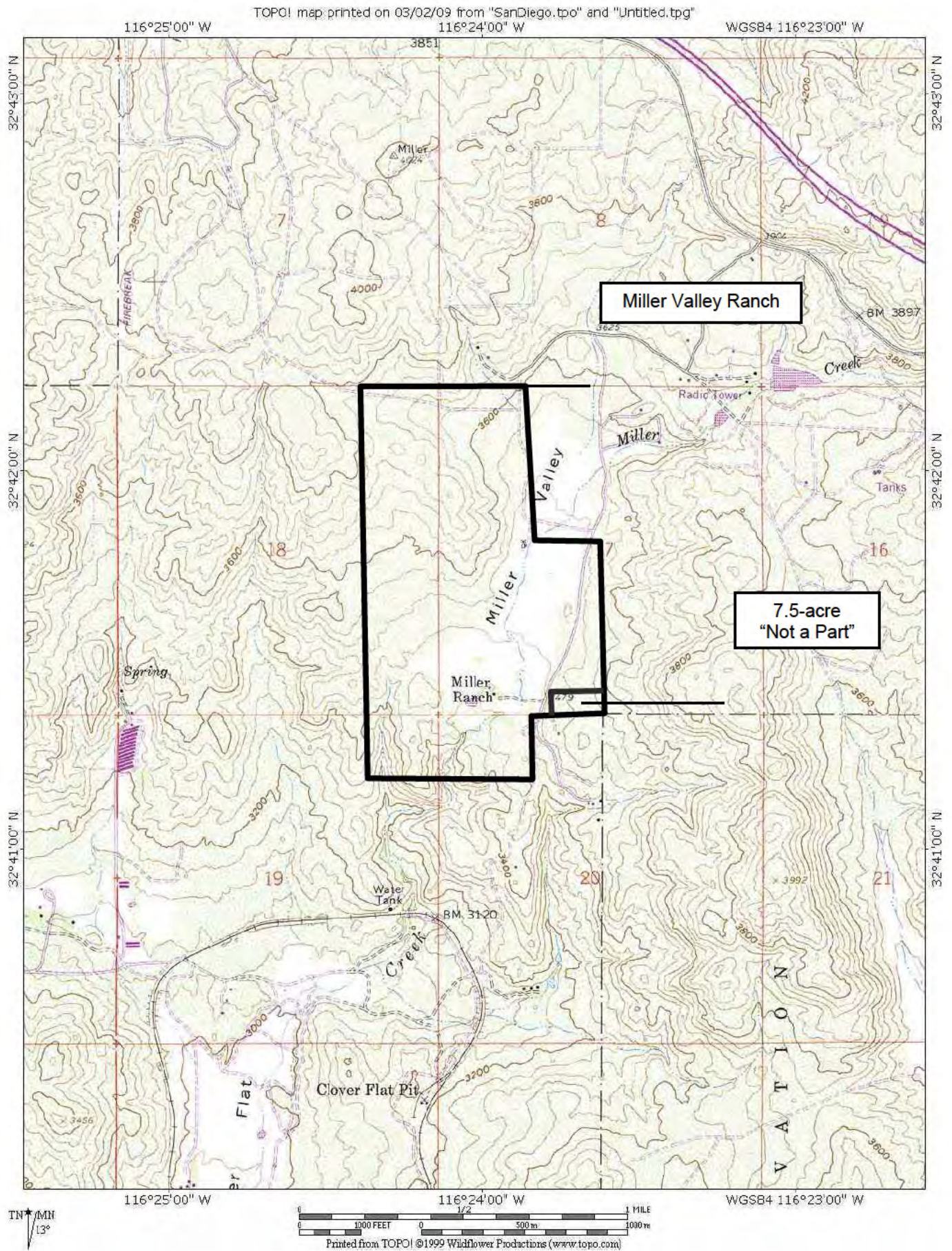


Figure 2. Recent Aerial Photo – Miller Valley Ranch

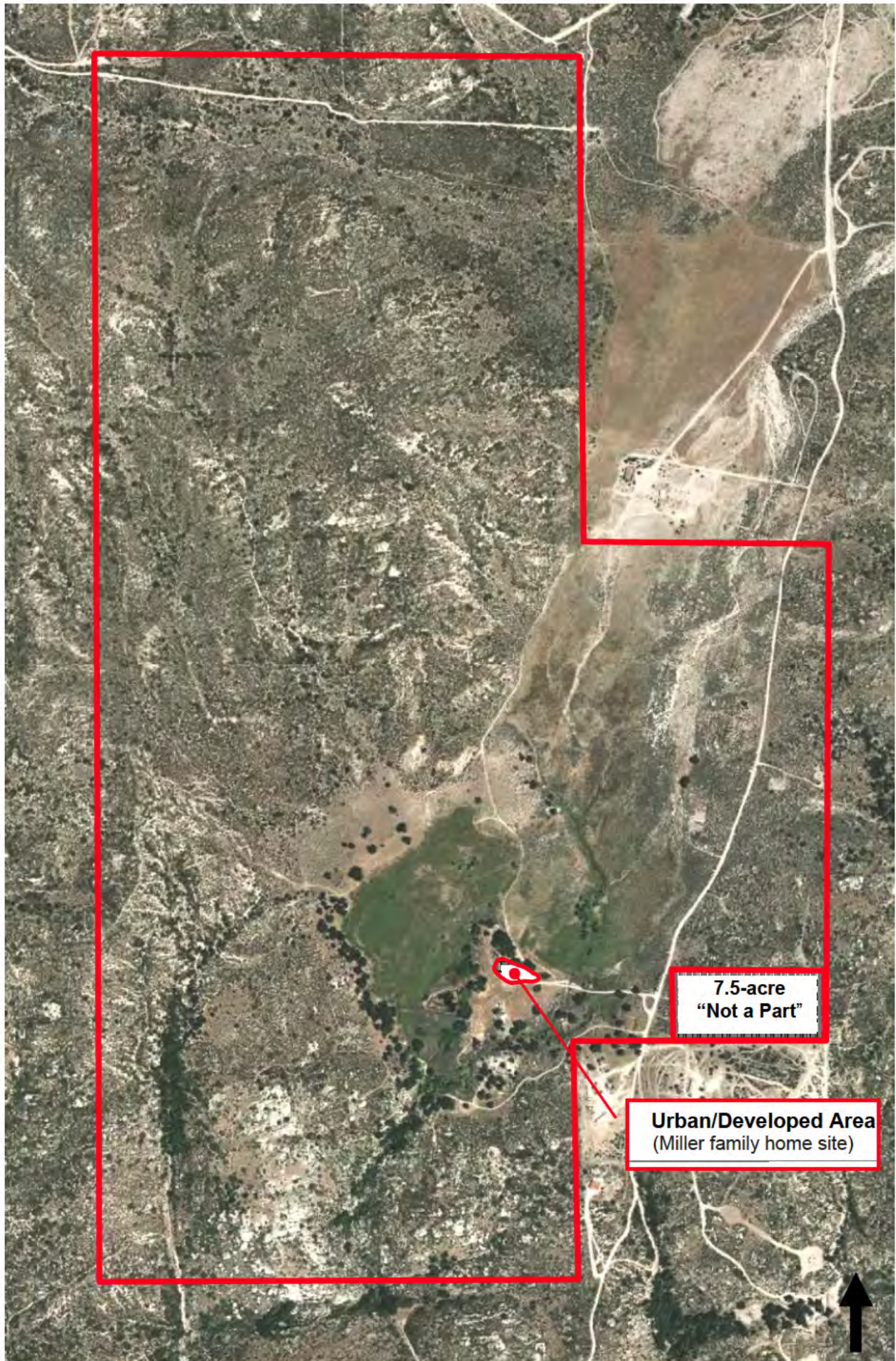


Figure 3. Biological Resources – Miller Valley Ranch

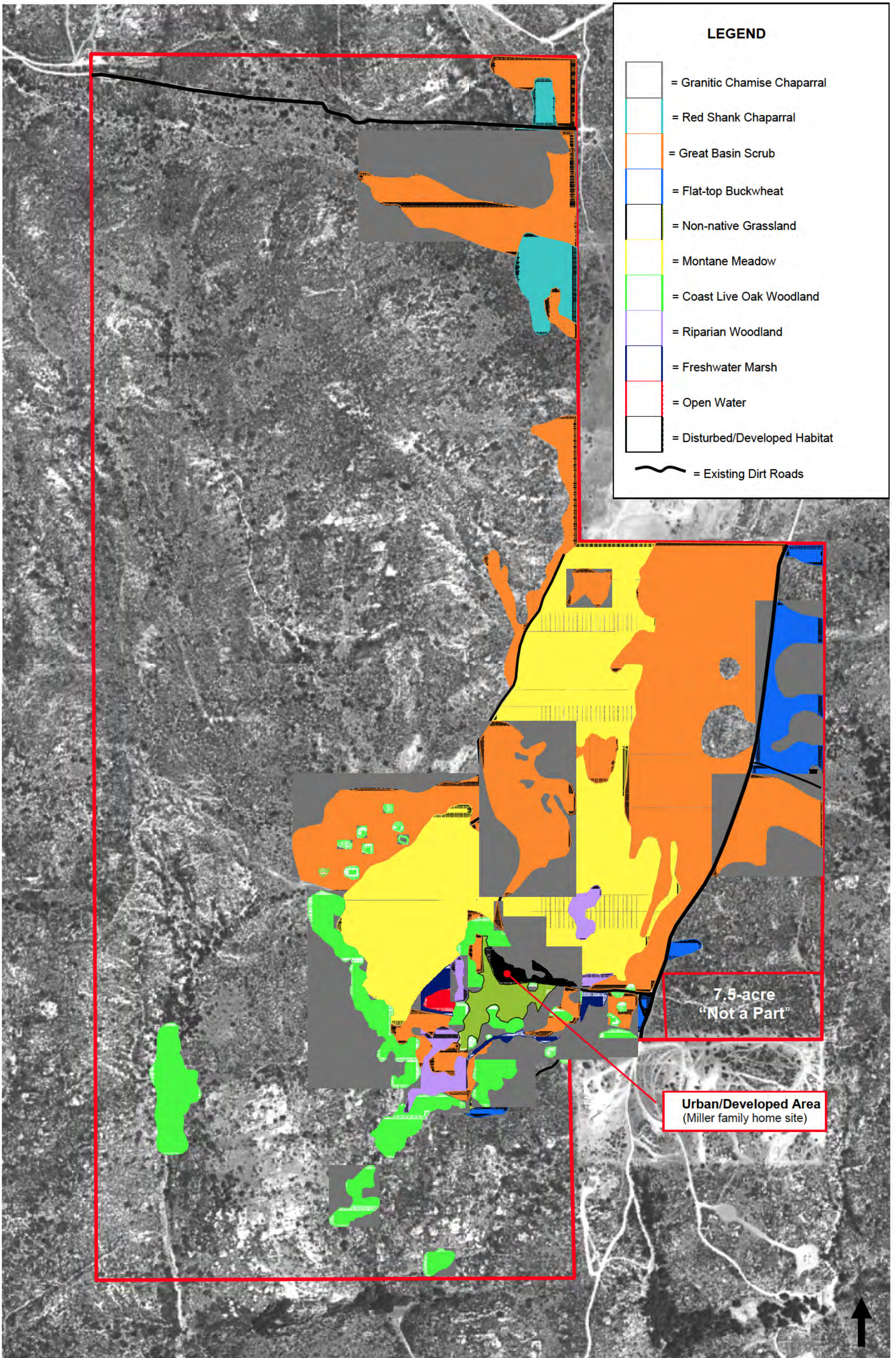


Figure 4. Sensitive Plant Locations – Miller Valley Ranch

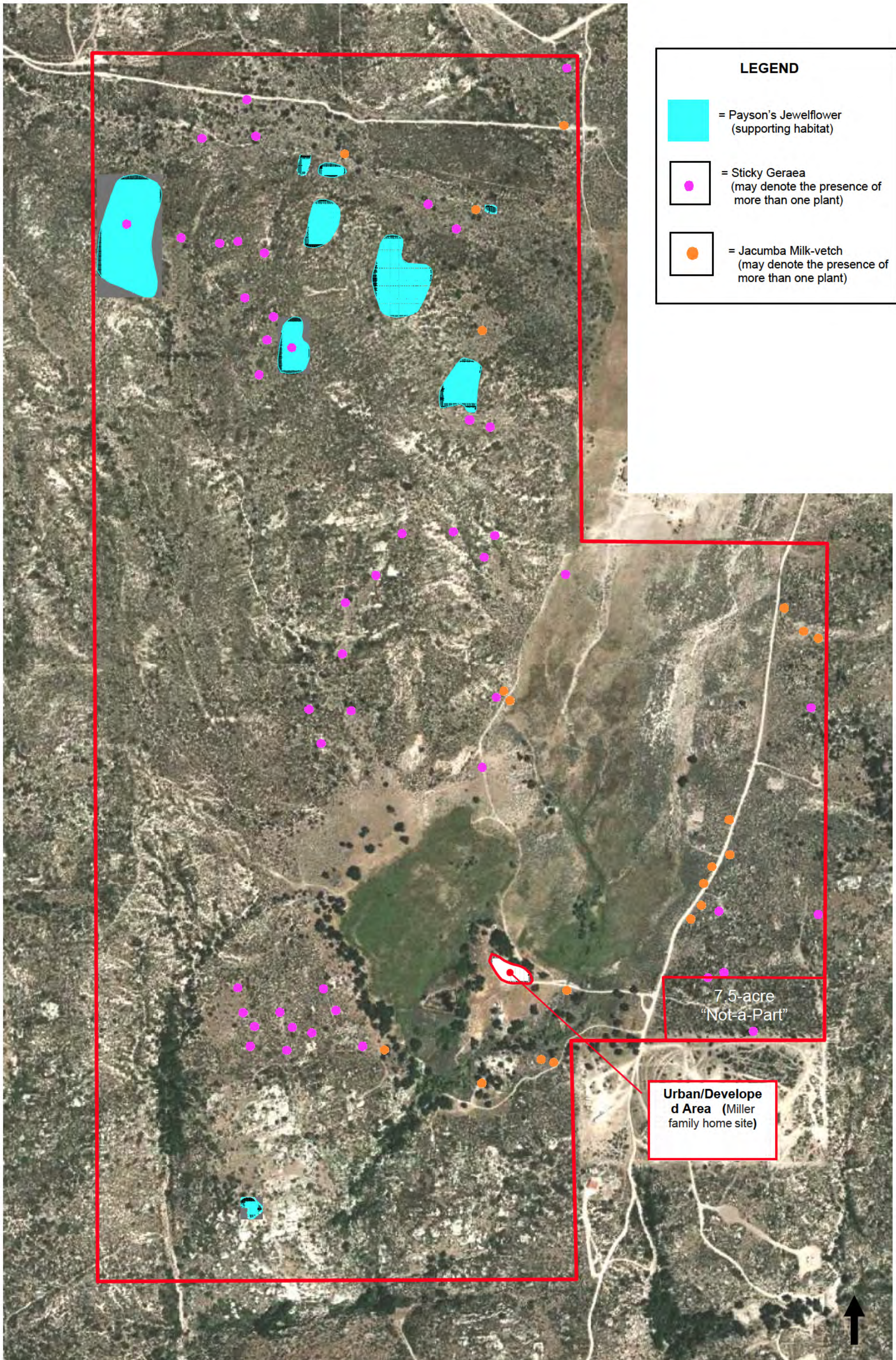
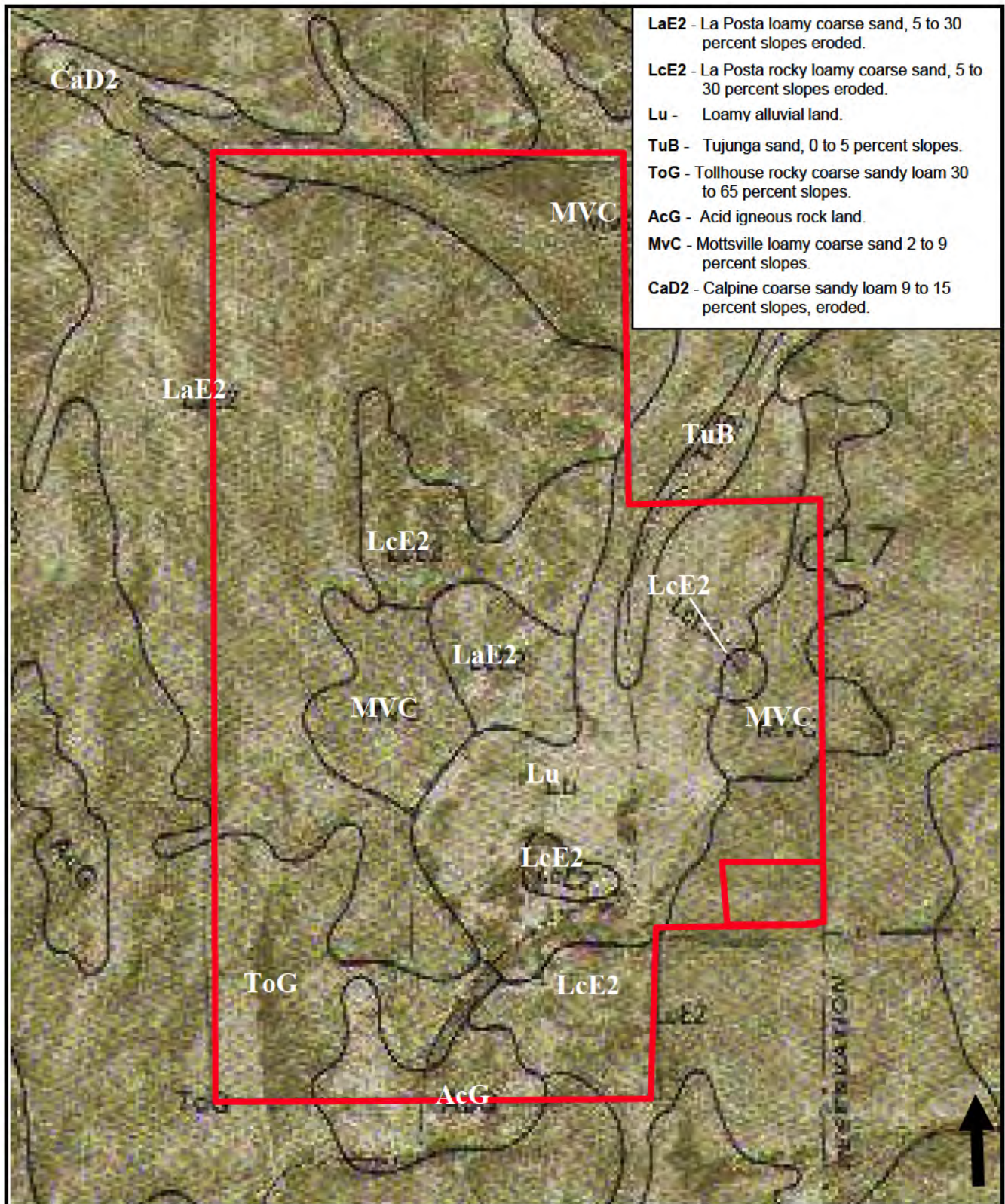
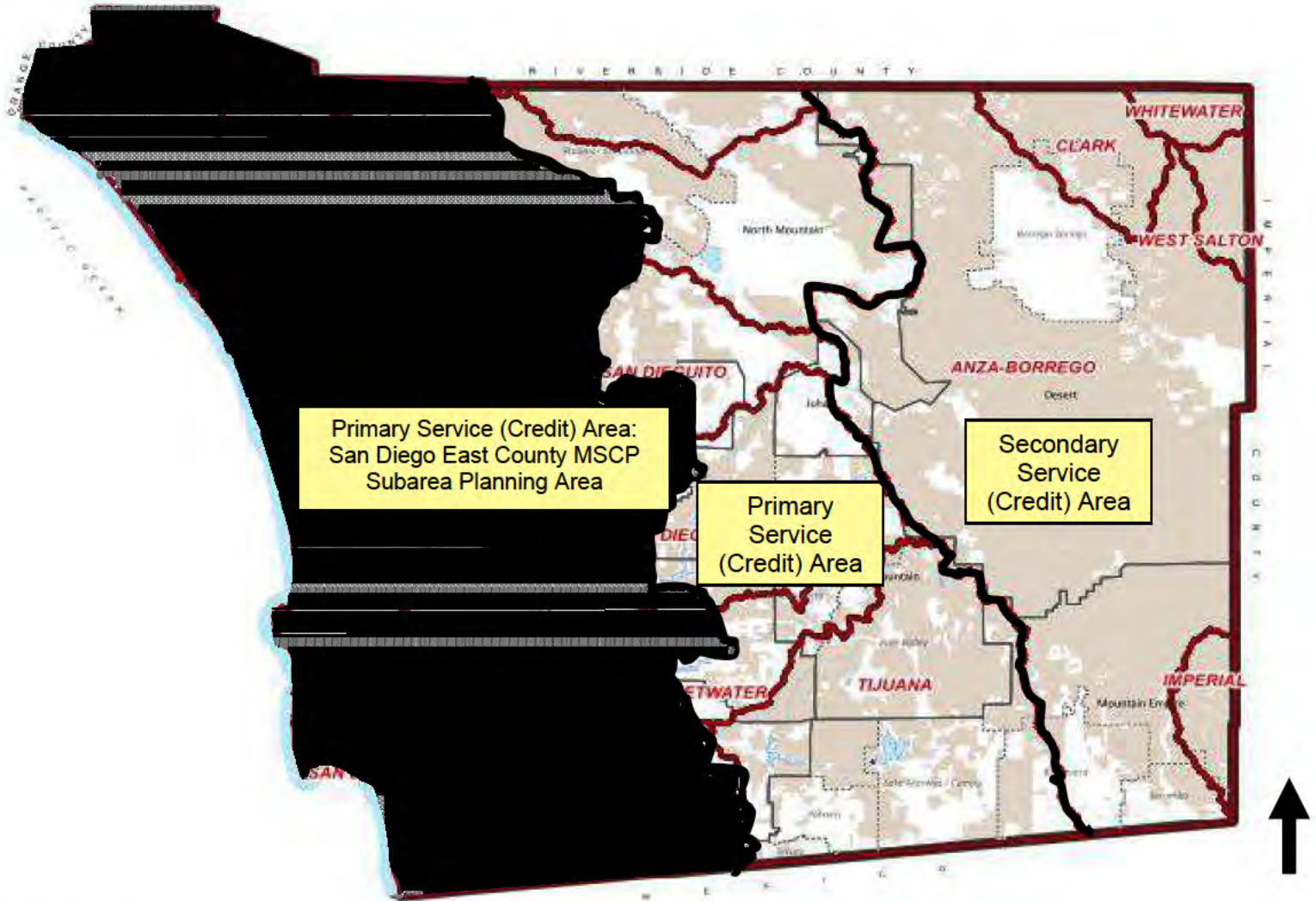


Figure 5. Soils – Miller Valley Ranch

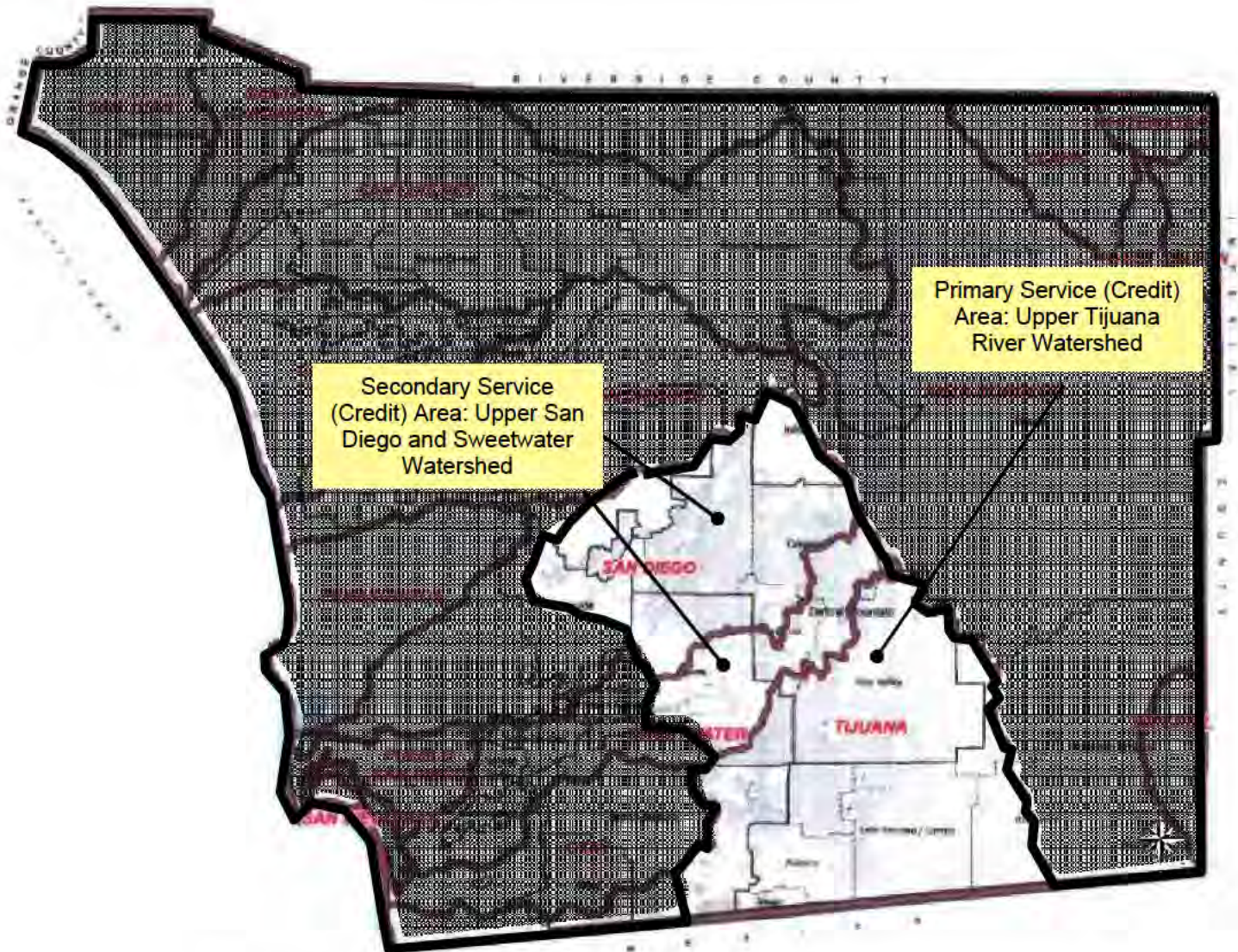


**Figure 6. Proposed Service Area – Upland Credits
Miller Valley Ranch Conservation Bank**



The Primary Service Area covers approximately 2,424 square miles from the Palomar Mountains to the U.S./Mexico Border. This corresponds with San Diego's County's Multiple Species Conservation Program (MSCP) East County Subarea Planning Area. The vegetation in the service area ranges from chaparral to coastal sage scrub, with conifer forests in the mountains, riparian zones, wetlands, and desert habitats.

**Figure 7. Proposed Service Area – Wetland Credits
Miller Valley Ranch Mitigation Bank**



The Wetland Service Areas extend from the northern limits of Ramona, then south through Alpine, Lakeside, Harbison Canyon, Jamul, and Dulzura to the United States/ Mexico Border. Wetland Credits are available for projects with impacted wetlands within the service area which are at or above the approximate 750-foot elevation level.

The Primary Wetland Service Area, which consists of a portion of the upper watershed of the Tijuana River, covers approximately 500 square miles from the Laguna Mountains to the U.S./Mexico Border, where the Tijuana River enters Baja California Norte. Major tributaries in the Primary Service Area include Cottonwood Creek and Pine Creek. The vegetation in the service area ranges from chaparral to coastal sage scrub, with conifer forests in the mountains, riparian zones, and wetlands. Only the upper Tijuana River watershed, within the United States, qualifies as the Primary Service Area.

The Secondary Wetland Service Area, consisting of the Upper San Diego and Sweetwater Watershed (in the U.S.) encompasses approximately 425 square miles in central San Diego County. The two watersheds mostly consist of unincorporated County lands. Habitats found within the watersheds include chaparral, coastal sage scrub, conifer forests in the mountains, riparian zones, and wetlands. Note that the CDFW service area is only the "Primary Service Area" as indicated on the map. Projects with wetland impacts outside of the Primary Service Area will be considered by CDFW only on a case-by-case basis to use the bank to meet Streambed Alteration Agreement mitigation requirements.

Table 1. Recent Field Surveys – Miller Valley Ranch

Date	Personnel	Hours	Survey Conditions
Feb 8, 2008	VS, JG	10:30-15:45	clear; mid 60°s; easterly wind (Santa Ana)
April 9, 2009	VS, AM	09:00-16:30	clear; mid 50°s; moderate westerly breeze.
April 26, 2009	VS, JG	10:00-16:30	clear; low to mid 60°s; light westerly breeze.
Mar 16, 2010	VS, JG	09:30-16:00	clear, mid 60°s to low 70°s, strong southeasterly wind
Mar 22, 2010	VS, JG	10:00-16:30	clear to overcast, high to mid-60°s; westerly breeze
Mar 30, 2010	VS, JG	10:45-17:00	clear, low to mid 60°s, light westerly breeze
April 9, 2010	VS, JG	10:00-15:45	clear, high 60°s to low 70°s, light westerly breeze
April 13, 2010	VS, JG	09:30-16:00	clear, low 50°s to low 60°s, light westerly breeze
April 23, 2010	VS, JG	10:30-16:00	clear, mid 50°s to low 60°s, southwesterly breeze
May 12, 2010	VS, JG	10:30-13:45	clear, mid 70°s, light westerly breeze
Jan 5, 2011	VS, JG	14:15-16:45	mostly clear, mid to low 50°s, strong easterly wind
April 14, 2011	VS, BM	20:00-22:00	clear skies, low 60°s, no wind
April 22, 2011	VS	09:00-11:30	clear skies, mid 60°s, no wind
April 26, 2011	VS, BM	21:45-24:00	clear skies, mid to high 50°s, no wind
April 29, 2011	VS	08:00-11:30	clear skies, mid 60°s, light easterly breeze
May 11, 2011	VS	08:00-10:30	clear skies, mid to high 60°s, no wind
May 16, 2011	VS, BM	21:45-22:30	clear skies, mid 50°s, no wind
May 20, 2011	VS, VM	08:40-10:20	clear skies, mid 60°s to low 70°s, light westerly breeze
May 26, 2011	VS, JS, OS	21:45-22:30	clear skies, low 50°s, no wind
May 30, 2011	VS	09:00-11:00	clear skies, low to mid 70°s, very light westerly breeze
June 10, 2011	VS, VM	08:40-10:45	clear skies, high 60°s to mid-70°s, light westerly wind
13 June 2011	VS, BM	21:45-23:00	clear skies, low 60°s, no wind
June 19, 2011	VS	08:30-10:30	clear skies, low to mid 70°s, no wind
June 20, 2011	VS, BM	21:00-22:15	clear skies, high 60°s, no wind
July 7, 2011	VS, VM	08:30-10:45	clear skies, low to mid 80°s, light easterly breeze

Table 2. Plant Communities – Miller Valley Ranch

Habitat	Holland Code	Total
Great Basin Scrub	35000	57.77 acres
Flat-top Buckwheat	37K00	5.12 acres
Granitic Chamise Chaparral	37210	336.06 acres
Red Shank Chaparral	37300	3.87 acres
Non-native Grassland	42200	2.17 acres
Montane Meadow	45100	43.55 acres
Riparian Woodland	62000	2.82 acres
Freshwater Marsh	52400	1.24 acres
Open Water	13100	0.40 acre
Coast Live Oak Woodland	71160	13.58 acres
Disturbed and Urban/Developed	11300,12000	0.26 acres
Total		466.84 acres

Table 3. Flora Detected – Miller Valley Ranch

<u>Scientific Name</u>	<u>Common Name</u>
<i>Achillea millefolium</i>	Yarrow
<i>Adenostoma fasciculatum</i>	Chamise
<i>Adenostoma sparsifolium</i>	Red Shank
<i>Agoseris retrorsa</i>	Spearleaf Agoseris
<i>Ambrosia psilostachya</i>	Western Ragweed
<i>Amsinckia menziesii</i>	Rigid Fiddleneck
<i>Anemopsis californica</i>	Yerba Mansa
<i>Antirrhinum nuttallianum</i>	Nuttall's Snapdragon
<i>Arctostaphylos glauca</i>	Bigberry Manzanita
<i>Arctostaphylos pungens</i>	Mexican Manzanita
<i>Artemisia douglasiana</i>	Douglas Sagewort
<i>Artemisia dracunculus</i>	Dragon Sagewort
<i>Artemisia tridentata</i>	Great Basin Sagebrush
<i>Asclepias fasciculatus</i>	Slender-leaved Milkweed
<i>Astragalus douglasii</i> var. <i>perstrictus</i>	Jacumba Milk-vetch
<i>Avena barbata</i> *	Slender Wild Oat
<i>Baccharis salicifolia</i>	Mule Fat
<i>Boechera sparsiflora</i>	California Rock-cress
<i>Brassica</i> sp. *	Mustard
<i>Bromus diandrus</i> *	Ripgut Brome
<i>Bromus rubens</i> *	Foxtail Brome
<i>Bromus tectorum</i> *	Cheat Brome
<i>Calycoseris parryi</i>	Yellow Tackstem
<i>Calyptridium monandrum</i>	Common Calyptridium
<i>Camissonia californica</i>	False Mustard
<i>Camissonia hirtella</i>	Field Sun Cup
<i>Camissonia ignota</i>	Evening Primrose
<i>Camissonia strigulosa</i>	Evening Primrose
<i>Carex fracta</i>	Fragile Sheathed Sedge
<i>Carex multicosata</i>	Many-ribbed Sedge
<i>Carex subfusca</i>	Pale Broomsedge
<i>Castilleja affinis</i>	Coast Paintbrush
<i>Caulanthus heterophyllus</i> var. <i>heterophyllus</i>	San Diego Jewelflower
<i>Caulanthus simulans</i>	Payson's Jewelflower

Table 3. Flora Detected – Miller Valley Ranch

<u>Scientific Name</u>	<u>Common Name</u>
<i>Ceanothus cuneatus</i>	Buck Brush
<i>Ceanothus leucodermis</i>	Buck-brush Lilac
<i>Cercocarpus betuloides</i>	Mountain Mahogany
<i>Chaenactis artemisiaefolia</i>	White Pincushion
<i>Chaenactis glabriuscula</i>	Yellow Pincushion
<i>Cheilanthes covellei</i>	Bead Fern
<i>Chorizanthe</i> sp.	Spine Flower
<i>Cirsium occidentale</i>	Western Thistle
<i>Collinsia heterophylla</i>	Chinese Houses
<i>Crassula erecta</i>	Stonecrop
<i>Cryptantha intermedia</i>	Common Cryptantha
<i>Cryptantha micrantha</i>	Redroot Cryptantha
<i>Cucurbita foetidissima</i>	Stinking Gourd
<i>Cuscuta californica</i>	California Dodder
<i>Datura meteloides</i> *	Jimsonweed
<i>Datura wrightii</i>	Sacred Datura
<i>Dendromecon rigida</i>	Bush Poppy
<i>Descurainia pinnata</i>	Tansy Mustard
<i>Dichelostemma pulchellum</i>	Blue Dicks
<i>Distichlis spicata</i>	Desert Salt Grass
<i>Dudleya arizonica</i>	Arizona Dudleya
<i>Elymus condensatus</i>	Giant Wild Rye
<i>Elymus glaucus</i>	Wild Rye
<i>Emmenanthe penduliflora</i>	Whispering Bells
<i>Ephedra californica</i>	Mormon Tea
<i>Ericameria pinifolia</i>	Pine Goldenbush
<i>Eriodictyon californicum</i>	Yerba Santa
<i>Eriogonum fasciculatum</i>	Flat-top Buckwheat
<i>Eriogonum gracile</i>	Slender Buckwheat
<i>Eriogonum parishii</i>	Parish's Buckwheat
<i>Eriogonum wrightii</i>	Foothill Buckwheat
<i>Eriophyllum confertiflorum</i>	Golden Yarrow
<i>Eriophyllum wallacei</i>	Wallace's Woolly Daisy
<i>Erodium</i> sp.	Stork's-bill

Table 3. Flora Detected – Miller Valley Ranch

<u>Scientific Name</u>	<u>Common Name</u>
<i>Erodium cicutarium</i> *	Red-stem Stork's-bill
<i>Eschscholzia californica</i>	California Poppy
<i>Filago californica</i>	California Filago
<i>Galium angustifolium</i>	Narrow-leaf Bedstraw
<i>Garrya veatchii</i>	Veatch's Silktassel
<i>Geraea viscida</i>	Sticky Geraea
<i>Gilia</i> sp.	Gilia
<i>Gilia capitata</i> ssp. <i>abrotanifolia</i>	Blue Field Gilia
<i>Gnaphalium bicolor</i>	Bicolor Cudweed
<i>Gutierrezia californica</i>	California Matchweed
<i>Heliotropium curvassavicum</i>	Wild Heliotrope
<i>Holcus lanatus</i>	Common Velvetgrass
<i>Hordeum marinum</i> ssp. <i>gussoneanum</i>	Mediterranean Barley
<i>Hordeum depressum</i>	Low Barley
<i>Hordeum murinum</i> *	Hare Barley
<i>Juncus</i> sp.	Wire Rush
<i>Juncus acutus</i>	Spiny Rush
<i>Juncus mexicanus</i>	Mexican Rush
<i>Lasthenia gracilis</i>	Common Goldfields
<i>Lathyrus laetiflorus</i>	Chaparral Pea
<i>Lathyrus vestitus</i> var. <i>alefeldii</i>	San Diego Sweet Pea
<i>Layia platyglossa</i>	Tidy Tips
<i>Lemna</i> sp.	Duckweed
<i>Lepidium</i> sp.	Peppergrass
<i>Lepidium campestre</i> *	Cow Cress
<i>Lepidium densiflorum</i>	Peppergrass
<i>Lepidium latifolium</i> *	Perennial Peppergrass
<i>Lessingia filaginifolia</i>	California Aster
<i>Lonicera subspicata</i>	Wild Honeysuckle
<i>Lotus argophyllus</i>	Silver Lotus
<i>Lotus corniculatus</i> *	Birdsfoot Lotus
<i>Lotus scoparius</i>	Deerweed
<i>Lotus strigosus</i> var. <i>strigosus</i>	Bishop's Lotus
<i>Lupinus</i> sp.	Lupine

Table 3. Flora Detected – Miller Valley Ranch

<u>Scientific Name</u>	<u>Common Name</u>
<i>Lupinus concinnus</i>	Bajada Lupine
<i>Lupinus hirsutissimus</i>	Stinging Lupine
<i>Lupinus truncatus</i>	Collar Lupine
<i>Marah macrocarpus</i>	Man Root
<i>Medicago lupulina</i> *	Black Medic
<i>Medicago polymorpha</i> *	Bur Clover
<i>Melica imperfecta</i>	Coast Range Melic
<i>Melilotus indicus</i> *	Indian Sweet Clover
<i>Mimulus</i> sp.	Monkeyflower
<i>Mimulus aurantiacus</i>	Desert Monkeyflower
<i>Mimulus brevipes</i>	Wide-throated Yellow Monkeyflower
<i>Mimulus cardinalis</i>	Scarlet Monkeyflower
<i>Mimulus guttatus</i>	Seep Monkeyflower
<i>Nemophila menziesii</i>	Blue Eyes
<i>Nicotiana attenuata</i>	Coyote Tobacco
<i>Oenothera</i> sp.	Evening Primrose
<i>Opuntia parryi</i>	Cane Cholla
<i>Opuntia phaeacantha</i>	Mojave Prickly Pear
<i>Paeonia californica</i>	California Peony
<i>Pectocarya linearis</i> ssp. <i>ferocula</i>	Slender Pectocarya
<i>Pectocarya penicillata</i>	Winged Pectocarya
<i>Pellaea mucronata</i>	Bird's-foot Fern
<i>Penstemon clevelandii</i> var. <i>clevelandii</i>	Cleveland's Penstemon
<i>Persicaria maculosa</i>	Lady's-thumb
<i>Phacelia</i> sp.	Phacelia
<i>Phacelia cicutaria hispida</i>	Caterpillar Phacelia
<i>Phacelia parryi</i>	Parry's Phacelia
<i>Phacelia ramosissima</i>	Phacelia
<i>Phoradendron villosum</i>	Hairy Mistletoe
<i>Pityrogramma triangularis</i> var. <i>viscosa</i>	Silverback Fern
<i>Plagiobothrys arizonicus</i>	Arizona Popcornflower
<i>Polypogon monspeliensis</i> *	Rabbitfoot Grass
<i>Populus fremontii</i>	Western Cottonwood
<i>Prunus ilicifolia</i>	Holly-leaf Cherry

Table 3. Flora Detected – Miller Valley Ranch

<u>Scientific Name</u>	<u>Common Name</u>
<i>Pterostegia drymarioides</i>	Thread Stem
<i>Quercus agrifolia</i>	Coast Live Oak
<i>Quercus berberidifolia</i>	Interior Scrub Oak
<i>Rhamnus ilicifolia</i>	Redberry
<i>Rhus ovata</i>	Sugarbush
<i>Rhus trilobata</i>	Squawbush
<i>Ribes indecorum</i>	Winter Currant
<i>Rorippa nasturtium-aquaticum</i> *	Watercress
<i>Rosa californica</i>	California Rose
<i>Salix laevigata</i>	Red Willow
<i>Salix lasiolepis</i>	Arroyo Willow
<i>Salvia columbariae</i>	Chia
<i>Salvia mellifera</i>	Black Sage
<i>Sambucus mexicanus</i>	Elderberry
<i>Saltugilia australis</i>	Southern Gilia
<i>Schismus barbatus</i> *	Schismus
<i>Scirpus</i> sp.	Bulrush
<i>Senecio</i> sp.	Ragwort
<i>Sidalcea malvaeflora</i>	Checkers
<i>Sidotheca trilobata</i>	Three Lobed Oxytheca
<i>Solanum parishii</i>	Parish's Nightshade
<i>Stylocline gnaphalioides</i>	Everlasting Nest-straw
<i>Taraxacum officinale</i> *	Common Dandelion
<i>Thysanocarpus curvipes</i>	Lacepod
<i>Trifolium</i> sp. *	Clover
<i>Typha latifolia</i>	Cattails
<i>Typha</i> sp.	Cattails
<i>Urtica dioica</i> *	Hoary Nettle
<i>Urtica holosericea</i> *	Stinging Nettle
<i>Urtica urens</i> *	Dwarf Nettle
<i>Verbascum thapsus</i> *	Common Mullein
<i>Verbena lasiostachys</i>	Vervain
<i>Viola pedunculata</i>	Johnny Jump-up
<i>Xanthium strumarium</i> *	Cocklebur

Table 3. Flora Detected – Miller Valley Ranch

Scientific Name

Common Name

Yucca whipplei

Our Lord's Candle

Zauschneria californica

California Fuschia

Total = 172 species of native and naturalized plants detected

* = non-native taxon

Bold = sensitive taxon

Table 4. Fauna Detected – Miller Valley Ranch

<u>Scientific Name</u>	<u>Common Name</u>
Birds	
<i>Accipiter cooperii</i>	Cooper's Hawk
<i>Accipiter striatus</i>	Sharp-shinned Hawk
<i>Agelaius phoeniceus</i>	Red-winged Blackbird
<i>Agelaius tricolor</i>	Tri-colored Blackbird
<i>Ammodramus sandwichensis</i>	Savannah Sparrow
<i>Amphispiza bilineata</i>	Black-throated Sparrow
<i>Anas platyrhynchos</i>	Mallard
<i>Aphelocoma coerulescens</i>	Scrub Jay
<i>Archilochus anna</i>	Anna's Hummingbird
<i>Bubo virginianus</i>	Great Horned Owl
<i>Buteo jamaicensis</i>	Red-tailed Hawk
<i>Buteo lineatus</i>	Red-shouldered Hawk
<i>Callipepla californica</i>	California Quail
<i>Callipepla picta eremophila</i>	Mountain Quail
<i>Carduelis psaltria</i>	Lesser Goldfinch
<i>Carpodacus mexicanus</i>	Housefinch
<i>Cathartes aura</i>	Turkey Vulture
<i>Chamaea fasciata</i>	Wrentit
<i>Chordeiles acutipennis</i>	Lesser Nighthawk
<i>Colaptes auratus</i>	Common Flicker
<i>Contopus sordidulus</i>	Western Wood Peewee
<i>Corvus brachyrhynchos</i>	Common Crow
<i>Corvus corax</i>	Common Raven
<i>Dendrocopos nuttallii</i>	Nuttall's Woodpecker
<i>Dendroica townsendii</i>	Townsend's Warbler
<i>Empidonax sp.</i>	Empidonax Flycatcher
<i>Euphagus cyanocephalus</i>	Brewer's Blackbird
<i>Fulica americana</i>	American Coot
<i>Geococcyx californicus</i>	Greater Roadrunner
<i>Geothlypis trichas</i>	Common Yellowthroat
<i>Icterus cucullatus</i>	Hooded Oriole
<i>Junco hyemalis</i>	Dark-eyed Junco
<i>Melanerpes formicivorus</i>	Acorn Woodpecker

Table 4. Fauna Detected – Miller Valley Ranch

Scientific Name

Common Name

<i>Melospiza melodia</i>	Song Sparrow
<i>Myiarchus cinerascens</i>	Ash-throated Flycatcher
<i>Parus inornatus</i>	Plain Titmouse
<i>Phainopepla nitens</i>	Phainopepla
<i>Pheucticus melanocephalus</i>	Black-headed Grosbeak
<i>Picoides nuttallii</i>	Nuttall's Woodpecker
<i>Pipilo crissalis</i>	California Towhee
<i>Pipilo maculatus</i>	Spotted Towhee
<i>Piranga rubra</i>	Summer Tanager
<i>Plegadis chihi</i>	White-faced Ibis
<i>Psaltiriparus minimus</i>	Bushtit
<i>Salpinctes obsoletus</i>	Rock Wren
<i>Sayornis nigricans</i>	Black Phoebe
<i>Sialia mexicana</i>	Western Bluebird
<i>Sitta carolinensis</i>	White-breasted Nuthatch
<i>Spizella atrogularis</i>	Black-chinned Sparrow
<i>Stelgidopteryx serripennis</i>	Northern Rough-winged Swallow
<i>Sturnus vulgaris</i>	Starling
<i>Thryomanes bewickii</i>	Bewick's Wren
<i>Toxostoma redivivum</i>	California Thrasher
<i>Troglodytes aedon</i>	House Wren
<i>Tyrannus verticalis</i>	Western Kingbird
<i>Tyrannus vociferans</i>	Cassin's Kingbird
<i>Wilsonia pusilla</i>	Wilson's Warbler
<i>Zenaida macroura</i>	Mourning Dove
<i>Zonotrichia leucophrys</i>	White-crowned Sparrow

Mammals

<i>Canis latrans</i>	Coyote
<i>Lepus californicus bennettii</i>	San Diego Black-tailed Jackrabbit
<i>Lynx rufus</i>	Bobcat
<i>Microtus californicus</i>	California Vole
<i>Neotoma lepida intermedia</i>	San Diego Desert Woodrat
<i>Odocoileus hemionus</i>	Mule Deer

Table 4. Fauna Detected – Miller Valley Ranch

<u>Scientific Name</u>	<u>Common Name</u>
<i>Peromyscus maniculatus</i>	Deer Mouse
<i>Spermophilus beecheyi</i>	California Ground Squirrel
<i>Sylvilagus audubonii</i>	Desert Cottontail Rabbit
<i>Tamias</i> sp.	Chipmunk
<i>Thomomys bottae</i>	Valley Pocket Gopher
<i>Urocyon cinereoargenteus</i>	Gray Fox
<u>Reptiles</u>	
<i>Arizona elegans</i>	Glossy Snake
<i>Cnemidophorus tigris multiscutatus</i>	Coastal Western Whiptail
<i>Crotalus oregonus helleri</i>	Southern Pacific Rattlesnake
<i>Crotalus viridis</i>	Western Rattlesnake
<i>Eumeces skiltonianus interparietalis</i>	Coronado Skink
<i>Gerrhonotus multicarinatus</i>	Southern Alligator Lizard
<i>Lampropeltis getulus</i>	California Kingsnake
<i>Masticophis flagellum</i>	Red Racer
<i>Masticophis lateralis</i>	Striped Racer
<i>Phrynosoma coronatum blainvillei</i>	San Diego Horned Lizard
<i>Pituophis melanoleucus</i>	Common Gopher Snake
<i>Sceloporus occidentalis</i>	Western Fence Lizard
<i>Sceloporus orcuttii</i>	Granite Spiny Lizard
<i>Thamnophis hammondi</i>	Two-striped Gartersnake
<i>Uta stansburiana</i>	Side-blotched Lizard
<u>Amphibians</u>	
<i>Bufo boreas</i>	Western Toad
<i>Pseudacris hypochondriaca</i>	Baja California Treefrog
<i>Rana catesbeiana</i>	Bullfrog
<u>Butterflies</u>	
<i>Adelpha bredowii californica</i>	California Sister
<i>Anthocharis cethura</i>	Felder's Orangetip
<i>Anthocharis sara</i>	Sara Orangetip
<i>Apodemia mormo virgulti</i>	Behr's Metalmark

Table 4. Fauna Detected – Miller Valley Ranch

<u>Scientific Name</u>	<u>Common Name</u>
<i>Brephidium exile</i>	Pygmy Blue
<i>Callophrys perplexa</i>	Perplexing Hairstreak
<i>Charidryas gabbii</i>	Gabb's Checkerspot
<i>Colias eurytheme</i>	Orange Sulphur
<i>Colias harfordii</i>	Harford's Sulphur
<i>Epargyreus clarus californicus</i>	Silver-spotted Skipper
<i>Erynnis</i> sp.	Duskywing
<i>Erynnis brizo</i>	Sleepy Duskywing
<i>Erynnis funeralis</i>	Funereal Duskywing
<i>Erynnis properties</i>	Propertius Duskywing
<i>Euchloe hyantis lotta</i>	California Marble
<i>Everes amyntula</i>	Western Tailed Blue
<i>Glaucopsyche lygdamus</i>	Southern Blue
<i>Heliopetes ericetorum</i>	Giant Checkered Skipper
<i>Icaricia acmon</i>	Acmon Blue
<i>Incisalia augusta</i>	Brown Elfin
<i>Leptotes marina</i>	Marine Blue
<i>Junonia coenia</i>	Buckeye
<i>Papilio eurymedon</i>	Pale Swallowtail
<i>Philotes sonorensis</i>	Sonoran Blue
<i>Pontia protodice</i>	Common White
<i>Pontia sisymbrii</i>	Veined White
<i>Strymon melinus</i>	Common Hairstreak
<i>Vanessa annabella</i>	West Coast Lady
<i>Vanessa cardui</i>	Painted Lady

Total = 118 species detected

59 birds, 12 mammals, 15 reptiles, 3 amphibians, 29 butterflies

* = non-native taxon

Bold = sensitive taxon

Table 5. Sensitive Species Known from the Vicinity – Miller Valley Ranch

Scientific Name	Common Name	Federally Endangered	Federally Threatened	State Endangered	State Threatened	State Rare	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	
<i>Accipiter cooperi</i>	Cooper's hawk						X	X	X	X	X	X	X	X							X		O	
<i>Accipiter striatus</i>	Sharp-shinned hawk						X	X		X	X	X	X	X										O
<i>Agelaius tricolor</i>	Tricolored blackbird								X	X						X								O
<i>Amphispiza belli belli</i>	Bell's sage sparrow						X	X				X												H
<i>Antrozous pallidus</i>	Pallid bat						X	X	X	X	X	X	X	X	X		X	X			X			M
<i>Aquila chrysaetos</i>	Golden eagle						X	X	X		X	X	X	X	X									M
<i>Astragalus douglasii perstrictus</i>	Jacumba Milkvetch							X				X			X									O
<i>Bassariscus astutus</i>	Ringtail							X				X												M
<i>Bufo californicus</i>	Arroyo toad	X					X	X	X	X	X										X			H
<i>Buteo lineatus</i>	Red-shouldered hawk									X	X													O
<i>Callipepla picta eremophila</i>	Mountain quail							X				X												O
<i>Cathartes aura</i>	Turkey vulture						X	X	X	X	X	X	X	X										O
<i>Caulanthus simulans</i>	Payson's jewelflower							X				X			X									O
<i>Ceanothus cyaneus</i>	Lakeside ceanothus							X																L
<i>Chaetodipus californicus femoralis</i>	Dulzura California pocket mouse						X	X	X		X	X												H
<i>Chamaebatia australis</i>	Southern mountain misery							X				X												L
<i>Charina trivirgata roseofusca</i>	Coastal rosy boa						X	X			X	X												H
<i>Chorizanthe leptotheca</i>	Peninsular spine flower							X				X												L
<i>Circus cyaneus hudsonius</i>	Northern harrier						X		X							X			X					M
<i>Clemmys marmorata pallida</i>	Southwestern pond turtle									X						X							X	M
<i>Cnemidophorus tigris multiscutatus</i>	Coastal western whiptail							X		X	X	X												O
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat							X	X	X	X	X	X	X	X	X	X	X		X				M
<i>Crotalus ruber ruber</i>	Northern red diamond rattlesnake						X	X				X			X	X								H
<i>Diadophis punctatus similis</i>	San Diego ringneck snake						X	X		X	X	X	X											H
<i>Eumops perotis californicus</i>	Greater western mastiff bat						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	M
<i>Euphydryas editha quino</i>	Quino checkerspot butterfly	X					X	X	X			X					X		X					L
<i>Falco mexicanus</i>	Prairie falcon								X								X	X						M
<i>Felis concolor</i>	Mountain lion						X	X		X	X	X	X	X	X	X	X	X		X				M
<i>Geraea viscida</i>	Sticky geraea							X																O
<i>Horkelia truncata</i>	Ramona horkelia							X				X												L
<i>Hulsea californica</i>	California hulsea							X																M
<i>Lepechinia cardiophylla</i>	Heart leaved pitcher sage							X																L
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit						X	X	X		X	X	X											O
<i>Lycaena hermes</i>	Hermes copper						X	X				X												L
<i>Monardella hypoleuca lanata</i>	Felt leaved rock mint							X				X												L
<i>Myotis ciliolabrum</i>	Small-footed myotis							X		X	X	X	X	X	X		X				X			M
<i>Myotis evotis</i>	Long eared myotis							X		X	X	X	X	X	X						X			M
<i>Myotis thysanodes</i>	Fringed myotis							X		X	X	X	X	X	X						X			M
<i>Myotis volans</i>	Long legged myotis							X		X	X	X	X	X	X						X			M
<i>Myotis yumanensis</i>	Yuma myotis						X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	M
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat						X	X		X	X													O
<i>Nolina cismontana</i>	Chaparral beargrass							X				X												L
<i>Nyctinomops macrotis</i>	Big free-tailed bat						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	M

Table 5. Sensitive Species Known from the Vicinity – Miller Valley Ranch

Scientific Name	Common Name	Federally Endangered	Federally Threatened	State Endangered	State Threatened	State Rare	Coastal Sage Scrub	Mixed Chaparral	Grassland	Riparian	Oak Woodland	Chamise Chaparral	Mixed Conifer	Closed Cone Forest	Pinon-Juniper	Freshwater Marsh	Desert Scrub	Desert Wash	Salt or Alkali Marsh	Vernal Pools	Montane Meadow	Coastal or Desert Dune	Lakes and Bays	Probability of Occurrence
<i>Nyctinomops femorosaccus</i>	Pocketed free-tailed bat						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	M
<i>Odocoileus hemionus</i>	Southern mule deer						X	X	X	X	X	X	X	X	X		X	X				X		O
<i>Onychomys torridus ramona</i>	Southern grasshopper mouse						X	X	X			X												H
<i>Perognathus longimembris brevinasus</i>	Los Angeles little pocket mouse						X	X	X		X	X										X		L
<i>Phrynosoma coronatum blainvillei</i>	San Diego horned lizard						X	X	X	X		X	X											O
<i>Piperia cooperi</i>	Cooper's rein orchid						X		X															L
<i>Piperia leptopetala</i>	Narrow-petaled rein orchid						X		X															L
<i>Polygala cornuta fishiae</i>	Fish's milkwort							X				X												L
<i>Salvadora hexalepis virgulata</i>	Coast patch-nosed snake						X	X				X			X									H
<i>Satureja chandleri</i>	San Miguel savory							X				X												L
<i>Scaphiopus hammondi</i>	Western spadefoot toad						X	X	X	X	X	X				X					X			M
<i>Scutellaria bolanderi austromontana</i>	Southern skullcap									X			X											M
<i>Senecio ganderi</i>	Gander's butterweed					X		X				X												L
<i>Sialia mexicana</i>	Western bluebird									X	X		X											O
<i>Streptanthus campestris</i>	Southern jewelflower							X							X									M
<i>Taxidea taxus</i>	American badger						X	X	X		X	X	X	X			X	X				X		M
<i>Tetracoccus dioicus</i>	Parry's tetracoccus							X				X												L

Probability of Occurrence Codes:

- L – Low Probability; rare species in area, and no significant habitat (animals); or distinctive perennial that would not have been missed if present onsite (plants);
- M – Moderate Probability; could be expected to occur onsite on at least an occasional basis, based on habitat quality (animals); or could occur onsite, but very rare, and/or poorly known (plants);
- H – High Probability; nearly certain to occur onsite on a regular basis (animals), but cryptic; or ephemeral species known from the immediate vicinity, but seasonal in occurrence (plants);
- O – Observed; see text for detailed discussion.

Table 6. Available Conservation/Mitigation Credits¹ – Miller Valley Ranch

<u>Resource Type</u>	<u>Total Acreage Onsite</u>	<u>Available Acre-credits</u>
<u>Upland Habitat and Species Preservation (CEQA) Credits²</u>		
Great Basin Scrub (GBS)	57.77 total acres	47.22 credits
GBS supporting Sticky Geranium	2.26 acres	(2.3 credits)
GBS supporting Jacumba Milk-vetch	1.57 acres	(1.6 credits)
Flat-top Buckwheat (FTB)	5.12 total acres	5.12 credits
FTB supporting Sticky Geranium	0.47 acre	(0.5 credits)
Granitic Chamise Chaparral (GCC)	336.06 total acres	336.06 credits
GCC supporting Payson's Jewelflower	10.50 acres	(10.5 credits)
GCC supporting Sticky Geranium	13.13 acres	(13.1 credits)
GCC supporting Jacumba Milk-vetch	0.71 acres	(0.7 credits)
Red Shank Chaparral (RSC)	3.87 acres	3.87 credits
Non-native Grassland (NNG)	2.17 acres	2.17 credits
Montane Meadow (MM)	43.55 acres	31.47 credits
Coast Live Oak Woodland (CLOW)	13.58 acres	13.58 credits
CLOW supporting Jacumba Milk-vetch	1.29 acres	(1.3 credits)
Disturbed and Urban/Developed (UD)	0.26 acres	none

Waters of the State only Wetland Credits Preservation (CEQA) Credits

Riparian Woodland (RW)	2.82 acres	2.02 credits
Freshwater Marsh (FWM)	1.24 acres	1.24 credits
Open Water (OW)	0.40 acre	0.40 credits

Wetland Waters of the U.S. and Waters of the State Rehabilitation Credits

Montane Meadow (MM) + Riparian Woodland (RW) + Great Basin Scrub (GBS) ³	15.03 acres	15.03 credits
<u>Upland Buffer Credits</u> (waters of the U.S. credits only)		
Great Basin Scrub (GBS) Buffer	10.55 acres	8.40 credits

¹ - Upland Credits and Wetland Credits are sold at 1/10th -acre and 1/100th-acre increments, respectively.

² - Species-based Preservation Credits are sold as a component of the underlying habitat-type.

³ - Represents underlying habitat of 12.08 acres of MM and 0.8 acre of RW that will be rehabilitated including a small portion of (2.15 acres) GBS in order to establish Wetland Waters of the U.S. and Waters of the State Rehabilitation Credits.

⁴ - GBS Buffer Credits within the Wetland Rehabilitation Area may be sold as either upland habitat credits or wetland buffer credits, but not as both.

ATTACHMENT A

CNDDDB Forms

(As submitted to the CDFW)

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95814
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mmiddlyyyy): 04/09/2009

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Astragalus douglasii var. perstrictus

Common Name: Jacumba Milk-vetch

Species Found? Yes No If not, why? _____
Total No. Individuals 47 Subsequent Visit? yes no
Is this an existing NDDDB occurrence? no unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Vince Scheidt
Address: 3158 Occidental St.
San Diego, CA 92122
E-mail Address: vince@san.rr.com
Phone: (858) 457-3873

Plant Information

Phenology: 90% vegetative 10% flowering _____% fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
breeding wintering burrow site rookery nesting other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr.: Private
Quad Name: _____ Elevation: _____
T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): _____
T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model _____
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
Coordinates: _____

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Along roads and in openings in chaparral on sandy substrate

Other rare taxa seen at THIS site on THIS date: Geraea viscida, Phrynosoma coronatum blainvillei
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Some grazing, limited rural development

Visible disturbances: Vehicular activity on road shoulders

Threats:

Comments:

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: _____

Photographs: (check one or more) Slide Print Digital

Plant / animal
Habitat
Diagnostic feature

May we obtain duplicates at our expense? yes no

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95814

Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 04/09/2009

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Geraea viscida*

Common Name: Sticky Geraea

Species Found? Yes No _____ If not, why? _____

Total No. Individuals 130 Subsequent Visit? yes no

Is this an existing NDDDB occurrence? _____ Yes, Occ. # no unk.

Collection? If yes: _____
Number Museum / Herbarium

Reporter: Vince Scheidt

Address: 3158 Occidental St.
San Diego, CA 92122

E-mail Address: vince@san.rr.com

Phone: (858) 457-3873

Plant Information

Phenology: 100 % _____ % _____ %
vegetative flowering fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
 breeding wintering burrow site rookery nesting other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr.: Private

Quad Name: _____ Elevation: _____

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): _____

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model _____

DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: _____

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Along roads and in openings in chaparral on sandy substrate

Other rare taxa seen at THIS site on THIS date: Astragalus douglasii var. perstrictus, Phrynosoma coronatum blainvilliei
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Some grazing, limited rural development

Visible disturbances: Vehicular activity on road shoulders

Threats:

Comments:

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: _____

Photographs: (check one or more) Slide Print Digital
Plant / animal
Habitat
Diagnostic feature

May we obtain duplicates at our expense? yes no

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 03/16/2010

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Caulanthus simulans*

Common Name: Payson's Jewelflower

Species Found? Yes No _____
If not, why? _____
Total No. Individuals 300 Subsequent Visit? yes no
Is this an existing NDDDB occurrence? _____ no unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Vince Scheidt
Address: 3158 Occidental St.
San Diego, CA 92122
E-mail Address: vince@san_rr.com
Phone: (858) 457-3873

Plant Information

Phenology: 10 % 90 % _____ %
vegetative flowering fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
 breeding wintering burrow site rookery nesting other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr.: Private
Quad Name: _____ Elevation: _____
T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): _____
T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model _____
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
Coordinates: _____

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Thousands of specimens are present onsite in more open areas of chaparral.

Other rare taxa seen at THIS site on THIS date: Accipiter cooperii
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Some grazing, limited rural development

Visible disturbances: Cattle grazing

Threats:

Comments:

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: _____

Photographs: (check one or more)

Plant / animal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? yes no

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mmdd/yyyy): 03/16/2010

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Accipiter cooperii

Common Name: Cooper's Hawk

Species Found? Yes No _____
If not, why?

Total No. Individuals 1 Subsequent Visit? yes no

Is this an existing NDDB occurrence? _____ no unk.
Yes, Occ. # _____

Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Vince Scheidt

Address: 3158 Occidental St.
San Diego, CA 92122

E-mail Address: vince@san.r.com

Phone: (858) 457-3873

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

1
adults # juveniles # larvae # egg masses # unknown
 breeding wintering burrow site rookery nesting other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr.: Private

Quad Name: _____ Elevation: _____

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): _____

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model _____

DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: _____

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Specimen observed flying over the onsite chaparral.

Other rare taxa seen at THIS site on THIS date: Caulanthus simulans
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Some grazing, limited rural development

Visible disturbances:

Threats:

Comments:

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: _____

Photographs: (check one or more)

Slide	Print	Digital
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plant / animal	<input type="checkbox"/>	<input type="checkbox"/>
Habitat	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? yes no

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mmdd/yyyy): 03/30/2010

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Accipiter striatus*

Common Name: Sharp-shinned Hawk

Species Found? Yes No _____ If not, why?

Total No. Individuals 1 Subsequent Visit? yes no

Is this an existing NDDDB occurrence? _____ no unk.
Yes, Occ. # _____

Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Vince Scheidt

Address: 3158 Occidental St.
San Diego, CA 92122

E-mail Address: vince@san.rr.com

Phone: (858) 457-3873

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

1
adults # juveniles # larvae # egg masses # unknown
 breeding wintering burrow site rookery nesting other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr.: Private

Quad Name: _____ Elevation: _____

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): _____

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model _____

DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: _____

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Specimen observed flying over the onsite chaparral.

Other rare taxa seen at THIS site on THIS date: Caulanthus simulans
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Some grazing, limited rural development

Visible disturbances: _____

Threats: _____

Comments: _____

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: _____

Photographs: (check one or more)

Slide Print Digital
Plant / animal
Habitat
Diagnostic feature

May we obtain duplicates at our expense? yes no

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 04/09/2010

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Lepus californicus bennettii*

Common Name: San Diego Black-tailed Jack Rabbit

Species Found? Yes No If not, why? _____

Total No. Individuals 1 Subsequent Visit? yes no

Is this an existing NDDDB occurrence? _____ no unk.
Yes, Occ. # _____

Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Vince Scheidt

Address: 3158 Occidental St.
San Diego, CA 92122

E-mail Address: vince@san.rr.com

Phone: (858) 457-3873

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

I
adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown _____
 breeding wintering burrow site rookery nesting other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr.: Private

Quad Name: _____ Elevation: _____

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): _____

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model _____

DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: _____

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Specimen observed within the onsite chaparral.

Other rare taxa seen at THIS site on THIS date: Caulanthus simulans, Cnemidophorus tigris multiscutatus
(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Some grazing, limited rural development

Visible disturbances: _____

Threats: _____

Comments: _____

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: _____

Photographs: (check one or more) Slide Print Digital
Plant / animal
Habitat
Diagnostic feature

May we obtain duplicates at our expense? yes no

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95814

Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 04/09/2010

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Cnemidophorus tigris multiscutatus*

Common Name: Coastal Western Whiptail

Species Found? Yes No _____
If not, why?

Total No. Individuals 3 Subsequent Visit? yes no

Is this an existing NDDDB occurrence? _____ no unk.
Yes, Occ. # _____

Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Vince Scheidt

Address: 3158 Occidental St.
San Diego, CA 92122

E-mail Address: vince@san.rr.com

Phone: (858) 457-3873

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

3
adults # juveniles # larvae # egg masses # unknown
 breeding wintering burrow site rookery nesting other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr.: Private

Quad Name: _____ Elevation: _____

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S D Source of Coordinates (GPS, topo. map & type): _____

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S D GPS Make & Model _____

DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: _____

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Specimens observed in open areas of the onsite chaparral and flat-top buckwheat scrub.

Other rare taxa seen at THIS site on THIS date: Caulanthus simulans, Lepus californicus bennettii

(separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Some grazing, limited rural development

Visible disturbances: _____

Threats: _____

Comments: _____

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: _____

Photographs: (check one or more) Slide Print Digital

- Plant / animal
- Habitat
- Diagnostic feature

May we obtain duplicates at our expense? yes no

For Office Use Only

Source Code _____ Quad Code _____
 Elm Code _____ Occ. No. _____
 EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 04/26/2009

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Phrynosoma coronatum blainvillei*

Common Name: San Diego Horned Lizard

Species Found? Yes No If not, why?

Total No. Individuals _____ Subsequent Visit? yes no

Is this an existing NDDB occurrence? _____ no unk.
Yes, Occ. #

Collection? If yes: _____
Number Museum / Herbarium

Reporter: Vince Scheidt

Address: 3158 Occidental St.
San Diego, CA 92122

E-mail Address: vince@san.rr.com

Phone: (858) 457-3873

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

1

# adults	# juveniles	# larvae	# egg masses	# unknown
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
breeding	wintering	burrow site	rookery	nesting

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr.: Private

Quad Name: _____ Elevation: _____

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): _____

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model _____

DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: _____

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):
Chaparral with sandy openings

Other rare taxa seen at THIS site on THIS date: Astragalus douglasii var. perstrictus, Geraea viscida
 (separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Some grazing, limited rural development

Visible disturbances: _____

Threats: _____

Comments: _____

Determination: (check one or more, and fill in blanks)

Keyed (cite reference): _____

Compared with specimen housed at: _____

Compared with photo / drawing in: _____

By another person (name): _____

Other: _____

Photographs: (check one or more)

Slide	Print	Digital
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plant / animal	<input type="checkbox"/>	<input type="checkbox"/>
Habitat	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? yes no

ATTACHMENT B

Quino Checkerspot Butterfly 45-day Report

Arroyo Toad 45-day Report

Least Bell's Vireo 45-day Report

Southwestern Willow Flycatcher 45-day Report

(all as submitted to the USFWS)

Quino Checkerspot Butterfly Survey Report

**45-Day Survey Results for the Quino Checkerspot Butterfly (*Ephydryas editha quino*) –
Miller Valley Ranch, Mountain Empire, San Diego County, California**

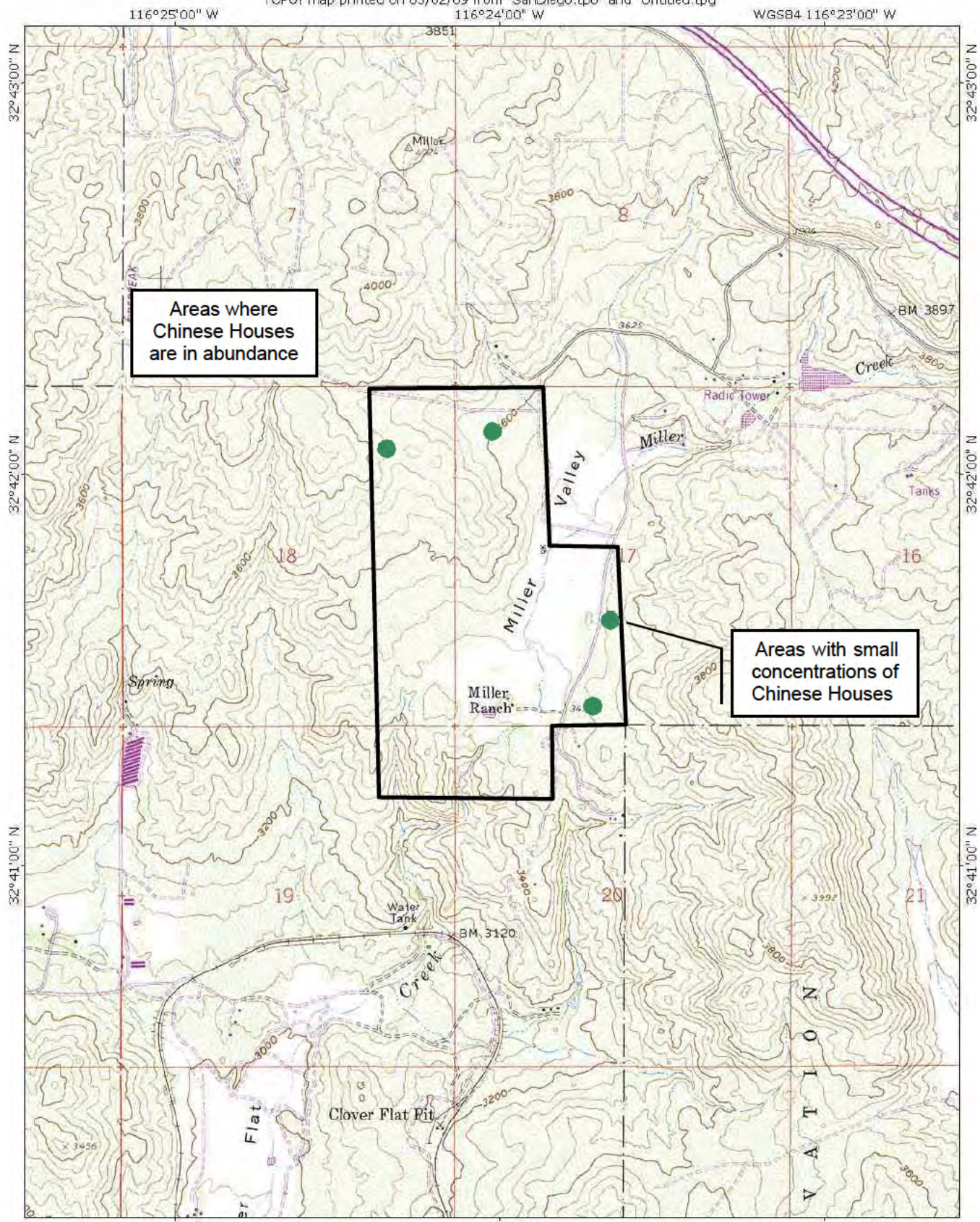
Location:	The subject Property consists of approximately 480 acres located west of Miller Road and south of Old Highway Valley 80 in the Mountain Empire area of unincorporated San Diego County.						
Habitat Description:	The majority of the Property supports Granitic Chamise Chaparral. This habitat-type is dominated by Chamise (<i>Adenostoma fasciculatum</i>) and Interior Scrub Oak (<i>Quercus berberidifolia</i>), with inclusions of Red Shank (<i>Adenostoma sparsifolium</i>). Cane Cholla (<i>Opuntia parryi</i>), Flat-top Buckwheat (<i>Eriogonum fasciculatum</i>), and Our Lord's Candle (<i>Yucca whipplei</i>) are occasional in the chaparral. Also present onsite are areas of Great Basin Scrub, which are dominated by Great Basin Sagebrush (<i>Artemisia tridentata</i>) with lesser numbers of Cane Cholla, Flat-top Buckwheat, Veatch's Silk Tassel (<i>Garrya veatchii</i>), Pine Goldenbush (<i>Ericameria pinifolia</i>), and Mormon Tea (<i>Ephedra californica</i>). The site also supports a strip of Flat-top Buckwheat, which is indicated by Flat-top Buckwheat, Cane Cholla, and Mormon Tea. Open areas of these three habitats were considered to have the highest probability of supporting Quino. Additional habitats found onsite include Montane Meadow, Coast Live Oak Woodland, Freshwater Marsh, Red Shank Chaparral, Riparian Woodland, Disturbed Habitat, Urban/Developed Habitat, Non-native Grassland, and Open Water. Quino habitat value onsite is moderate to high.						
Survey Methodologies	During the survey, transects were slowly walked in all appropriate habitats. All areas of the site were walked, except for steep slopes and areas with dense cover.						
Name of personnel	Vince Scheidt (VS) & Julia Groebner (JG), under PRT 788133	VS & JG	VS & JG	VS & JG	VS & JG	VS & JG	VS & JG
Acres surveyed	approx. 150 acres	approx. 150 acres	approx. 150 acres	approx. 150 acres	approx. 150 acres	approx. 150 acres	approx. 150 acres
Date of survey	3/16/2010	3/22/2010	3/30/2010	4/9/2010	4/13/2010	4/23/2010	5/12/2010
Weather	Clear skies; SE wind up to 30 mph	Clear to overcast skies; W wind 10-20 mph	Clear skies; W wind 3-5 mph	Clear skies; W wind 3-5 mph	Clear skies; W wind 3-5 mph	Clear skies; SW wind 5-10 mph	Clear skies; W breeze 3-8 mph
Temperature (Start/Stop)	65/71	69/65	62/66	68/72	52/63	56/63	74/75
Quino Observed	none	none	none	none	none	none	none



 Vince Scheidt

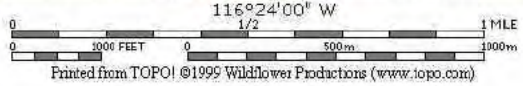
Quino Larval Host Plant Locations – Miller Valley Ranch Conservation/Mitigation Bank

TOPOI map printed on 03/02/09 from "SanDiego.tpo" and "Untitled.tpg"



Areas where Chinese Houses are in abundance

Areas with small concentrations of Chinese Houses



Printed from TOPOI ©1999 Wildflower Productions (www.topoi.com)

Arroyo Toad Survey Report

**REPORT OF A PROTOCOL FIELD SURVEY FOR
ARROYO TOAD (*BUFO CALIFORNICUS*)**

**THE MILLER VALLEY RANCH
CONSERVATION/MITIGATION BANK
SAN DIEGO COUNTY, CALIFORNIA**

Prepared for



Prepared by

Vincent N. Scheidt
Biological Consultant
3158 Occidental Street
San Diego, CA 92122
(858) 457-3873

June 2011

A handwritten signature in black ink, appearing to read 'Vincent N. Scheidt', written over a horizontal line.

Vincent N. Scheidt
Certified Biological Consultant
TE #788133

INTRODUCTION

This report presents the findings of a series of directed biological field surveys of a portion of the approximately 477.0-acre Miller Valley Ranch property (the "Property") (APNs 609-130-01-07, 609-120-14-07, 609-020-01-06, 609-020-05-10, 609-010-01-10, and portion of 609-010-02-06). The Property consists of mostly undeveloped land located off Miller Valley Road in the Mountain Empire area of unincorporated San Diego County, California (Figure 1). Arroyo Toad (*Bufo californicus*), a federally-listed Endangered Species, is known from the vicinity of the Property and could breed onsite.

The Miller Valley Ranch property is being proposed for perpetual protection as a Conservation/Mitigation Bank. The Property would offer conservation credits and mitigation credits and serve as an "offsite" mitigation area to compensate for development-related impacts to native habitat on other properties within an established "service area". The Property could offer wetlands rehabilitation mitigation credits. Rehabilitation activities could result in alterations to the onsite habitat with the potential to support Arroyo Toad.

Therefore, the U.S. Fish and Wildlife Service (USFWS) and the U.S. Army Corps of Engineers (USACE) have determined that a protocol field survey for this endangered species must be completed for the site. The results of this survey have been submitted to the USFWS, USACE, and California Department of Fish and Wildlife (CDFW).

ARROYO TOAD BIOLOGY AND LIFE HISTORY

Arroyo Toad was listed as Endangered under the Federal Endangered Species Act on December 16, 1994. As of its listing, Arroyo Toad was known from 22 river basins in the coastal and desert areas of nine counties along the central and southern coast of California. Habitat loss and modification of many central and southern California streams and rivers, as well as predation from introduced aquatic species, has caused the Arroyo Toad to disappear from about 75 percent of its previously occupied habitat in California. Arroyo Toads now survive primarily in river headwaters as small, isolated populations, primarily on private lands within or adjacent to the Cleveland National Forest. Currently, most Arroyo Toad populations in the northern and central parts of the range are restricted to elevations of 1,000 to 4,600 feet, perhaps due to widespread habitat loss at lower elevations.

Arroyo Toads are found in the vicinity of rivers and streams that have shallow pools adjacent to sand/gravel terraces. Breeding occurs in large streams with persistent water from late March until mid-June. Eggs are deposited and larvae develop in shallow pools with minimal current and little or no

emergent vegetation and sand or gravel substrate overlain with silt. After metamorphosis (June or July), the juvenile toads remain on the bordering gravel bars until the pool no longer persists (3 to 8 weeks, depending on site and year). Juveniles and adults forage for insects on sandy stream terraces, which may be sparsely to heavily vegetated with brush and trees, such as Mule Fat (*Baccharis salicifolia*), California Sycamore (*Platanus racemosa*), cottonwoods (*Populus* spp.), Coast Live Oak (*Quercus agrifolia*), and willows (*Salix* spp). The understory of stream terraces may consist of scattered short grasses, herbs, and leaf litter with patches of bare or disturbed soil or have no vegetation at all. Adult toads excavate shallow burrows on the terraces where they shelter during the day when the surface is damp, or during longer intervals in the dry season. Juveniles and adult toads may range up to 1.2 miles from the watercourse into the surrounding uplands. Upland habitats frequently utilized include sage scrub, chaparral, native and non-native grasslands, and oak woodlands. The distance toads are found from their breeding sites depends on topography and the extent of suitable habitat, with greater dispersal distances associated with flatter sites and limited barriers to movement.

METHODS

Fieldwork associated with this study consisted of a series of six focused field surveys, pursuant to the most current USFWS protocol recommendations (May 19, 1999) for Arroyo Toad surveying. Field dates and survey conditions are presented below, in “45-Day Survey Results for Arroyo Toad (*Bufo californicus*) – Miller Valley Ranch Conservation/Mitigation Bank”.

Field surveys were completed by the author, Vincent Scheidt, in possession of Federal 10 (a) (1) (a) Recovery Permit TE #788133. Brandon Myers, Joseph Scheidt, and Olivia Scheidt, Field Assistants, helped with the fieldwork. Pursuant to survey protocol recommendations, specimens were visually searched for utilizing hand-held Coleman® lanterns to assist with anuran detections, and the trills characteristic of this species were listened for at all times. Weather conditions were conducive to toad surveying on each of the selected dates, with mostly dark skies and no precipitation.

Only a small portion of the Property supports potential Arroyo Toad breeding habitat. This area (“Study Area”) is found in the central eastern portion of the Property (Figure 2). The Study Area totals approximately 28 acres. All other areas of the site were determined to be unsuitable as Arroyo Toad breeding habitat (see discussion below) and were therefore not examined during the protocol field surveys.

RESULTS

Arroyo Toad Habitat Assessment

Miller Creek, a U.S.G.S. “blue-line” drainage, and several of its tributaries cross the Property. Habitat-types found in association with these drainages include Montane Meadow, Riparian Woodland, Freshwater Marsh, and Open Water. The southern portions of these drainages do not support suitable habitat for Arroyo Toad, as they are very deeply-incised and/or support a closed canopy over a willow thicket. However, the segment of Miller Creek that crosses the Montane Meadow, northeast of the existing home and near the headwaters of the creek (the Study Area), does support sand banks and shallow, open water. This portion of the creek is vegetated with scattered Mule Fat and willows. In areas that are not exposed sand, the understory species consist of hydrophytic grasses, forbs, and sub-shrubs, with upland species common in the northern stretch of the creek. This segment of the drainage contained flowing water during the first five field surveys although it had stopped flowing by the last survey (mid-June). This area appears to be suitable Arroyo Toad breeding habitat. However, it should be noted that this portion of the site has also been used for low- intensity cattle grazing for many decades.

Other habitat-types found on the Property include Granitic Chamise Chaparral, Red Shank Chaparral, Great Basin Scrub, Flat-top Buckwheat, Non-native Grassland, Coast Live Oak Woodland, and Disturbed/Developed Habitat. Chaparral, grasslands, scrubs, and woodlands are all known to be used by Arroyo Toads for upland aestivation. Offsite segments of Miller Creek near Clover Flat are reported to support Arroyo Toad breeding habitat. Because reported breeding habitat is present within one mile of the Property, the entire site is considered suitable upland aestivation and foraging habitat for this species. This is because Arroyo Toads are known to disperse up to 1.2 miles into upland areas from known breeding areas in order to forage and aestivate.

Arroyo Toad Presence/Absence Surveys

Arroyo Toads were not detected during the field survey. Two other anurans – Baja California Treefrog (*Pseudacris hypochondriaca*) and Western Toad (*Bufo boreas*) – were detected. Treefrogs were observed and heard calling from the southern and western portions of the Study Area during most of the field surveys. Western Toads were observed regularly but randomly throughout the Study Area. Both species breed onsite, and eggs, tadpoles and neonates were observed along with mature specimens.

Based on the results of this survey, the Study Area is considered “**unoccupied**” by Arroyo Toads as a resident, breeding species. However, as mentioned above, the entire site is considered suitable Arroyo Toad upland aestivation and foraging habitat.

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- Scheidt, Vincent N. 2011. A Biological Resources Survey Report and Evaluation of Resource Values for the Miller Valley Ranch Conservation/Mitigation Bank. Unpublished. 52 pp.
- U.S. Fish and Wildlife Service. 1994. Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Arroyo Southwestern Toad. Federal Register 16 Dec. 1994: 64859-64867 pp.
- U.S. Fish and Wildlife Service. 1999. Arroyo southwestern toad (*Bufo microscaphus californicus*) recovery plan. U.S. Fish and Wildlife Service, Portland, Oregon. vi-119 pp.
- U.S. Fish and Wildlife Service. 2005. Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Arroyo Toad (*Bufo californicus*); Final Rule. Federal Register 13 Apr. 2005: 19561-19633 pp.
- U.S. Fish and Wildlife Service. 2009. Endangered and Threatened Wildlife and Plants; Revised Critical Habitat for the Arroyo Toad (*Anaxyrus californicus*); Proposed Rule. Federal Register 13 Oct 2009: 52611-52664 pp.

Figure 1. Regional Location – Miller Valley Ranch Conservation/Mitigation Bank
Portion of USGS “Cameron Corners, California” 7.5' Quadrangle Map

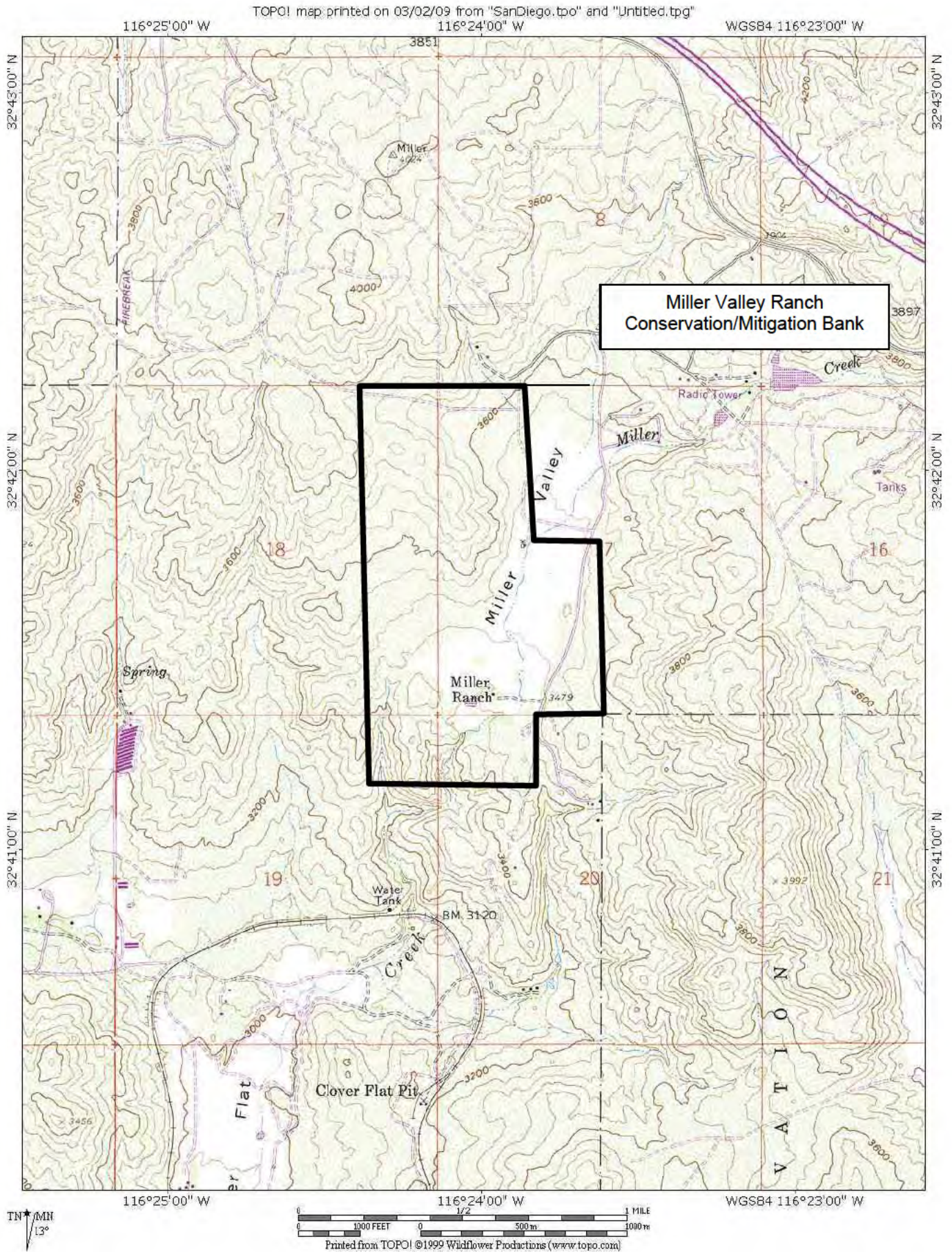
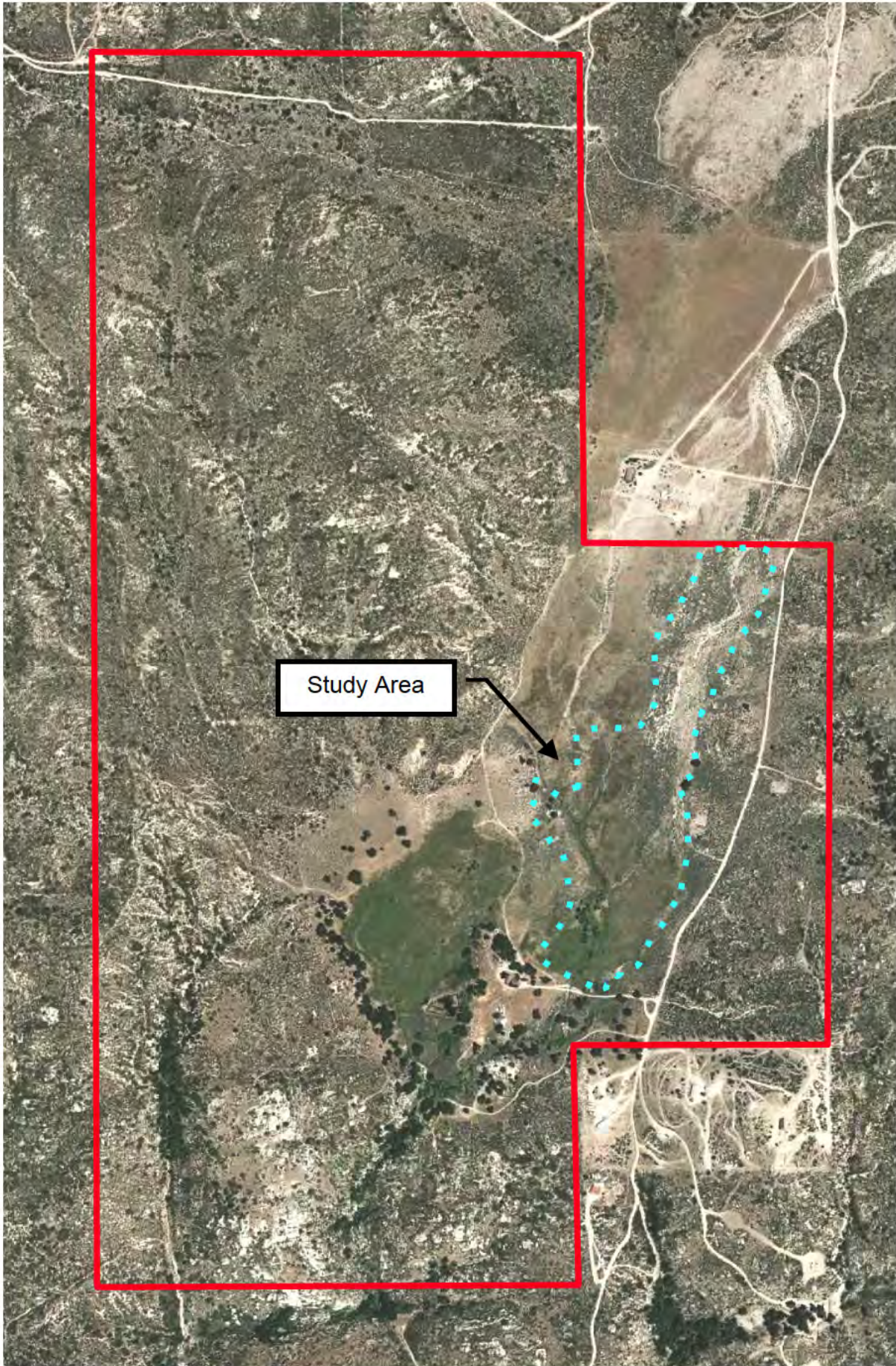


Figure 2. Study Area – Miller Valley Ranch



45-Day Survey Results for Arroyo Toad (*Bufo californicus*) – Miller Valley Ranch Conservation/Mitigation Bank

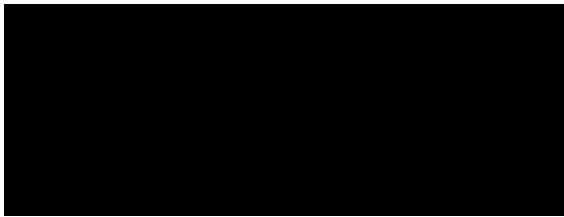
Location:	The Miller Valley Ranch property is located off Miller Valley Road in the Mountain Empire area of unincorporated San Diego County, California. The Study Area is located in the central eastern portion of the Property. A map showing the Property is attached (USGS "Cameron Corners").					
Habitat Description:	Miller Creek, a U.S.G.S. "blue-line" drainage, and several of its tributaries cross the Property. Habitat- types found in association with these drainages include Montane Meadow, Riparian Woodland, Freshwater Marsh, and Open Water. The southern portions of these drainages do not support suitable habitat for Arroyo Toad, as they are very deeply-incised and/or support a closed canopy over a willow thicket. However, the segment of Miller Creek that crosses the Montane Meadow, northeast of the existing home and near the headwaters of the creek (the Study Area), does support sand banks and shallow, open water. This portion of the creek is vegetated with scattered Mule Fat and willows. In areas that are not exposed sand, the understory species consist of hydrophytic grasses, forbs, and sub-shrubs, with upland species common in the northern stretch of the creek. This area appears to be suitable Arroyo Toad breeding habitat. However, it should be noted that this portion of the site has also been used for low-intensity cattle grazing for many decades. Other habitat-types found on the Property include Granitic Chamise Chaparral, Red Shank Chaparral, Great Basin Scrub, Flat-top Buckwheat, Non-native Grassland, Coast Live Oak Woodland, and Disturbed/Developed Habitat.					
Survey Methodologies	Pursuant to survey protocol recommendations, specimens were visually searched for utilizing hand-held Coleman® lanterns to assist with detections, and the trills characteristic of this species were listened for at all times. Weather conditions were conducive to toad surveying on each of the selected dates, with mostly dark skies at night and no wind or rain. Particular attention was paid to areas that had the highest probability of supporting toads (the Study Area).					
Name of personnel	Vince Scheidt Brandon Myers	Vince Scheidt Brandon Myers	Vince Scheidt Brandon Myers	Vince Scheidt Joseph Scheidt. Olivia Scheidt	Vince Scheidt Brandon Myers	Vince Scheidt Brandon Myers
Acres surveyed	28	28	28	28	28	28
Date of survey	14-Apr-2011	26-Apr-2011	16-May-2011	26-May-2011	13-Jun-2011	20-Jun-2011
Time	08:00 PM - 10:00 PM	9:45 PM - 12:00 AM	08:45 PM – 10:30 PM	08:45 PM – 10:30 PM	08:45 PM – 11:00 PM	08:00 PM – 10:15 PM
Weather Conditions	Clear skies, low 60°s, no wind	Clear skies, mid to high 50°s, no wind	Clear skies, mid 50°s, no wind	Clear skies, low 50°s, no wind	Clear skies, low 60°s, no wind	Clear skies, high 60°s, no wind
# of <i>Bufo boreas</i>	7	11	5	11	5 + many toadlets	4 + many toadlets
# of <i>Pseudacris hypochondriaca</i>	calls	calls	0	calls	1 + calls	calls
# of <i>Bufo californicus</i>	0	0	0	0	0	0

Least Bell's Vireo Survey Report

**REPORT OF A PROTOCOL FIELD SURVEY FOR
LEAST BELL'S VIREO (*VIREO BELLII PUSILLUS*)**

THE MILLER VALLEY RANCH
CONSERVATION/MITIGATION BANK
SAN DIEGO COUNTY, CALIFORNIA

Prepared for



Prepared by

Vincent N. Scheidt
Biological Consultant
3158 Occidental Street
San Diego, CA 92122
(858) 457-3873

July 2011

A handwritten signature in black ink, appearing to read 'Vincent N. Scheidt', written over a horizontal line.

Vincent N. Scheidt
Certified Biological Consultant
TE #788133

INTRODUCTION

This report presents the findings of a series of directed biological field surveys of portions of the approximately 477.0-acre Miller Valley Ranch Conservation/Mitigation Bank property (the "Property"); (APNs 609-130-01-07, 609-120-14-07, 609-020-01-06, 609-020-05-10, 609-010-01-10, and portion of 609-010-02-06).

The Property consists of mostly undeveloped land located off Miller Valley Road in the Mountain Empire area of unincorporated San Diego County, California (Figure 1). Least Bell's Vireo (*Vireo bellii pusillus*), a state-listed and federally-listed Endangered migratory songbird, is known from the vicinity of the Property and could breed onsite. The nearest known breeding records for this species are near Campo, which is about 6 miles to the southwest of the Property.

The Miller Valley Ranch property is being proposed for perpetual protection as a Conservation/Mitigation Bank. The Property would offer conservation credits and mitigation credits and serve as an "offsite" mitigation area to compensate for development-related impacts to native habitat on other properties within an established "service area". Therefore, the U.S. Fish and Wildlife Service (USFWS) and the U.S. Army Corps of Engineers (USACE) have requested that a protocol field survey for this endangered species be completed for the site. The results of this survey have been submitted to the USFWS, USACE, and California Department of Fish and Wildlife (CDFW). In addition, any other sensitive species detected during the surveys have been documented.

LEAST BELL' S VIREO BIOLOGY AND LIFE HISTORY

Least Bell's Vireo was listed as Endangered under the California Endangered Species Act on October 2, 1980 and under the Federal Endangered Species Act on May 2, 1986. The destruction and degradation of this species' habitat, as well as brood parasitism by the Brown-headed Cowbird (*Molothrus ater*), have resulted in a range-wide decline of the Least Bell's Vireo and the extirpation of many populations of this species. The breeding distribution of Least Bell's Vireo is currently restricted to eight counties in southern California and portions of northern Baja California, Mexico. Least Bell's Vireo is a migratory species that winters in southern Baja California, Mexico.

Least Bell's Vireo is an obligate riparian species during the breeding season. Vireos generally inhabit willow-dominated riparian thickets, although plant species composition does not appear to be as important as the presence of dense cover within 3-6 feet of the ground for nesting and a dense, stratified canopy for foraging. Breeding vireos occur in such habitats as cottonwood-willow woodlands, oak riparian forests, willow scrubs, and mule fat scrub. Vireos are also known to extend their territories up to 200 feet into adjacent upland habitats, such as coastal sage scrub, occasionally even nesting in these adjoining upland habitats.

METHODS

Fieldwork associated with this study consisted of a series of eight focused field surveys, pursuant to the most current USFWS protocol (January 19, 2001). Field dates and survey conditions are presented below, in “45-Day Survey Results for Least Bell’s Vireo (*Vireo bellii pusillus*) – Miller Valley Ranch Conservation/Mitigation Bank”.

Field surveys were completed by the author, Vincent Scheidt, in possession of Federal 10 (a)(1)(a) Recovery Permit TE #788133. Also present on three of the survey days completing a different survey was Viviane J. Marquez in possession of Federal 10 (a)(1)(a) Recovery Permit TE #800930. All areas of suitable onsite habitat were walked on each survey day. Pursuant to survey protocol recommendations, specimens were visually searched using binoculars, and the calls characteristic of this species were listened for at all times. Weather conditions were conducive to vireo surveying on each of the selected dates, with mostly clear skies and no precipitation.

Only a small portion of the Property supports potential Least Bell’s Vireo nesting habitat. This area (“Study Area”) is found in the central southern portion of the Property (Figure 2). It totals less than 20 acres. All other portions of the site were determined to be unsuitable as Least Bell’s Vireo breeding habitat (see discussion below) and were therefore not examined as closely during the protocol field surveys.

RESULTS

Least Bell’s Vireo Habitat Assessment

Miller Creek, a U.S.G.S. “blue-line” drainage, and several of its tributaries cross the southern half of the Property. Habitat-types found in association with these drainages include Montane Meadow, Riparian Woodland, Freshwater Marsh, and Open Water. The Montane Meadow, Freshwater Marsh, and Open Water are not vertically stratified in a manner that would support Least Bell’s Vireo nesting habitat. However, the majority of the Riparian Woodland onsite qualifies as suitable Least Bell’s Vireo nesting habitat, as the understory in these areas is sufficiently dense with the appropriate structure. The Riparian Woodland is dominated by mature Red and Arroyo Willows (*Salix laevigata*, *S. lasiolepis*). Understory species include Yerba Mansa (*Anemopsis californica*), Mexican Rush (*Juncus mexicanus*), Wild Rye (*Elymus glaucus*), and other hydrophytic forbs. However, the northernmost area of Riparian Woodland is subject to low-intensity cattle grazing and the understory is maintained at a very low stature. In addition, a portion of the southernmost Riparian Woodland is mowed on occasion to allow for access to a small pond and concrete dam. Therefore, both the northern and southern-most areas of Riparian Woodland do not qualify as potential Least Bell’s Vireo breeding habitat, due to disturbance of the understory.

Other habitat-types found on the Miller Valley Ranch property include Granitic Chamise Chaparral, Red Shank Chaparral, Great Basin Scrub, Flat-top Buckwheat, Non-native Grassland, Coast Live Oak Woodland, and Disturbed/Developed Habitat. As mentioned above, Least Bell's Vireos may also forage and nest in upland habitats adjacent to riparian areas. Therefore, vireos may theoretically be found in some of the habitats that adjoin the suitable areas of Riparian Woodland, such as Great Basin Scrub and Coast Live Oak Woodland.

Least Bell's Vireo Presence/Absence Surveys

No Least Bell's Vireos were detected during the field survey, and none are expected due to the limitations of the habitat. A variety of other bird species were detected (Table 1) using this site, including some facultative riparian species. Based on the results of this survey, the Study Area is considered "unoccupied" by Least Bell's Vireo.

Table 1 Avifauna Detected - Miller Valley Ranch

<u>Scientific Name</u>	<u>Common Name</u>
<i>Accipiter cooperii</i>	Cooper's Hawk
<i>Agelaius phoeniceus</i>	Red-winged Blackbird
<i>Ammodramus sandwichensis</i>	Savannah Sparrow
<i>Anas platyrhynchos</i>	Mallard
<i>Aphelocoma coerulescens</i>	Scrub Jay
<i>Archilochus anna</i>	Anna's Hummingbird
<i>Bubo virginianus</i>	Great Horned Owl
<i>Buteo jamaicensis</i>	Red-tailed Hawk
<i>Buteo lineatus</i>	Red-shouldered Hawk
<i>Callipepla californica</i>	California Quail
<i>Carduelis psaltria</i>	Lesser Goldfinch
<i>Carpodacus mexicanus</i>	Housefinch
<i>Cathartes aura</i>	Turkey Vulture
<i>Chamaea fasciata</i>	Wrentit
<i>Chordeiles acutipennis</i>	Lesser Nighthawk
<i>Colaptes auratus</i>	Common Flicker
<i>Contopus sordidulus</i>	Western Wood Peewee
<i>Corvus corax</i>	Common Raven
<i>Corvus brachyrhynchos</i>	Common Crow
<i>Dendrocopos nuttallii</i>	Nuttall's Woodpecker
<i>Dendroica townsendii</i>	Townsend's Warbler
<i>Empidonax sp.</i>	Empidonax Flycatcher
<i>Fulica americana</i>	American Coot
<i>Geothlypis trichas</i>	Common Yellowthroat
<i>Icterus cucullatus</i>	Hooded Oriole
<i>Melanerpes formicivorus</i>	Acorn Woodpecker
<i>Melospiza melodia</i>	Song Sparrow
<i>Myiarchus cinerascens</i>	Ash-throated Flycatcher
<i>Parus inornatus</i>	Plain Titmouse
<i>Phainopepla nitens</i>	Phainopepla
<i>Pheucticus melanocephalus</i>	Black-headed Grosbeak
<i>Picoides nuttallii</i>	Nuttall's Woodpecker
<i>Pipilo crissalis</i>	California Towhee
<i>Pipilo maculatus</i>	Spotted Towhee
<i>Piranga rubra</i>	Summer Tanager
<i>Plegadis chihi</i>	White-faced Ibis
<i>Psaltriparus minimus</i>	Bushtit
<i>Sayornis nigricans</i>	Black Phoebe
<i>Sialia mexicana</i>	Western Bluebird
<i>Sitta carolinensis</i>	White-breasted Nuthatch
<i>Spizella atrogularis</i>	Black-chinned Sparrow
<i>Stelgidopteryx serripennis</i>	Northern Rough-winged Swallow
<i>Sturnus vulgaris</i>	Starling
<i>Thryomanes bewickii</i>	Bewick's Wren
<i>Toxostoma redivivum</i>	California Thrasher
<i>Troglodytes aedon</i>	House Wren
<i>Tyrannus vociferans</i>	Cassin's Kingbird
<i>Wilsonia pusilla</i>	Wilson's Warbler
<i>Zenaida macroura</i>	Mourning Dove

REFERENCES

Scheidt, Vincent N. 2011. A Biological Resources Survey Report and Evaluation of Resource Values for the Miller Valley Ranch Conservation/Mitigation Bank. Unpublished. 52 pp.

U.S. Fish and Wildlife Service. 1998. Draft recovery plan for the least bell's vireo. U.S. Fish and Wildlife Service, Portland, Oregon. 139 pp.

U.S. Fish and Wildlife Service. 2001. Least Bell's Vireo Survey Guidelines. 3p.

Figure 1. Regional Location – Miller Valley Ranch Conservation/Mitigation Bank
Portion of USGS “Cameron Corners, California” 7.5' Quadrangle Map

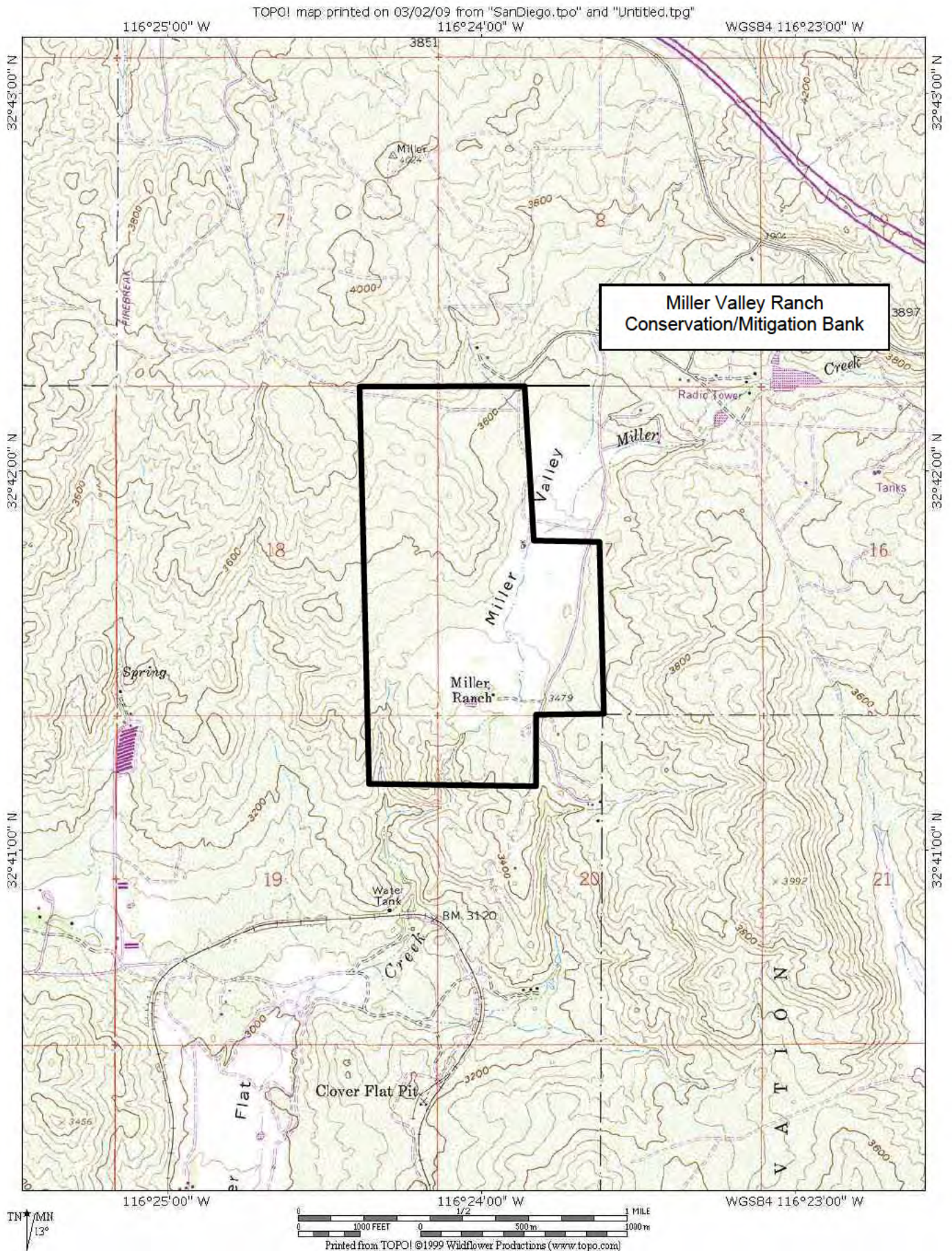
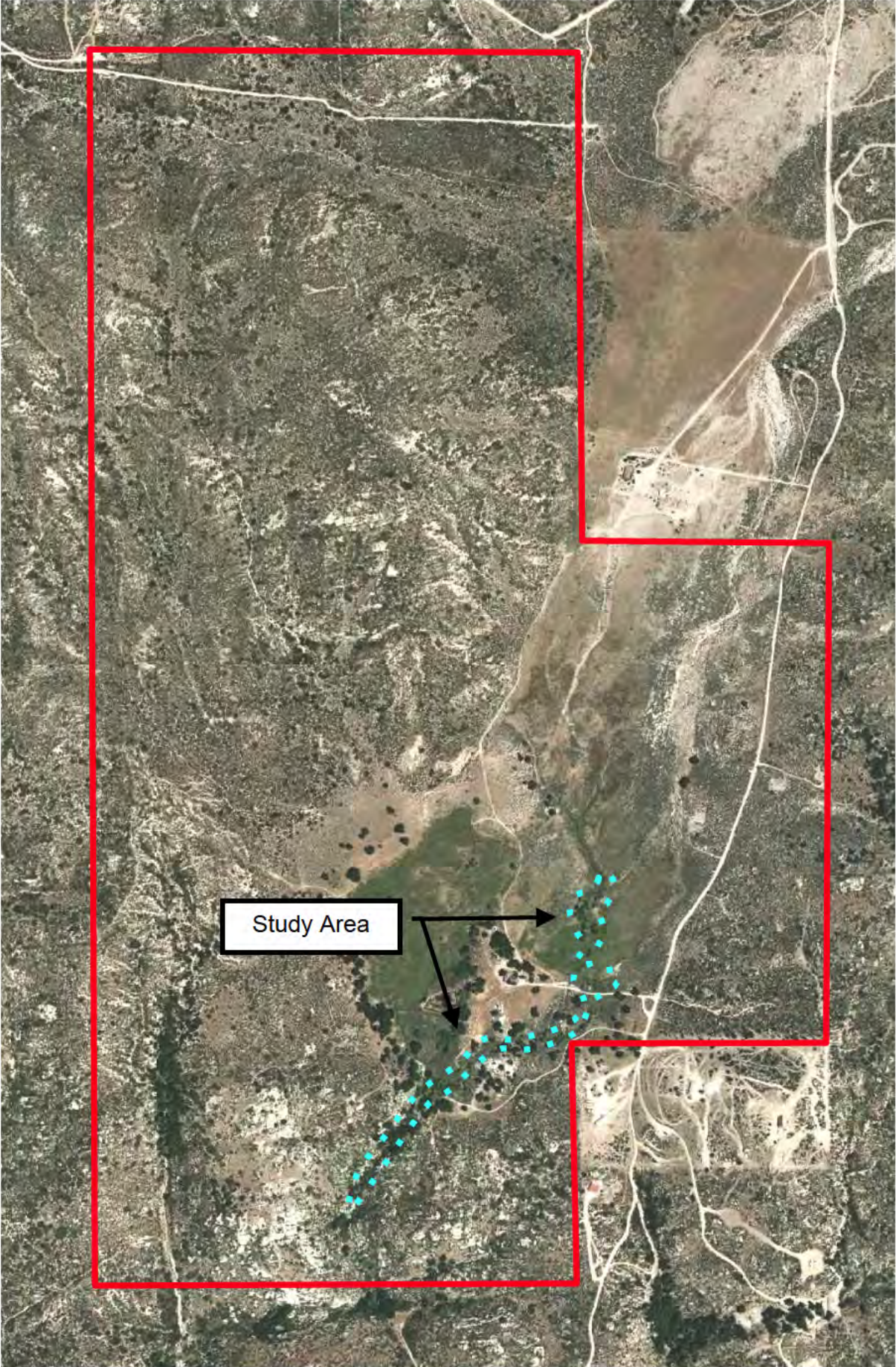


Figure 2. Study Area – Miller Valley Ranch Conservation/Mitigation Bank



Southwestern Willow Flycatcher Survey Report

**MARQUEZ & ASSOCIATES
BIOLOGICAL CONSULTANTS**

505 Willowspring Drive • Encinitas, CA 92024 • (760) 633-3066

July 27, 2011

Mr. Vince Scheidt
3158 Occidental Street
San Diego, CA 92122

Re: Miller Valley Ranch Southwestern Willow Flycatcher Surveys

Dear Mr. Scheidt:

This letter report documents the results of a focused survey conducted by Marquez & Associates Biological Consultants (Marquez & Associates) for the federally listed endangered southwestern willow flycatcher (*Empidonax traillii extimus*).

The survey occurred on Miller Creek within the Miller Valley Ranch property (APNs 609-130-01-07, 609-120-14-07, 609-020-01-06, 609-020-05-10, 609-010-01-10, and portion of 609-010-02-06). Miller Valley Ranch is located south of Interstate 8 and southwest of Caminos Tres Aves Road and Miller Valley Road, in the Mountain Empire area of unincorporated San Diego County, California and is being considered for preservation as a Conservation/Mitigation Bank (Figure 1).

Background

The southwestern willow flycatcher, a subspecies of the willow flycatcher (*Empidonax traillii*), was federally listed as endangered in 1995. Its decline is due to a combination of loss of riparian woodland habitat and parasitism by the brown-headed cowbird (*Molothrus ater*). Cowbird trapping has not resulted in a

comeback for the southwestern willow flycatcher, as it has for other riparian species, most notably the least Bell's vireo (Unitt, 2004).

Statewide the population of this subspecies is now estimated to be less than 200 pairs with less than 90 pairs nesting in San Diego County (Unitt, 2004). Most of the southwestern willow flycatcher population in California is concentrated in three locations: the south fork of the Kern River in Kern County; the upper San Luis Rey River in San Diego County; and Camp Pendleton in San Diego County (Kus, 2000). Elsewhere nesting is ephemeral, sometimes consisting of only a single isolated pair.

The southwestern willow flycatcher generally breeds in dense riparian habitats with surface water. However, a significant population also nests in oak woodland on the San Luis Rey River. Nests are often over water or in the outer branches of a tree with 86% of historic egg collections found in willow trees, 4% in stinging nettle and 10% in other plants (Unitt, 2004).

The southwestern willow flycatcher generally arrives in San Diego County from early May to early June and remains on their territory until early August. Juveniles depart later than adults, generally by mid-September (Unitt, 2004). The southwestern willow flycatcher is thought to winter in South America in the vicinity of Costa Rica (Sogge *et al.*, 2010).

Methods

Viviane Marquez (County-certified biologist and holder of U.S. Fish and Wildlife (USFWS) permit PRT-800390-9 for the southwestern willow flycatcher) conducted protocol southwestern willow flycatcher surveys within portions of Miller Creek during May, June and July, 2011. Surveys were conducted according to USFWS protocol for general (non-project related) surveys (Sogge *et al.*, 2010): one survey between May 15 and May 31; one survey between June 1

and June 24; and one survey between June 24 and July 17. The surveys consisted of walking on the east side of Miller Creek, through and adjacent to riparian habitat to identify the presence or absence of the southwestern willow flycatcher through vocalizations, detection of nests, and direct observation through Leica 10 X 42 power binoculars. Marquez & Associates played southwestern willow flycatcher vocalizations for 15 to 30 seconds approximately every 50 feet along the survey route, during each survey. The survey area consisted of less than a thousand linear feet of Miller Creek.

Although surveys continued beyond the recommended protocol time period of 10 a.m.; all southern willow scrub/riparian woodland habitat was surveyed prior to 10 a.m. Survey activity after 10 a.m. consisted of checking oak woodland habitat, generally unsuitable habitat that is not required to be surveyed, to confirm absence of the southwestern willow flycatcher. Weather conditions were appropriate during surveys with no excessive or abnormal cold, heat, rain or inclement conditions. Table 1 provides survey dates, times, weather conditions and results.

Table 1
Southwestern Willow Flycatcher Survey Conditions

Date	Time (a.m.)	Weather (skies)	Winds (m.p.h.)	Temp. (° F)	Results (presence or absence)
5/20/11	start: 8:40	clear	0 - 2	64.4°	absence
	end: 10:20	clear	0 - 3	71.5°	absence
6/10/11	start: 8:40	clear	0 - 2	67.8°	absence
	end: 10:45	clear	0 - 4	74.9°	absence
7/7/11	start: 8:30	clear	0 - 1	82.4°	absence
	end: 10:35	clear	1 - 4	82.9°	absence

Scientific nomenclature used in this report follows Hickman (1993) for plants,

Stebbins (1966) for reptiles and amphibians, Holland (1986) for plant community designation and the American Ornithologists' Union (1983) for bird nomenclature.

Results

The Miller Valley Ranch property does not occur in the vicinity of southwestern willow flycatcher populations. The nearest reports of southwestern willow flycatchers include a successful nesting pair in 2002, approximately 25 miles to the northwest, on the west side of El Capitan Reservoir (El Cajon Mountain quadrangle); and 2) numerous failed nests reported in 1998 and 1999, approximately 35 miles to the west, at the northeast end of the Sweetwater Reservoir (Jamul Mountains quadrangle) (CNDDDB 2009).

The habitat along Miller Creek within the subject property consists of southern willow scrub habitat with a small coast live oak (*Quercus agrifolia*) woodland component and some freshwater marsh dominated by cattails (*Typha* sp.) and yerba mansa (*Anemopsis californica*) (Attachment 1, Photo 1).

Southern willow scrub is a sensitive plant community because: it can provide breeding habitat for the least Bell's vireo, the southwestern willow flycatcher and other state and federally listed endangered species; it grows along drainages restricted under state and federal policies protecting streambed resources; and it is a valuable, naturally limited and declining habitat.

The southern willow scrub in the study area is dominated by arroyo willow (*Salix lasiolepis*), however, only a small portion of this habitat is considered dense (Attachment 1, Photo 2). Consequently, habitat for the southwestern willow flycatcher on this portion of Miller Creek is limited.

Animal species detected along Miller Creek during Marquez & Associates' surveys include 43 birds, two mammal and one reptile species (Attachment 2).

Surveys did not detect the southwestern willow flycatcher within the study area. Based on the limited amount of southern willow scrub on-site, the open nature of the existing habitat and the distance from historic observations, Marquez & Associates believes that the Miller Valley Ranch portion of Miller Creek has an extremely low likelihood of supporting southwestern willow flycatchers at this time or in the near future.

Marquez & Associates appreciates the opportunity to work with you on this project. If you have any questions regarding this report or the surveys conducted, please contact Viviane Marquez at (760) 633-3066.

Sincerely,

Viviane Marquez
Marquez & Associates Biological Consultants

Attachments: Photographs of Miller Creek
Animals Detected During Southwestern Willow Flycatcher Surveys

LITERATURE REFERENCED

American Ornithologists' Union. 1983. Check-list of North American birds. 6th edition. American Ornithologists' Union Washington, D.C. 877 pp.

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Hickman, James C. ed. 1993. The Jepson Manual: Higher Plants of California. University of California Press, Berkeley, xvii + 1400 pp.

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Sogge, M.K., Ahlers, Darrell, and Sferra, S.J., 2010, A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher: U.S. Geological Survey Techniques and Methods 2A-10, 38 p.

Stebbins, R. C. 1966. A Field Guide to Western Reptiles and Amphibians. Houghton Mifflin Company, Boston, Massachusetts.

Unitt, P. 2004. The San Diego County Bird Atlas. Proceedings of the San Diego Natural History Museum. No. 39, October 31, 2004.

ATTACHMENT 1
Photographs of Miller Creek



Photo 1. Freshwater marsh on Miller Creek and open riparian habitat. Photo taken facing north.



Photo 2. The background shows the most suitable area of southern willow scrub for southwestern willow flycatcher within the Miller Creek study area. Photo taken facing south.

ATTACHMENT 2

Animals Detected During Southwestern Willow Flycatcher Surveys

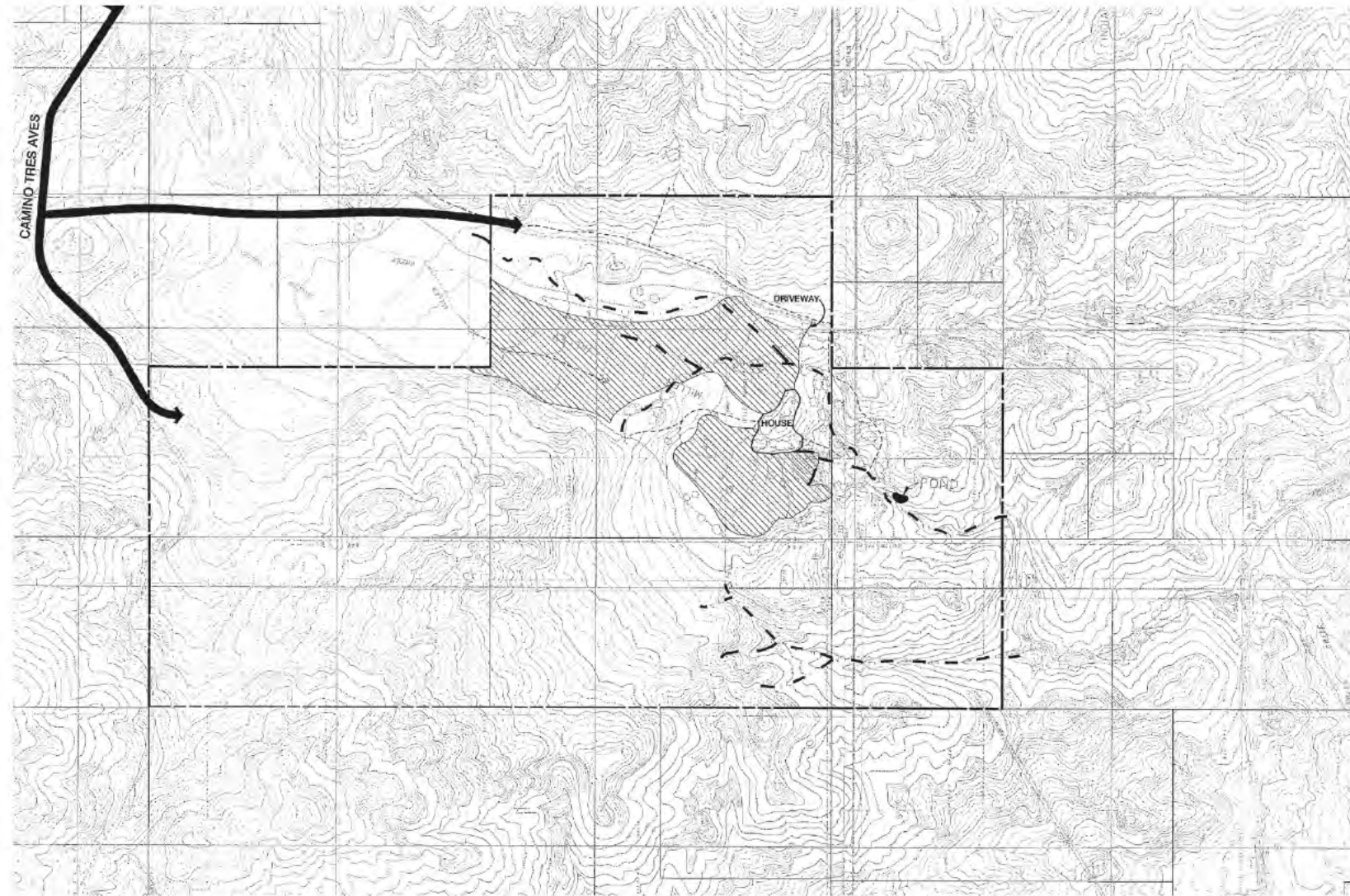
<u>Scientific Name</u>	<u>Common Name</u>
<i>Accipiter cooperii</i>	Cooper's Hawk
<i>Agelaius phoeniceus</i>	Red-winged Blackbird
<i>Anas platyrhynchos</i>	Mallard
<i>Aphelocoma coerulescens</i>	Western Scrub Jay
<i>Archilochus anna</i>	Anna's Hummingbird
<i>Baeolophus inornatus</i>	Plain/ Oak Titmouse
<i>Bubo virginianus</i>	Great Horned Owl
<i>Buteo jamaicensis</i>	Red-tailed Hawk
<i>Buteo lineatus</i>	Red-shouldered Hawk
<i>Callipepla californica</i>	California Quail
<i>Carduelis psaltria</i>	Lesser Goldfinch
<i>Carpodacus mexicanus</i>	Housefinch
<i>Cathartes aura</i>	Turkey Vulture
<i>Chamaea fasciata</i>	Wrentit
<i>Chordeiles acutipennis</i>	Lesser Nighthawk
<i>Colaptes auratus</i>	Common Flicker
<i>Contopus sordidulus</i>	Western Wood Peewee
<i>Corvus corax</i>	Common Raven
<i>Corvus brachyrhynchos</i>	Common Crow
<i>Dendrocopos nuttallii</i>	Nuttall's Woodpecker
<i>Dendroica townsendii</i>	Townsend's Warbler
<i>Fulica americana</i>	American Coot
<i>Geothlypis trichas</i>	Common Yellowthroat
<i>Icterus cucullatus</i>	Hooded Oriole
<i>Melanerpes formicivorus</i>	Acorn Woodpecker
<i>Melospiza melodia</i>	Song Sparrow
<i>Myiarchus cinerascens</i>	Ash-throated Flycatcher
<i>Phainopepla nitens</i>	Phainopepla
<i>Pheucticus melanocephalus</i>	Black-headed Grosbeak
<i>Picoides nuttallii</i>	Nuttall's Woodpecker
<i>Pipilo crissalis</i>	California Towhee
<i>Pipilo maculatus</i>	Spotted Towhee
<i>Psaltriparus minimus</i>	Bushtit
<i>Sayornis nigricans</i>	Black Phoebe
<i>Sialia mexicana</i>	Western Bluebird
<i>Sitta carolinensis</i>	White-breasted Nuthatch
<i>Stelgidopteryx serripennis</i>	Northern Rough-winged Swallow
<i>Sturnus vulgaris</i>	European Starling
<i>Thryomanes bewickii</i>	Bewick's Wren
<i>Toxostoma redivivum</i>	California Thrasher
<i>Troglodytes aedon</i>	House Wren
<i>Tyrannus vociferans</i>	Cassin's Kingbird
<i>Zenaida macroura</i>	Mourning Dove
<i>Felis rufus</i>	Bobcat
<i>Phrynosoma coronatum blainvillei</i>	San Diego Horned Lizard
<i>Spermophilus beecheyi</i>	California Ground Squirrel

ATTACHMENT C



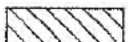
Affinis 2006 Wetland Exhibit


MILLER VALLEY RANCH WETLANDS AND JURISDICTIONAL WATERS


County of San Diego, California



KEY TO MAP:

-  DIRT ROAD
-  STREAM
-  WETLANDS

 NORTH


0 200 400 800 1200
SCALE IN FEET
1" = 400'