Appendix D2
General Biological Assessment (MBA 2007)

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DRAFT
General Biological Resources Report
Martin Ranch Project Site
Unincorporated San Bernardino County, California

San Bernardino North, California, USGS 7.5-minute Topographic Quadrangle Map
Township 2 North, Range 5 West, Sections 25, 36 and
Devore California, USGS 7.5-minute Topographic Quadrangle Map
Township 2 North, Range 5 West, Sections 25, 36
380-Acre Study Area

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June 5, 2007

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SECTION 1: INTRODUCTION

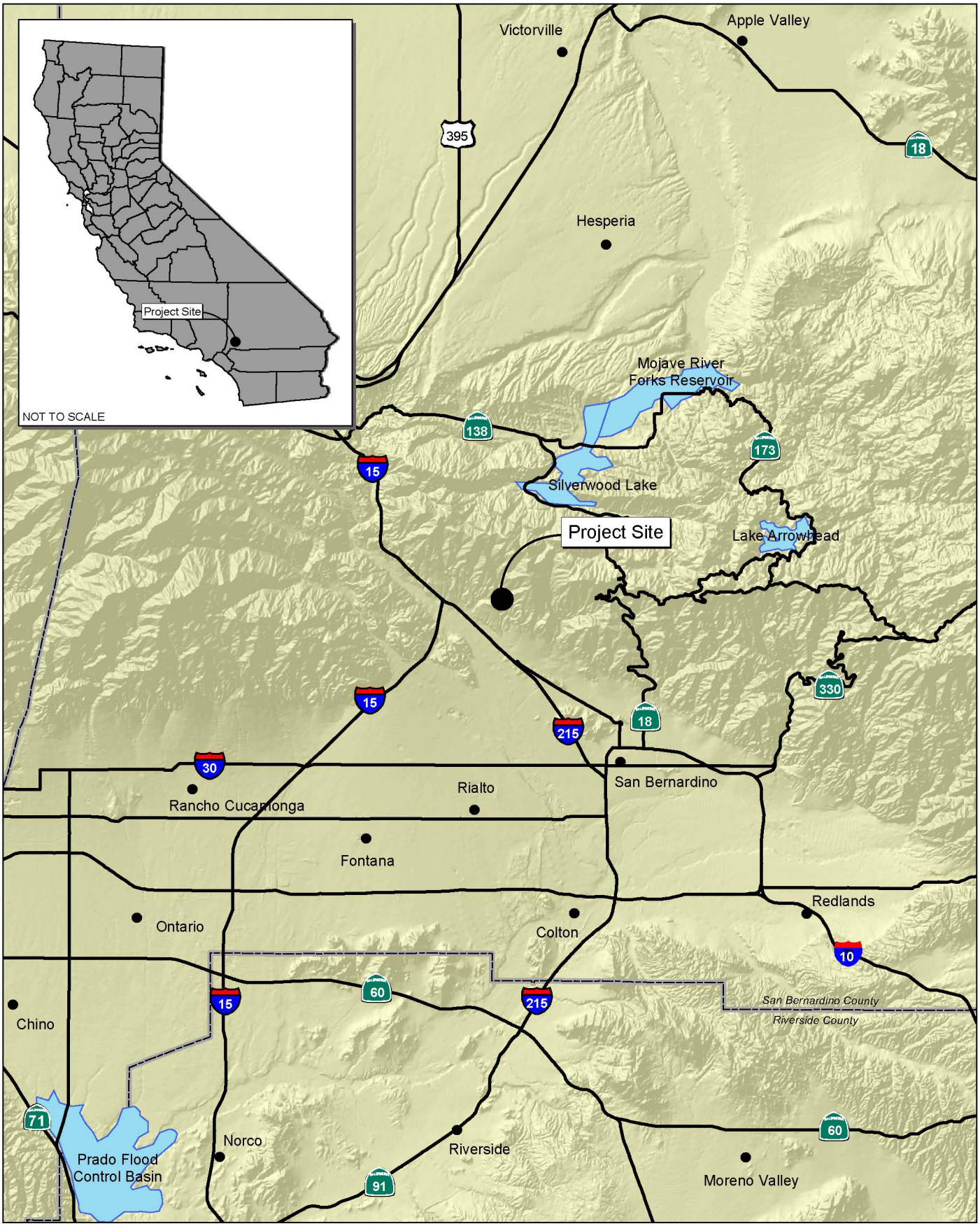
Michael Brandman Associates (MBA), on behalf of Montecito Equities, conducted biological surveys on the approximately 380-acre project site, including access roads, located in an unincorporated portion of the County of San Bernardino. The area will be annexed into the City of San Bernardino. The project site is approximately 1.5 miles due east of the unincorporated community of Devore and the junction of the Interstate 215 (I-215) and Interstate 15 (I-15) freeways (see Exhibit 1). Regional access to the project site is via the I-215 Freeway existing at the Palm Avenue interchange. Local access is currently provided by little League Drive, north to Meyers Road, which is taken west to Martin Ranch Road, then northerly into the project site (see Exhibit 2).

This report presents the results of a literature review, general field surveys, focused surveys for San Bernardino kangaroo rat (*Dipodomys merriami parvus*) (SBKR), California gnatcatcher (*Polioptila californica californica*) (CAGN), least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), mountain yellow-legged frog (*Rana muscosa*), arroyo southwestern toad (*Bufo microscaphus californicus*) and sensitive plants. The report concludes with a discussion of potential impacts from project development.

SECTION 2: METHODS

A literature review was conducted to assist in determining the existence or potential occurrence of sensitive plant and animal species on the proposed project site and in the vicinity of the site. California Department of Fish and Game (CDFG) Natural Diversity Data Base (CNDDB) records for the San Bernardino North U.S. Geological Survey (USGS) 7.5-minute quadrangle and the neighboring USGS quadrangles (Devore and San Bernardino South) were searched on March 1, 2007, using the CDFG's *Rarefind 2* (CNDDB 2004) and using the California Native Plan Society's (CNPS) *Electronic Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2006).

A general reconnaissance-level field survey was conducted on December 15, 2006 by MBA biologist Marnie McKernan. Notes were taken on general site conditions, vegetation structure, and jurisdictional waters, and recovery of habitat following the October 2003 fire. All plant and animal species observed or otherwise detected during this field survey were noted. Representative photographs were taken of the various habitat types. A list of plants and animals observed onsite is provided in Appendix A. Appendix B summarizes the sensitive plant and animal species reported or known occurrences in the region and their likelihood to occur on the site. Appendix C provides photographic documentation of various plant communities found onsite as they appeared in April 2007.



Source: Census 2000 Data, The CaSIL, MBA GIS 2005.

Michael Brandman Associates

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Exhibit 1
Regional Location Map

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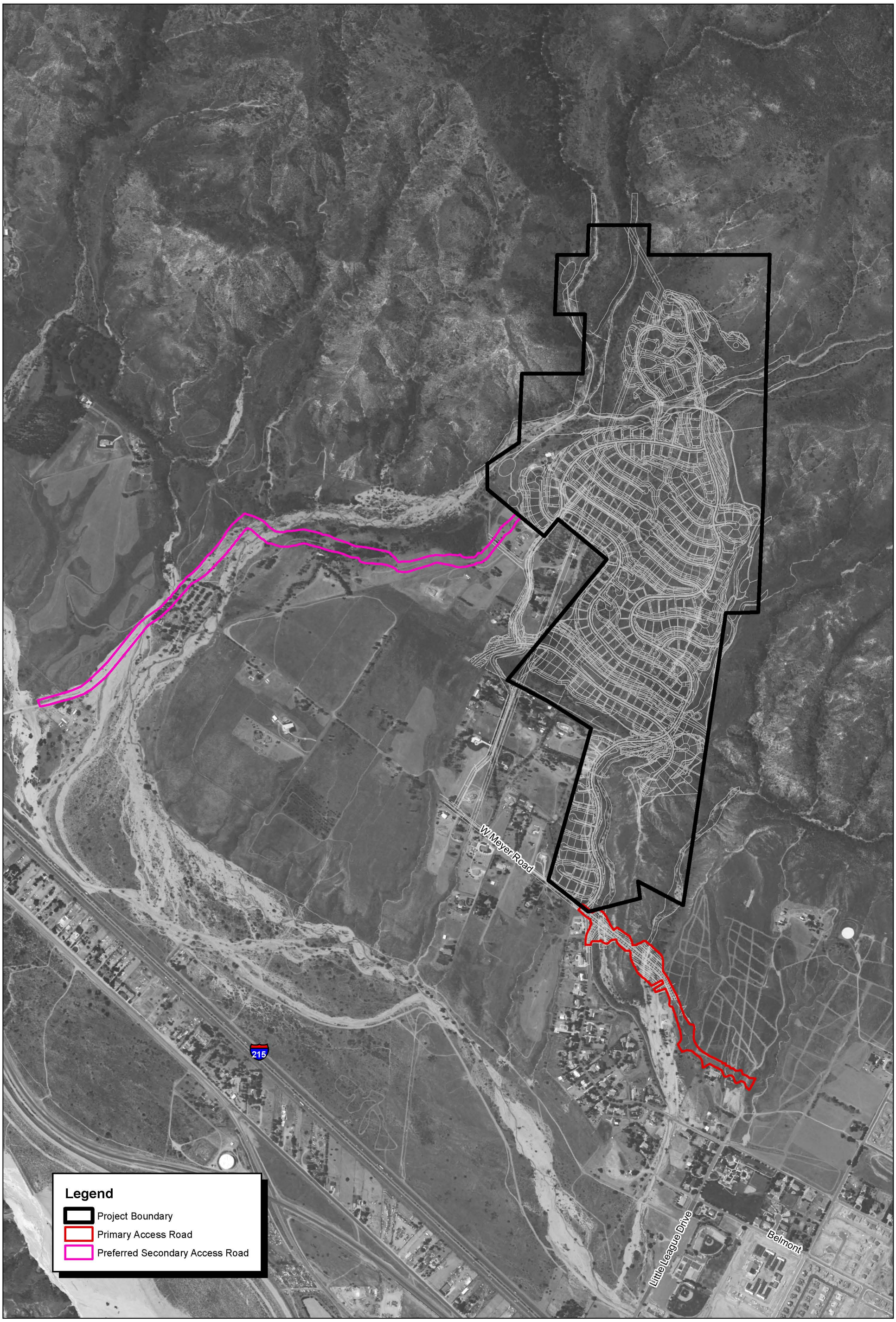
MARTIN RANCH
BIOLOGICAL RESOURCES REPORT



Source: TOPO! USGS San Bernardino North (1996) 7.5' DRG.

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Michael Brandman Associates

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Exhibit 2
Local Vicinity Aerial Map

MARTIN RANCH
BIOLOGICAL RESOURCES REPORT

SECTION 3: RESULTS

The following discusses the existing site conditions, including topography and soils, vegetation, and wildlife.

3.1 - Existing Conditions

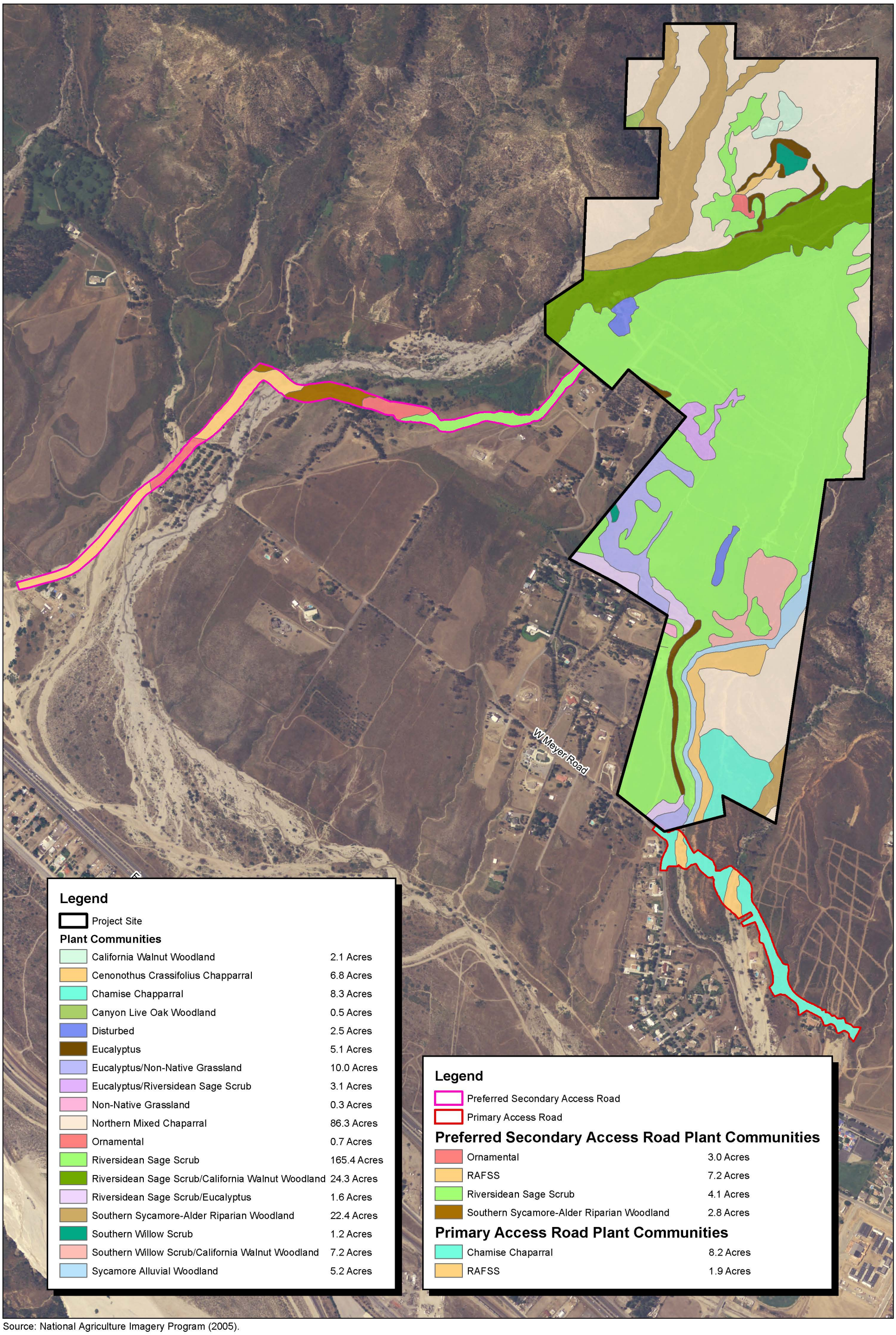
Historic Land Use. Martin Ranch was used for agricultural purposes from the mid-19th Century through 1989. The site has remained fallow since 1989. On November 24, 1980, the Panorama fire burned the site, leaving only the mature eucalyptus trees and the vegetation within the canyon areas. In October 2003, the Old Fire swept across the front of the San Bernardino Mountains burning the site's vegetation, except in the northernmost portion of Cable Canyon.

Topography. The project site is in the foothills of the San Bernardino Mountains and is approximately 1.5 miles due east of the junction of the I-215 and I-15 freeways. The majority of the site consists of a southwesterly sloping alluvial terrace bracketed on the west by Cable Canyon and on the east by Meyers Canyon. Elevations onsite vary from 2,010 feet above mean sea level to 3,540 feet above mean sea level.

Soils. The majority of the soils onsite are either Tujunga gravely loamy sand (0 to 9 percent slopes) or Soboba stony loamy sands (2 to 9 percent slopes). Both of these soil series are associated with the broad, smooth alluvial fans found onsite. The other soil type on site is the Saugus sandy loam, 30 to 50 percent slopes, found in the deeply incised canyon areas and along the San Andreas Fault.

3.2 - Vegetation

The project site has recovered dramatically from the October 2003 Old Fire and again supports a diversity of habitat types as a result of many drainages and varied topographical conditions. Eighteen different plant communities were identified on the project site. A brief description of the plant communities, the plant species common to these communities, and current condition of the habitat is provided below and was based on field observations of the biological resources on the project site. Exhibit 3 shows the distribution of these 18 plant communities on the project site. Table 3-1 summarizes the plant communities found onsite, the extent of their occurrence and whether the plant community is restricted to the project site, one of the access roads, or both.



Source: National Agriculture Imagery Program (2005).

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Michael Brandman Associates

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Exhibit 3
Plant Communities Map

MARTIN RANCH
BIOLOGICAL RESOURCES REPORT

Table 3-1: Plant Communities

Plant Community	Acreage		
	Project Site	Primary Access Road	Secondary Access Road
California walnut woodland	2.1		
Ceanothus crassifolius chaparral	6.8		
Chamise chaparral	8.3	8.2	
Canyon live oak woodland	0.5		
Disturbed	2.5		
Eucalyptus	5.1		
Eucalyptus/Non-native grassland	10.0		
Eucalyptus/Riversidean sage scrub	3.1		
Non-native grassland	0.3		
Northern mixed chaparral	86.3		
Ornamental	0.7		3.0
Riversidean sage scrub	165.4		4.1
Riversidean alluvial fan sage scrub		1.9	7.2
Riversidean sage scrub/California walnut woodland	24.3		
Riversidean sage scrub/Eucalyptus	1.6		
Southern sycamore-alder riparian woodland	22.4		
Southern willow scrub	1.2		
Southern willow scrub/California walnut woodland	7/2		2.8
Sycamore alluvial woodland	5.4		

3.2.1 - California Walnut Woodland

California walnut woodland was found in the northeastern portion of the property in a dense patch at the base of hillsides (see Exhibit 3). The California walnut woodland is healthy and has substantially recovered from the Old Fire. This community occupied 2.1 acres of the project site and integrates with the surrounding chaparral and Riversidean sage scrub (RSS) plant communities. Characteristic species found onsite included California walnut, coast live oak, sugar bush, and skunkbrush. Understories consisted of rushes (*Juncus* sp.), western ragweed (*Ambrosia psilostachya*), and tarragon (*Artemisia dracunculus*).

3.2.2 - Ceonothus Crassifolius Chaparral

Ceonothus crassifolius chaparral occupied 6.8 acres and occurred in a large patch in the southern portion of the project site and a much smaller patch in the north (see Exhibit 3). Chaparral is a fire-adapted plant community. The ceonothus crassifolius chaparral community has substantially recovered from the 2003 Old Fire and is in an intermediate successional stage. Dominant plant

species occurring onsite included hoary leaf ceonothus, chamise, toyon, scrub oak, and sugar bush (*Rhus ovata*) occurring as subdominants.

3.2.3 - Chamise Chaparral

Chamise chaparral comprises approximately 8.3 acres in the southern portion of the project site (see Exhibit 3). Chaparral is a fire-adapted plant community. The chamise chaparral community has substantially recovered from the 2003 Old Fire and is in an intermediate successional stage. Although chamise was the dominant shrub, other shrubs were present, including California buckwheat, white sage, golden yarrow (*Eriophyllum confertifolium*), deerweed, and California sagebrush.

3.2.4 - Canyon Live Oak Woodland

Canyon live oak woodland is dominated by canyon live oak (*Quercus chrysolepis*), holly-leaved cherry, and skunkbrush and is found on gentle to steep, north-facing hillsides below 8,500 feet in elevation. A small 0.5-acre patch of Canyon live oak woodland occurs in the northwestern portion of the property (see Exhibit 3). This woodland has recovered from the 2003 Old Fire with younger trees re-established within this community.

3.2.5 - Disturbed

Scattered areas of disturbed habitat occur throughout the project site. Types of disturbed areas found on the property include cleared land, a residential area, and unpaved access roads. In total, these were 2.5 acres of disturbed habitat.

3.2.6 - Eucalyptus

Eucalyptus species occurring onsite include red gum (*Eucalyptus camaldulensis*), blue gum (*Eucalyptus globulus*), silver-dollar gum (*Eucalyptus polyanthemos*), and flooded gum (*Eucalyptus rudis*). These trees are scattered throughout the project site and intermix with Riversidean alluvial fan sage scrub (RAFSS), RSS, and non-native grassland communities. Eucalyptus trees are remnants of a commercial fuel wood plantation and are not native to the area. In total, there are 19.8 acres of eucalyptus trees in various stages of mixture with surrounding plant communities: pure eucalyptus stands (5 acres), eucalyptus/non-native grassland (10 acres), and eucalyptus/RSS (4.7 acres).

3.2.7 - Non-native Grassland

Onsite, this community is restricted to a 0.3-acre patch occupying a low-lying flat terrain in the southwestern portion of the property (see Exhibit 3). Dominant species include wild oat (*Avena fatua*), slender wild oat (*Avena barbata*), ripgut grass (*Bromus diandrus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), barley (*Hordeum vulgare*), fescue (*Vulpia myuros*), black mustard (*Brassica nigra*), red-stemmed filaree, and cheeseweed (*Malva parviflora*). Non-native grassland is one of the first plant communities to re-establish following a disturbance such as a fire. The small size of this plant community attests to the overall recovery of all the plant communities found on the project site.

3.2.8 - Northern Mixed Chaparral

This is the largest occurring chaparral community found onsite. It contains a diversity of broad-leaved, drought adaptive shrubs, including chamise chaparral (*Adenostoma fasciculatum*), whitethorn (*Ceanothus leucodermis*), scrub oak (*Quercus berberidifolia*), birch-leaf mountain-mahogany (*Cercocarpus betuloides*), hoary leaf ceanothus (*Ceanothus crassifolius*), Mexican elderberry (*Sambucus mexicana*), holly-leaf redberry (*Prunus illicifolia*), toyon (*Heteromeles arbutifolia*), and skunkbrush (*Rhus trilobata*). Northern mixed chaparral comprised 86.3 acres of the project site and occurred on the steeper, rocky slopes predominantly in the northern and eastern portions of the project site (see Exhibit 3). Chaparral is a fire-adapted plant community. The chaparral community has substantially recovered from the 2003 Old Fire and is in an intermediate successional stage.

3.2.9 - Ornamental

Less than an acre (0.7 acre) of ornamental vegetation occurs in the northern portion of the property around an old house foundation. The area included tree of heaven (*Ailanthus altissima*), olive (*Olea europaea*), eucalyptus (*Eucalyptus* sp.), California black walnut, and incense cedar (*Calocedrus decurrens*). This 0.7-acre of ornamental vegetation was unaffected by the 2003 Old Fire.

3.2.10 - Riversidean Sage Scrub

RSS is the most xeric (dry, desert-like) expression of coastal sage scrub in southern California and has adapted to periodic occurrence of fire and other forms of disturbance. The majority of RSS onsite has a history of disturbance. Much of the area currently supporting RSS was dryland farmed or grazed until 1989. Major fires, which temporarily reduce or destroy the plant community, include the 1980 Panorama Fire and the 2003 Old Fire. Today the RSS onsite has substantially recovered and is currently in an intermediate phase of succession. This community is dominated by California buckwheat, deer weed, white sage, yerba santa and black sage. There are currently 165.4 acres of RSS within the project site.

3.2.11 - Riversidean Sage Scrub/California Walnut Woodland

There are approximately 24.3 acres of this mixed plant community onsite located in the northern portion of the site.

3.2.12 - Riversidean Alluvial Fan Sage Scrub

The CDFG lists RAFSS as rare and it is considered a sensitive plant community. CDFG's list of natural communities categorizes plant communities first by general habitat, then as alliances within the general habitat, and finally as associations within alliances. RAFSS is an association within the RSS alliance, which falls within the general habitat type of coastal scrub. RAFSS is an open plant community adapted to the harsh conditions of flooding. It grows on sandy, rocky alluvium deposited by streams that experience infrequent episodes of flooding. Alluvial sage scrub is composed of an assortment of drought-deciduous sub-shrubs and large, evergreen, woody shrubs that are adapted to the periodic and intense episodes of flooding and erosion that occurs along the alluvial fans.

Scalebroom (*Lepidospartum squamatum*) has a high fidelity to alluvial substrates and was located throughout this plant community. Additional species common to RAFSS and located onsite include: spiny redberry (*Rhamnus crocea*), chaparral yucca (*Yucca whipplei*), California croton (*Croton californicus*), birch-leaf mountain mahogany (*Cercocarpus betuloides*), yerba santa (*Eriodictyon trichocalyx*) and deerweed (*Lotus scoparius*). Cable Creek has a number of riparian species growing along its margins, including California sycamore (*Platanus racemosa*), Freemont cottonwood (*Populus fremontii* ssp. *fremontii*), blue elderberry (*Sambucus mexicana*), southern California black walnut (*Juglans californica* var. *californica*), and California wild grape (*Vitis californica*).

The RAFSS onsite is comprised of yerba santa (*Eriodictyon trichocalyx*)); buckwheat (*Eriogonom fasiculatum*); croton (*Croton californicus*); and deerweed (*Lotus scoparius*) and annuals, including sun cup (*Camissonia* sp.), popcorn flower (*Cryptantha* sp.) and phacelia (*Phacelia distans*).

3.2.13 - Southern Sycamore-Alder Riparian Woodland

There are 22.4 acres of southern sycamore-alder riparian woodland onsite, primarily found in association with Cable Creek in the northwest corner of the site. A small patch of this woodland also occurs near the extreme southeastern corner of the site. Plants found within this community consisted primarily of big leaf maple (*Acer macrophyllum*), coast live oak (*Quercus agrifolia*), white alder (*Alnus rhombifolia*), western sycamore, California bay (*Umbellularia californica*), California black walnut (*Juglans californica*), scrub oak, and Mexican elderberry. Understory species included California blackberry, poison oak, wild grape, and mugwort. This riparian woodland occurs within the canyon bottoms and was not as adversely affected from the wildfire as those plant communities found on the alluvial fans and hilltops. Vegetation within this woodland is diverse and healthy and shows no remaining adverse impacts from the 2003 Old Fire.

3.2.14 - Southern Willow Scrub

Two small areas, comprising 1.2 acres, of southern willow scrub occurred on the project site—one large patch in the north and a smaller patch along the western boundary (see Exhibit 3). The community is found primarily in association with Meyer Canyon and supports arroyo willow (*Salix lasiolepis*) and red willow (*Salix laevigata*), with lesser amounts of mulefat (*Baccharis salicifolia*), Fremont's cottonwood (*Populus fremontii* ssp. *fremontii*), and Mexican elderberry. The understory consisted of wild grape (*vitis californicus*), poison oak (*toxicodendron diversilobum*), mugwort (*artemisia douglasiana*), California blackberry (*Rubus ursinus*), and numerous ferns. This riparian woodland occurs within the canyon bottoms and was not as adversely affected as those plant communities found on the alluvial fans and hilltops. Vegetation within this woodland is diverse and healthy and shows no remaining adverse impacts from the 2003 Old Fire.

3.2.15 - Southern Willow Scrub/California Walnut Woodland

The southern willow scrub found onsite was mixed with California walnut woodland, in one large patch totaling 7.2 acres in the southern portion of the project site in the vicinity of the San Andreas

Fault Zone (see Exhibit 3). This riparian woodland occurs within the canyon bottoms and was not as adversely affected from wildfire as those plant communities found on the alluvial fans and hilltops. Vegetation within this woodland is diverse and healthy and shows no remaining adverse impacts from the 2003 Old Fire.

3.2.16 - Sycamore Alluvial Woodland

Sycamore alluvial woodland was found onsite, dominated by western sycamore, scrub oak, and Mexican elderberry. The 5.2 acres of woodland are associated with the braided, depositional channels of Meyers Canyon in the southern portion of the site. This riparian woodland occurs within the canyon bottoms and was not as adversely affected from wildfire as those plant communities found on the alluvial fans and hilltops. Vegetation within this woodland is diverse and healthy and shows no remaining adverse impacts from the 2003 Old Fire.

3.3 - Access Roads

3.3.1 - Proposed Primary Access Road

The proposed primary access road alignment is the westerly extension of Verdemont Drive, west of Little League Drive. The primary access road crosses primarily through a chamise chaparral plant community covering the slopes of an alluvial fan. The northern extension of this road crosses over Meyer Creek and an unnamed tributary and the Riversidean alluvial fan sage scrub (RAFSS) plant community found in association with riverine habitat. In total, 1.9 acres of RAFSS habitat occur in the proposed alignment (see Exhibit 3).

3.3.2 - Proposed Secondary Access Road

The proposed secondary access road begins at its eastern extension on a bench containing RSS vegetation (4.1 acres are within the alignment) and passes through 3.0 acres of ornamental woodland and 2.8 acres of southern sycamore-alder riparian woodland in the middle section of the alignment. The road then crosses over Cable Creek which is a braided channel with alluvial materials. A perennial stream flows year round in the stretch of Cable Creek. A RAFSS plant community is found along the banks of the stream and includes mulefat, willow, tree tobacco, wild grape (*Vitis* sp.) and bay trees. A total of 7.2 acres of the RAFSS plant community extends through the western section of the proposed access road (see Exhibit 3).

3.4 - Wildlife

3.4.1 - Amphibians

Cable Creek traverses the property and the occurrence of this perennial stream onsite provides adequate habitat for common amphibian species. In addition, the project site can support a variety of amphibians in the moister woodland areas and canyon bottoms. California tree frog (*Hyla cadaverina*) was observed on the project site during surveys. Additional species with the potential to occur due to the presence of riparian habitat include the Pacific slender salamander (*Batrachoseps*

pacificus), western toad (*Bufo boreas*), western spadefoot toad (*Scaphiopus hammondii*), mountain yellow-legged frog (*Rana muscosa*), and arroyo southwestern toad (*Bufo microscaphus californicus*). Species not likely to occur onsite due to lack of suitable habitat include the California red-legged frog (*Rana aurora draytonii*).

3.4.2 - Reptiles

The project site possesses the potential to support a wide variety of species. Reptile species observed during surveys included the western fence lizard (*Scleroporus occidentalis*), side-blotched lizard (*Uta stansburiana*), western rattlesnake (*Crotalus viridis*), and California whipsnake (*Masticophis lateralis*). Other species expected to occur include the western skink (*Eumeces skiltonianus*), sagebrush lizard (*Scleroporus graciosus*), gopher snake (*Pituophis catenifer*), ringneck snake (*Diadophis punctatus*), and common kingsnake (*Lampropeltis getulus*).

3.4.3 - Mammals

A number of mammal species were either directly observed, or their presence was deduced by diagnostic signs (track, scat, burrows, etc.). Among these were the desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Spermophilus beecheyi*), bobcat (*Lynx rufus*), coyote (*Canis latrans*), and mule deer (*Odocoileus hemionus*).

A small mammal-trapping program in 2007 revealed the presence of numerous rodent species on the Martin Ranch property. Species found include deer mouse (*Peromyscus maniculatus*), California mouse (*Peromyscus californicus*), cactus mouse (*Peromyscus eremicus*), dusky-footed woodrat (*Neotoma fuscipes*), San Diego pocket mouse (*Chaetodipus fallax*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), western harvest mouse (*Reithrodontomys megalotis*), and Pacific kangaroo rat (*Dipodomys agilis*).

3.4.4 - Special Interest Species

Legal protection for sensitive species varies widely, from the comprehensive protection extended to listed threatened/endangered species to no legal status at present. The CDFG, USFWS, local agencies, and special interest groups, such as the CNPS, publish watch lists of declining species. Species on watch lists can be included as part of the sensitive species assessment. Species that are candidates proposed for listing or are candidates for State and/or Federal listing are also included in the sensitive species list.

Inclusion of the potential species described in the sensitive species analysis of the study area is based on the following criteria:

1. Direct observation of the species or its sign in the study area or immediate vicinity during surveys conducted for this study or reported in previous biological studies;

2. Sighting by other qualified observers;

3. Record reported by the CNDDB published by CDFG;

4. Presence or location of specific species lists provided by private groups (e.g., CNPS); or

5. Study area lies within known distribution of a given species and contains appropriate habitat.

The literature review revealed a total of 13 sensitive plant species and 48sensitive wildlife species with the potential to occur within the area of the proposed project site. Appendix B lists these species with a data summary for each and a determination as to the likelihood of the species occurring on the proposed project site.

Threatened/Endangered Species. Of the five threatened/endangered plant species and nine threatened/endangered wildlife species that were identified as occurring within the vicinity of the project site, three plants and six wildlife species were determined to have a moderate or higher potential to occur on the project site. Focused surveys in 2007 did not detect any of these nine federally/State listed species on the proposed project site. Based on the results of focused surveys, all nine species are considered absent from the project site.

Nevin's Barberry. The site contains suitable habitat for the Nevin's barberry, however this plant species was not observed during focused botanical surveys in 2007.

Slender-horned Spineflower. There is suitable habitat within Cable Creek Wash; however, focused surveys were negative in 2007.

Santa Ana River Woollystar. There is suitable habitat within Cable Creek Wash; however, focused surveys were negative in 2007.

San Bernardino Merriam's Kangaroo Rat. The RAFSS habitat found in association with the proposed access roads provide suitable sandy soils for the federally listed SBKR. Surveys in 2007 for SBKR were negative. The proposed Secondary Access road is located within designated USFWS SBKR Critical Habitat.

Coastal California Gnatcatcher. The RSS plant community onsite provides suitable foraging and nesting habitat for CAGN. Focused surveys in 2007 for this species were negative.

Southwestern Willow Flycatcher. The riparian woodland plant communities in Cable Creek and Meyers Creek provide suitable habitat for willow flycatcher. Previous surveys conducted were negative. An update to the focused surveys will be conducted between May and July 2007 to verify the absence of this species.

Least Bell's Vireo. The riparian woodland plant communities in Cable Creek and Meyers Creek provide suitable habitat for the least Bell's vireo. Previous surveys conducted were

negative. An update to the focused surveys will be conducted between May and July 2007 to verify the absence of this species.

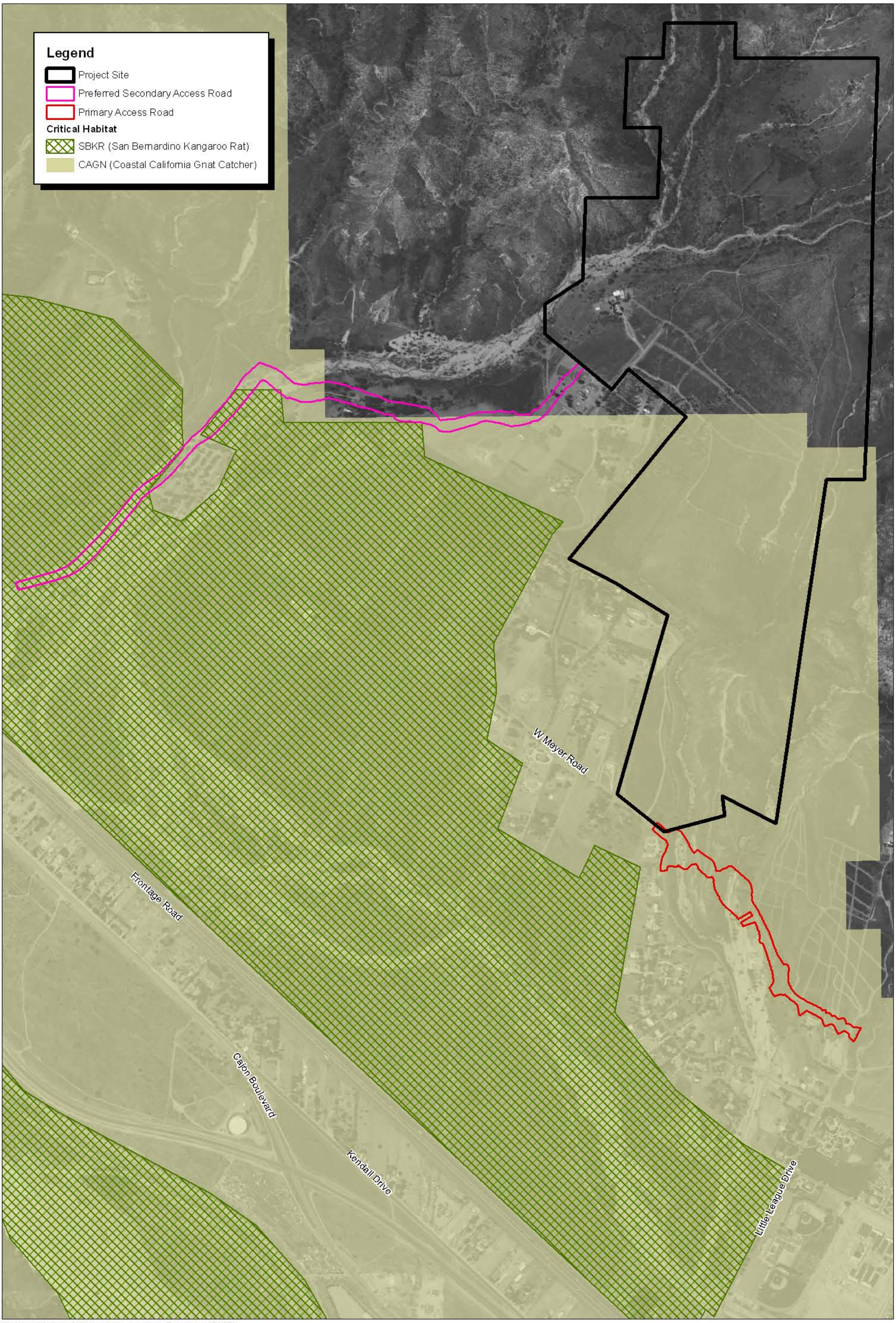
Mountain Yellow-legged Frog. The perennial stream in Cable Creek provides suitable habitat for this species; however, focused surveys in 2007 were negative.

Arroyo Southwestern Toad. The perennial stream in Cable Creek provides suitable habitat for this species; however, focused surveys in 2007 were negative.

Non-listed Sensitive Species. Of the 8 plant and 38 wildlife non-listed sensitive species identified in Appendix B, 2 plants—Plummer's mariposa lily and Parry's spineflower—have a moderate to high probability of occurring onsite. There are 24 wildlife species with a moderate to high potential to occur onsite. These species are: San Diego horned lizard, two-striped garter snake, San Bernardino ring-neck snake, San Diego banded gecko, California silvery legless lizard coastal western whiptail, rosy boa, coast patch-nosed snake, northern harrier (foraging), golden eagle (foraging), merlin (winter), sharp-shinned hawk, Cooper's hawk, white-tailed kite, ferruginous hawk (winter), Swainson's hawk (foraging), loggerhead shrike, southern California rufous-crowned sparrow, Bell's sage sparrow, yellow warbler, yellow-breasted chat, black-chinned sparrow, northwestern San Diego pocket mouse, Los Angeles pocket mouse, San Diego desert woodrat, and San Diego black-tailed jackrabbit.

3.5 - Critical Habitat

The proposed project site lies within designated Critical Habitat area for SBKR as well as CAGN. Exhibit 4 shows the boundaries of both Critical Habitat areas. Loss or adverse modification of Critical Habitat must be evaluated by federal agencies prior to authorizing or conducting a major federal action. It should also be noted that USFWS is re-evaluating both Critical Habitat designations and could modify these boundaries in the future.



Source: National Agriculture Imagery Program (2005).

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Michael Brandman Associates

Exhibit 4
SBKR & CAGN Critical Habitat

SECTION 4: IMPACTS AND RECOMMENDATIONS

4.1 - Special Interest Plant Communities

The various riparian plant communities found on the project site are considered sensitive plant communities by CDFG, USFWS and CNPS. These include RAFSS, sycamore alluvial woodland, southern sycamore-alder riparian woodland, southern willow scrub, and California walnut woodland. In addition, the RSS found onsite is considered a sensitive plant community.

Of the 165.4 acres of RSS existing onsite, impacts include the removal of approximately TBD acres. This would typically be considered a significant adverse impact because it is a substantial effect on a sensitive habitat, the community is declining throughout the region, under most circumstances, it represents valuable wildlife habitat, and it is a CDFG highest inventory priority community. However, the RSS, which is distributed throughout the central portion of the property, has a history of disturbance. Up until 1989, most of the areas supporting sage scrub were dryland farmed or grazed. Today, evidence of past disturbances includes the predominance of human-mediated (clearing) and fire disturbance (either natural or man made). Loss of this disturbed RSS habitat would be considered adverse but a less than significant impact.

Project implementation would also result in the removal of one acre of California walnut woodland, one acre of southern willow scrub, 6 acres of southern willow scrub-California walnut woodland, and two acres of sycamore alluvial woodland communities. Loss of these riparian plant communities may be considered a significant impact without mitigation. Mitigation for these losses will be developed as part of the wetlands permitting process (see Section 4.5).

Recommendations: Although the riparian plant communities will be avoided, these plant communities are associated with jurisdictional waters. Impacts to these plant communities will require wetland permits from the USACE, CDFG and RWQCB. These three agencies will require an appropriate level of mitigation to offset any identified impact.

4.2 - Sensitive Plant Species

Focused surveys for Nevin's barberry, slender-horned spineflower and Santa Ana River woollystar in 2007 did not identify any of these federally listed plant species onsite or within the vicinity of the proposed access roads. Several non-listed, several sensitive species have a low to moderate potential to occur but were not identified during the focused surveys. Impacts to most sensitive plant species were deemed not significant due to their low likelihood of occurrence, marginal or complete lack of habitat, their expected low numbers, the dedication of open space, the implementation of a RMP, and relative abundance of the species on a regional scale.

Recommendations: No further surveys and/or mitigation are required.

4.3 - Sensitive Wildlife Species

4.3.1 - Listed Species

Focused surveys for California gnatcatcher, southwestern willow flycatcher, least Bell's vireo, mountain yellow-legged frog and Arroyo toad in 2007 did not identify any of these federally and/or State listed wildlife species onsite or within the vicinity of the proposed access roads. Several raptors, all of which are sensitive, were either observed or have a moderate to high likelihood of occurring on the site. These are the northern harrier, golden eagle, sharp-shinned hawk and Cooper's hawk. The proposed development would retain all of the southern sycamore alder riparian woodland as open space allowing for nesting and foraging of these species.

Sensitive raptors which would be most affected by the project are those that use the sage scrub and ridge tops for foraging. For individuals of these species that use the site, the proposed development would result in the loss of approximately 150 acres of foraging habitat. This loss is not considered to be regionally significant.

Sensitive birds that use RSS, chaparral, and grasslands have the potential to be impacted by the project through a loss of habitat. These species include the southern California rufous-crowned sparrow, loggerhead shrike, and Bell's sage sparrow. These species are not listed as threatened or endangered and any loss of individuals would not threaten the regional population. Removal of their habitat is an adverse but less than significant impact.

Recommendations: No further surveys and/or mitigation are required.

4.3.2 - Nesting Birds

Eucalyptus, pepper trees, willows, and palms provide foraging, roosting, and nesting habitat for raptors, such as hawks and owls, among other resident and migratory bird species. Under Sections 3503 and 3503.5 of the California Fish and Game Code (Code) and the federal Migratory Bird Treat Act (MBTA), it is unlawful to take, possess, or needlessly destroy any bird of prey or the nests or eggs of any bird species. Disturbance of any active bird nest during the breeding season, including active owl burrows, would be prohibited by law. Breeding season typically runs from March through late June. Disturbing or destroying active nests is a violation of the MBTA.

Recommendations: To avoid impacts to nesting birds, it is recommended to remove vegetation outside of the nesting season, which is typically between mid-January and August 31. If construction activities take place during the nesting season, it is recommended that a survey be conducted to determine the presence or absence of nesting raptors within the project area. If the survey concludes that there is an active nest(s) within the project area, prevention measures (i.e., buffer zone around nesting area(s) will be needed to avoid "take" of the nesting species and its nest.

4.3.3 - Jurisdictional Waters and Riparian Habitats

The project would impact both Cable Creek and Meyers Creek through construction of bridges or at grade roads that would cross these riparian corridors. Proposed hiking trails on-site would cross the creeks in four to five locations. Two small seeps would also be filled through construction of this project.

The onsite potential impacts from this project would be two road crossings of Cable Creek, one crossing of Meyers Creek and four or five crossings associated with the hiking trail system, and placement of fill into two small seep areas with associated riparian habitat. Off-site the primary access road would cross Meyers Creek and an unnamed drainage. The secondary access road would cross Cable Creek.

A formal delineation was conducted in 2007 and is available under separate cover. As currently designed, the proposed project could impact eliminate one acre of wetlands and approximately 14 acres of additional riparian or alluvial habitat. Both USACE and CDFG policy require avoidance of loss of wetlands and replacement if complete avoidance is not possible.

Recommendations: Impacts to jurisdictional waters and riparian habitats will require the acquisition of the appropriate wetland permits from the USACE, CDFG, and RWQCB.

4.3.4 - Wildlife Movement within the Study Area

The project site is likely used by wildlife species as a movement corridor. The location of the site adjacent to the San Bernardino National Forest and other undeveloped land, allows easy access for many large mammal species. There are no physical barriers surrounding the site other than sparse residential development along the lower western and southern edge of the site. Adjacent properties to the east, north, and west are part of the much larger natural open space of the National Forest and mostly undeveloped. This expanse of undisturbed open space surrounding much of the site is conducive to wildlife traveling throughout the study area. During the 2007 surveys, large numbers of mule deer (up to 10) were often observed foraging within the central portion of the site.

The canyons and drainages found at the western and eastern ends of the project site are corridors for wildlife movement. A drainage associated with Meyers Creek runs parallel along the eastern border then turns to cross the center point of the southern border. Another drainage crosses the tip of the southeast corner of the site, and an alluvial wash crosses the site in a southwesterly direction before eventually merging with Cable Creek Wash. The most valuable wildlife movement corridor onsite, however, is Cable Canyon along the westerly boundary of the site. This canyon begins off-site above the northwest portion of the site as the east and west forks of Cable Creek merge and eventually turn west and off the project site toward the community of Devore. Cable canyon is wider than the others, has a year-round flowing creek, offers extensive cover and foraging habitat, and provides a link between higher and lower elevation communities. Each of these features provides a linear passageway across the site.

Recommendation: It is likely that project development will impact wildlife movement by larger mammals across the property but wildlife would continue to be able to use the washes associated with Cable Canyon and Meyers Creek for movement. Impacts to mid-size and smaller mammals should be negligible with the use of box culverts at these drainages.

The project should be designed to recognize and preserve wildlife movement across the site, particularly corridors associated with Cable Canyon and Meyers Creek. The integrity and functionality of each wildlife movement corridor should be protected. The most valuable wildlife movement corridor onsite is Cable Canyon. This canyon and creek would be generally avoided and left in its natural state. Disturbance would be limited to development of up to three resting/staging areas. Development would be minimal and would likely be limited to brush clearing and posting of signage.

4.3.5 - Adopted Habitat Conservation Plans

The site does not lie within any adopted habitat conservation plan areas. Thus, there will be no constraints to the project due to any adopted habitat conservation plans as a result of the proposed project.

SECTION 5: MITIGATION MEASURES

Mitigation Measure BIO-1

Impacts to Cable and Meyers Creek will require wetland permits (404, 401 and 1602). Mitigation for impacts to these two creeks include the restoration and/or enhancement of the creeks onsite, creation of wetland habitat on or off the project site, or payment into an approved mitigation bank at a ratio determined through the permitting process. All three wetland permitting agencies (USACE, CDFG and the RWQCB) must review and approve the proposed permit conditions, as developed in a Habitat Mitigation Monitoring Plan (HMMP) that will be integrated into this RMP.

Mitigation Measure BIO-2

To avoid impacts to nesting birds, it is recommended to remove vegetation outside of the nesting season, which is typically between mid-January and August 31. If construction activities take place during the nesting season, it is recommended that a survey be conducted to determine the presence or absence of nesting raptors within the project area. If the survey concludes that there is an active nest(s) within the project area, prevention measures (i.e., buffer zone around nesting area(s) will be needed to avoid "take" of the nesting species and its nest.

Mitigation Measure BIO 3

The project will be designed to recognize and preserve wildlife movement across the site, particularly corridors associated with Cable Canyon and Meyers Creek. The integrity and functionality of each wildlife movement corridor will be preserved.

SECTION 6: REFERENCES

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Appendix A: Plant and Animal Species Observed Onsite

Table A-1: Potential Sensitive Plant Species Onsite*

Plant Species	Status Fed/State/CNPS	Observed Onsite	Likelihood of Occurrence
Nevin's barberry *(Berberis nevinii)*	FE/SE/1B	No	Very low as species is easily observed
Slender-horned-spineflower *(Dodecahema leptoceras)*	FE/SE/1B	No	Low-moderate suitable habitat in Cable Creek
Santa Ana River woolleystar *(Eriastrum densifolium* ssp. *sanctorum)*	FE/SE/IB	No	Low-moderate suitable habitat in Cable Creek
Marsh sandwort *(Arenaria paludicola)*	FE/SE/1B	No	None, no suitable habitat
Thread-leaved brodiaea *(Brodiaea filifolia)*	FT/SE/1B	No	None, no suitable habitat
Orcutt's brodiaea *(Brodiaea orcutti)*	None/None/1B	No	None, well outside of its geographic range; no suitable habitat
Plummer's mariposa lily (*Calochortus plummerae)*	None/None/1B	No	Expected to occur onsite; suitable habitat throughout site
Parry's spineflower *(Chorizanthe parryi var. parryi)*	None/None/3	No	Expected to occur onsite; suitable habitat throughout site
Many-stemmed dudleya *(Dudleya multicaulis)*	None/None/1B	No	None, well outside of its geographic range; no suitable habitat
San Bernardino Mountain owl's-clover (*Castilleja lasiorhyncha)*	None/None/1B	No	None, well below elevation range
Hot springs fimbristylis *(fimbristylis thermalis)*	None/None/2	No	None, no suitable habitat
Smooth tarplant *(Centrodadia pungens* ssp. *laevis)*	None/None/1B	No	Unlikely, marginal habitat and at the margin of its geographic range
Parish's gooseberry *(Ribes divaricatum* var. *parishii)*	None/None/1B	No	Very low likelihood, plant is probably extinct

Source: "Biological Resources Assessment and Report for Martin Ranch", PCR February 1999, subsequent biological resources assessment and report, White and Leatherman Bioservices, 2002.

*Includes secondary access route.

Federal (USFWS)
FE Federally listed, endangered
FT Federally listed, threatened
FPE Federally proposed endangered
FPT Federally proposed threatened
FC Candidate species. Sufficient data are on file to support the federal listing.
FSC Federal species of concern (former C2 and C3 species)

State (CDFG)
SE State listed, endangered
ST State listed, threatened
SCE State candidate endangered
SCT State candidate threatened
SFP State fully protected
SP State protected
CSC California species of special concern

California Native Plant Society (CNPS) List
List 1A: Plants presumed extinct in California.
List 1B: Plants rare, threatened or endangered in California and elsewhere.
List 2: Plants rare, threatened or endangered in California, but more common elsewhere.
List 3: Plants about which we need more information- a review list.
List 4: Plants of limited distribution - a watch list.

Table A-2: Potential Sensitive Wildlife Species Onsite*

Species	Status Fed/State	Observed Onsite	Likelihood of Occurrence
Endangered or Threatened			
Arroyo southwestern toad *(Bufo californicus)*	FE/CSC	No	Moderate suitable habitat in Cable Creek
California red-legged frog *(Rana aurora draytonii)*	FE/CSC	No	Absent, lack of suitable habitat
Mountain yellow-legged frog *(Rana muscosa)*	FEC/CSC	No	Moderate suitable habitat in Cable Creek
Southern rubber boa *(Charina bottae umbratica)*	None/ST	No	Absent, site is below the elevation range of this species
Southwestern willow flycatcher *(Empidonax traillii extimus)*	FE/SE	No	Moderate, focused surveys found none.
Coastal California gnatcatcher (*Polioptila californica californica)*	FT/CSC	No	Moderate, focused surveys found none.
San Bernardino kangaroo rat (*Dipodomys merriami parvus*)	FE/CSC	No	Low-Moderate, focused surveys found none.
Least Bell's vireo *(Vireo bellii pusillus)*	FE/SE	No	Absent, focused surveys found none.
Santa Ana Sucker (*Catostomus santaanae*)	FT/CSC	No	Low potential for minimal indirect impacts to stream/no direct impact to aquatic habitat
Sensitive Species			
Western spadefoot toad *(Scaphiopus hammondii)*	FSC/CSC	No	Low likelihood, no suitable habitat
Southwestern pond turtle *(Clemmys marmorata pallida)*	FSC/CSC	No	Low likelihood, no suitable habitat
Orange-throated whiptail *(Cnemidophorus hyperythrus beldingi)*	FSC/CSC	No	Very low, outside of known range
San Diego horned lizard *(Phrynosoma coronatum blainvillei)*	FSC/CSC	Yes	Observed onsite
Two-striped garter snake *(Thamnophis hammondii)*	FSC/CSC	No	High likelihood of occurrence
San Bernardino ring-neck snake *(Diadophis punctatus modestus)*	FSC/None	No	High likelihood of occurrence
San Diego banded gecko (*coleonyx variegatus abbotti*)	None/CSC	No	Moderate to high potential on slopes and floodplain
California silvery legless lizard (*Anniella pulchra pulchra*)	FS/CSC	No	High likelihood of occurrence
San Diego horned lizard (*Phrynosoma coronatum blainvillei*)	FS/CSC	No	High likelihood of occurrence

Table A-2: Potential Sensitive Wildlife Species Onsite (Continued)

Species	Status Fed/State	Observed Onsite	Likelihood of Occurrence
Coastal Western Whiptail (*Aspidoscelis tigris stejnegeri*)	None/CSC	No	High likelihood of occurrence
Rosy boa (*charina trivirgata*)	FS/CSC	No	Moderate to high potential to occur due to suitable habitat throughout
Coast patch-nosed snake (*Salvadora hexalepis virgultea*)	None/CSC	No	Moderate to high potential to occur due to suitable habitat throughout
Northern harrier *(Circus cyaneus)*	None/CSC	No	High likelihood of occurrence (foraging only)
Golden eagle *(Aquila chrysaetos)*	None/CSC	No	Likely (foraging only)
Ferruginous hawk (*Buteo regalis*)	None/CSC	No	High likelihood of occurrence (foraging only)
Swainson's hawk (*Buteo swainsonii*)	None/S2 THR	No	Moderate likelihood of occurrence (foraging only)
Merlin *(Falco columbarius)*	None/CSC	No	Likely in winter
Sharp-shined hawk *(Accipiter striatus)*	None/CSC	Yes	Observed onsite
Cooper's hawk *(Accipiter cooperii)*	None/CSC	No	High likelihood of occurrence due to relative abundance in region and suitable woodland habitat
Prairie falcon *(Falco mexicanus)*	FSC/CSC	No	Low likelihood, potential for foraging
White-tailed kite (*Elanus leucurus*)	None/SFP	No	High likelihood due to presence of suitable habitat
Burrowing owl *(Athene cunicularia)*	FSC/CSC	No	Low likelihood due to lack of grassland habitat
California horned lark *(Eremophila alpestris actia)*	None/CSC	No	Low likelihood due to lack of grassland habitat
Loggerhead shrike *(Lanius ludovicianus)*	FSC/CSC	No	High likelihood of occurrence
Southern California rufous-crowned sparrow *(Aimophilia ruficeps canescens)*	None/CSC	Yes	Observed onsite
Bell's sage sparrow *(Amphispiza belli belli)*	FSC/CSC	Yes	Observed onsite
Yellow warbler *(Dendroica petechia brewsteri)*	None/CSC	No	High likelihood of occurrence in riparian habitat
Yellow-breasted chat *(Icteria virens)*	None/CSC	No	High likelihood of occurrence in riparian habitat

Table A-2: Potential Sensitive Wildlife Species Onsite (Continued)

Species	Status Fed/State	Observed Onsite	Likelihood of Occurrence
Tricolored blackbird *(Agelaius tricolor)*	FSC/CSC	No	Low likelihood, No suitable habitat and no local occurrence
Grasshopper sparrow (*Ammodramus savannarum*)	None/CSC	No	Low likelihood for nesting; high likelihood for migration
Black-chinned sparrow (*spizella passerina*)	FSC/CSC	No	High likelihood of occurrence
Northwestern San Diego pocket mouse *(Chaetodipus fallax fallax)*	None/CSC	Yes	Trapped onsite
Los Angeles pocket mouse *(Perognathus longimembris brevinasus)*	FSC/CSC	Yes	Trapped onsite
White-eared pocket mouse *(Perognathus alticola alticola)*	FSC/CSC	No	Absent. Presumed extinct. Well below elevation range. No suitable habitat.
Southern grasshopper mouse *(Onychomys torridus ramona)*	None/CSC	No	Not expected due to trapping results, lack of suitable habitat
San Diego desert woodrat *(Neotoma lepida intermedia)*	None/CSC	Yes	Trapped onsite
Pocketed free-tailed bat *(Nyctinomops femorosaccus)*	None/CSC	No	Very low, outside of known range
Western mastiff bat *(Eumops perotis)*	FSC/CSC	No	Very low due to its rarity
San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)	None/CSC	No	High likelihood of occurrence

Source: "Biological Resources Assessment and Report for Martin Ranch", PCR February 1999, subsequent biological resources assessment and report, White and Leatherman Bioservices, 2002.
*Includes secondary access route.

Federal (USFWS)
FE Federally listed, endangered
FT Federally listed, threatened
FPE Federally proposed endangered
FPT Federally proposed threatened
FC Candidate species. Sufficient data are on file to support the federal listing.
FSC Federal species of concern (former C2 and C3 species)
FS Federally sensitive

State (CDFG)
SE State listed, endangered
ST State listed, threatened
SCE State candidate endangered
SCT State candidate threatened
SFP State fully protected
SP State protected
CSC California species of special concern

Appendix B: Sensitive Species Summary

HABITAT ASSESSMENT UPDATE FOR MARTIN RANCH DEVORE, SAN BERNARDINO COUNTY, CALIFORNIA

SUMMARY

Michael Brandman Associates (MBA) conducted a habitat assessment update for the 353-acre Martin Ranch project in unincorporated San Bernardino County.

The habitat assessment was needed to determine if site conditions have changed since the latest studies were conducted. In addition, the project has two proposed roads that were not identified in the previous EIR and, therefore, need to be assessed for potential impacts to sensitive biological resources.

MBA biologist Marnie McKernan conducted the habitat assessment on December 15, 2006. Weather conditions were good, with clear skies and temperatures in the high 60s (degrees Fahrenheit).

The vegetation map prepared by Lilburn Corporation was used during the assessment to verify accuracy and make changes if necessary. All four access roads were mapped for vegetation as they had not been done for the previous EIR. The following are some of the constraints associated with the development of the proposed project and associated proposed access roads.

Martin Ranch

The proposed Martin Ranch Development is a 353-acre property located on the foothills of San Bernardino in the Community of Verdemont, San Bernardino County. The property is relatively undisturbed and consists of canyons and steep hillsides with gently sloping benches in between. The east and west fork of Cable Creek flow through the northwest portion of the property. A tributary to Cable Creek cuts across the northern section of the property from east to west. The elevation of the property ranches from 2,062 feet above mean sea level (MSL) in the southern portion of the site to 3,400 feet above MSL in the northern portion.

The San Bernardino National Forest borders the property on north, east and west. Residential development borders the site to the south.

The project site contains thirteen different plant communities many of which are considered sensitive by CDFG. The following are the sensitive plant communities found onsite and the potential sensitive species they support.

Riversidean Sage Scrub (RSS). This plant community is located in the central portion of the project site and has the largest area within the project boundaries. RSS plant community is considered a sensitive plant community by CDFG. This plant community was burned during the wildfires in 2003 virtually removing all aboveground biomass. The vegetation on site has since recovered from the burn and is in a pioneer to intermediate stage of succession. Some of the potential sensitive wildlife species that can be found within this habitat include coastal California gnatcatcher, southern rufous-crowned sparrow, Bell's sage sparrow, loggerhead shrike and coast horned lizard. In addition, this vegetation community serves a foraging habitat for many raptor species including, red-tailed hawk, northern harrier, golden eagle, prairie falcon, sharp-shinned hawk, white-tailed kite and Cooper's hawk.

Southern Sycamore-Alder Riparian Woodland, Southern Willow Scrub, Southern Willow Scrub/California Walnut Woodland. These three riparian communities have the potential to support several sensitive avian species including, least Bell's vireo, southwestern willow flycatcher, yellow warbler, and yellow-breasted chat. These riparian habitats occur along the perennial Cable Creek and may also support sensitive reptiles and amphibians including; two-striped garter snake, mountain yellow-legged frog, western spadefoot toad, and arroyo southwestern toad.

Riversidean Alluvial Fan Sage Scrub. This plant community is located at the lower reaches of Cable Creek and Meyer Canyon Creek. The RAFSS community onsite has the potential to support several sensitive mammal species including San Bernardino kangaroo rat, Los Angeles pocket mouse, San Diego pocket mouse, and San Diego desert woodrat. There are several sensitive plant species with potential to occur within the RAFSS habitat. These are, slender-horned spineflower, Santa Ana River woollystar, and Parry's spineflower.

Secondary Alternative Access Roads

The two proposed secondary alternative access roads at the north end of the project site labeled A and B will both have crossings over Cable Creek. Alternatives A and B are proposed crossing Cable Creek at a point where the stream is perennial and where pools are present. These areas have been determined to be potentially suitable for sensitive amphibian species including, southwestern arroyo toad, western toad, and mountain yellow-legged frog.

The creek within the road boundaries contains southern willow scrub and southern sycamore/alder riparian woodland habitat. These plant communities are considered sensitive by CDFG. These vegetation communities are suitable to support two sensitive songbird species; least Bell's vireo (State and Federal Endangered) and southwestern willow flycatcher (Federal Endangered).

Secondary Access Road

The secondary access road is proposed to cross Cable Creek down stream of the two secondary alternatives. The area of proposed crossing is located where the wash is wide and shallow and water is no longer perennial. The wash contains Riversidean alluvial fan sage scrub (RAFSS) habitat which is considered a sensitive plant community by CDFG. In addition, this area is within the Federal Designated Critical Habitat for the Federal Endangered San Bernardino kangaroo rat (SBKR). A recent study (MBA 2004) identified this area as occupied by SBKR.

Primary Access Road

The primary access road is proposed to cross two drainages, tributaries of Cable Creek. The area where the road is proposed for crossing contains RAFSS habitat. This habitat is moderately suitable for SBKR.

Focused surveys were conducted for many of the above listed sensitive species on the proposed Martin Ranch project site. All surveys were negative. As the access roads were not studied previously these areas need to be surveyed for potential sensitive species as well. Since focused surveys are valid for one year it is recommended that the previous surveys be updated.

Current focused surveys for the following species will be needed to adequately address any challenge to the EIR:

- CAGN Surveys;
- SBKR Trapping;
- Mountain Yellow-legged Frog Surveys;
- Arroyo Southwestern Toad Surveys;
- Least Bell's Vireo Surveys;
- Southwestern Willow Flycatcher Surveys; and
- Plant Surveys.

Appendix C: Site Photographs

Photo 1: California walnut woodland

Photo 2: Ceonothus crassifolius chaparral

Photo 3: Chamise chaparral

Photo 4: Canyon live oak woodland

Photo 5: Eucalyptus woodland

Photo 6: Non-native grassland

Photo 7: Northern mixed chaparral at north end of site

Photo 8: Riversidean sage scrub (RSS) in the northern end of the project site

Photo 9: Riversidean alluvial fan sage scrub (RAFSS) along Cable Creek at the western edge of site

Photo 10: Sycamore-alder riparian woodland in Cable Creek

Photo 11: Southern willow scrub in Cable Creek

Photo 12: Southern willow scrub/walnut woodland

Photo 13: Sycamore alluvial woodland