

**Biological Resources Study  
Eum's Commercial Development  
Community of Oak Hills, San Bernardino County  
California**

USGS 7.5-minute Topographic Quadrangle Map  
Section 18 of Township 4 North, Range 5 West

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## SECTION 1: SUMMARY

Michael Brandman Associates (MBA) conducted a biological resources study to document the existing biological conditions within a 2.36-acre property, hereafter referred to as project site or site, located in the unincorporated community of Oak Hills, San Bernardino County, California. The entire property is proposed for development into a mix-use commercial property. The Assessor's Parcel Number (APN) for the project site is: 3064-041-02, and the project is being processed by the County of San Bernardino as Project No.: P201200202. This report has been prepared under the direct supervision of a San Bernardino County-approved biological consultant, Scott Crawford.

This biological resources study also includes a habitat assessment for Mohave ground squirrel (*Xerospermophilus mohavensis*) as requested by the County of San Bernardino. The project site does not contain suitable habitat for Mohave ground squirrel and based on the existing conditions onsite and surrounding the project site, there is no potential for this species to occur onsite.

The project site contains moderately suitable habitat for loggerhead shrike (*Lanius ludovicianus*), and moderately suitable foraging habitat for burrowing owl (*Athene cunicularia*), which are both California species of special concern. The site does not contain suitable nesting habitat for burrowing owl because of the lack of suitable burrows on and within a 500-foot buffer around the site. However, due to the potential foraging habitat onsite, a pre-construction clearance survey will be required for burrowing owl within 14 days prior to project initiation. Additionally, due to the presence of suitable nesting habitat for loggerhead shrike and other nesting birds, a 14-day pre-construction clearance survey will be required if construction activities commence during the avian breeding season from February through August.

The project site contains no potentially jurisdictional waters of the United States (US) or State. No potentially jurisdictional waters will be impacted as a result of construction of the proposed project. Additionally, no wetlands or riparian areas occur within or adjacent to the project site.

The site does not contain any wildlife movement corridor features. The project site occurs within an unincorporated area of the County of San Bernardino, and therefore must adhere to the guidelines outlined in the County of San Bernardino Development Code (2007).

## **SECTION 2: INTRODUCTION**

At the request of MK Design, MBA conducted a Biological Resources Study to document the existing conditions within an approximate 2.36-acre project site, located in the unincorporated community of Oak Hills, San Bernardino County, California. This report provides a detailed description of existing conditions. The information contained herein is intended to provide a baseline for which subsequent evaluations can be made of potential biological resource impacts associated with future projects. These impacts will be based upon the environmental policies and regulations discussed in Appendix C, Regulatory Framework, including the Clean Water Act (CWA), the Federal Endangered Species Act (ESA), the California Endangered Species Act (CESA), and California Environmental Quality Act (CEQA).

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### **2.1 - Project Site Location**

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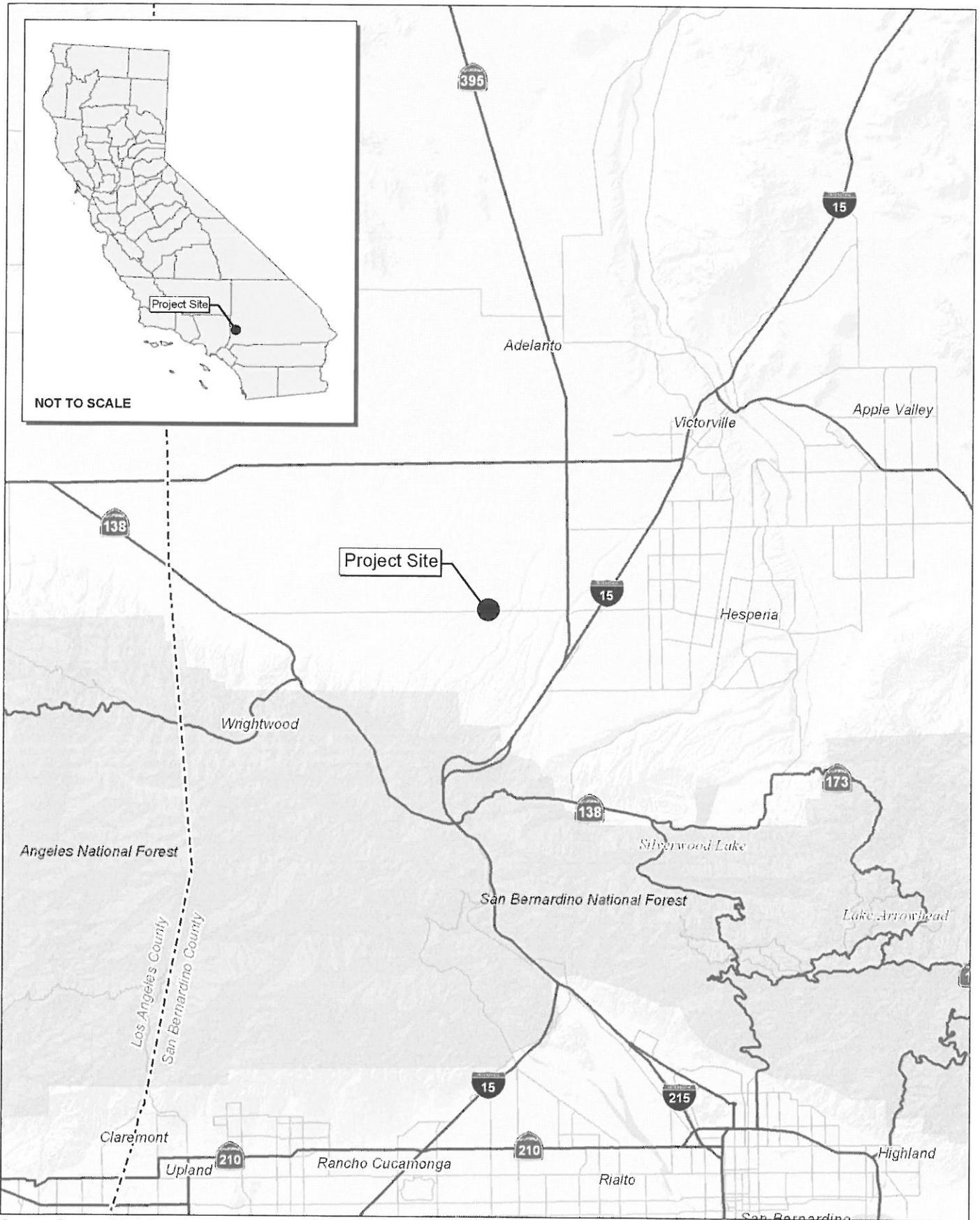
The project site is located north and east of State Route (SR) 138 and west of Interstate (I) 15 (Exhibit 1). It can be found on the Baldy Mesa, California United States Geological Survey (USGS) 7.5-minute topographic quadrangle map, Section 18 of Township 4 North, Range 5 West (Exhibit 2). The site is specifically located within a rectangular-shaped parcel at the northeast corner of the intersection of Baldy Mesa Road and Phelan Road (Exhibit 3).

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### **2.2 - Project Description**

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The proposed project consists of developing the approximate 2.36-acre property into a multi-use commercial development. The project involves construction of an approximate 23,300-square foot multi-building commercial center comprised of a fast-food restaurant, various retail/general office structures and associated parking. The site plan included as Exhibit 4 details the various uses onsite.



Source: Census 2000 Data, The CaSIL, MBA GIS 2012.

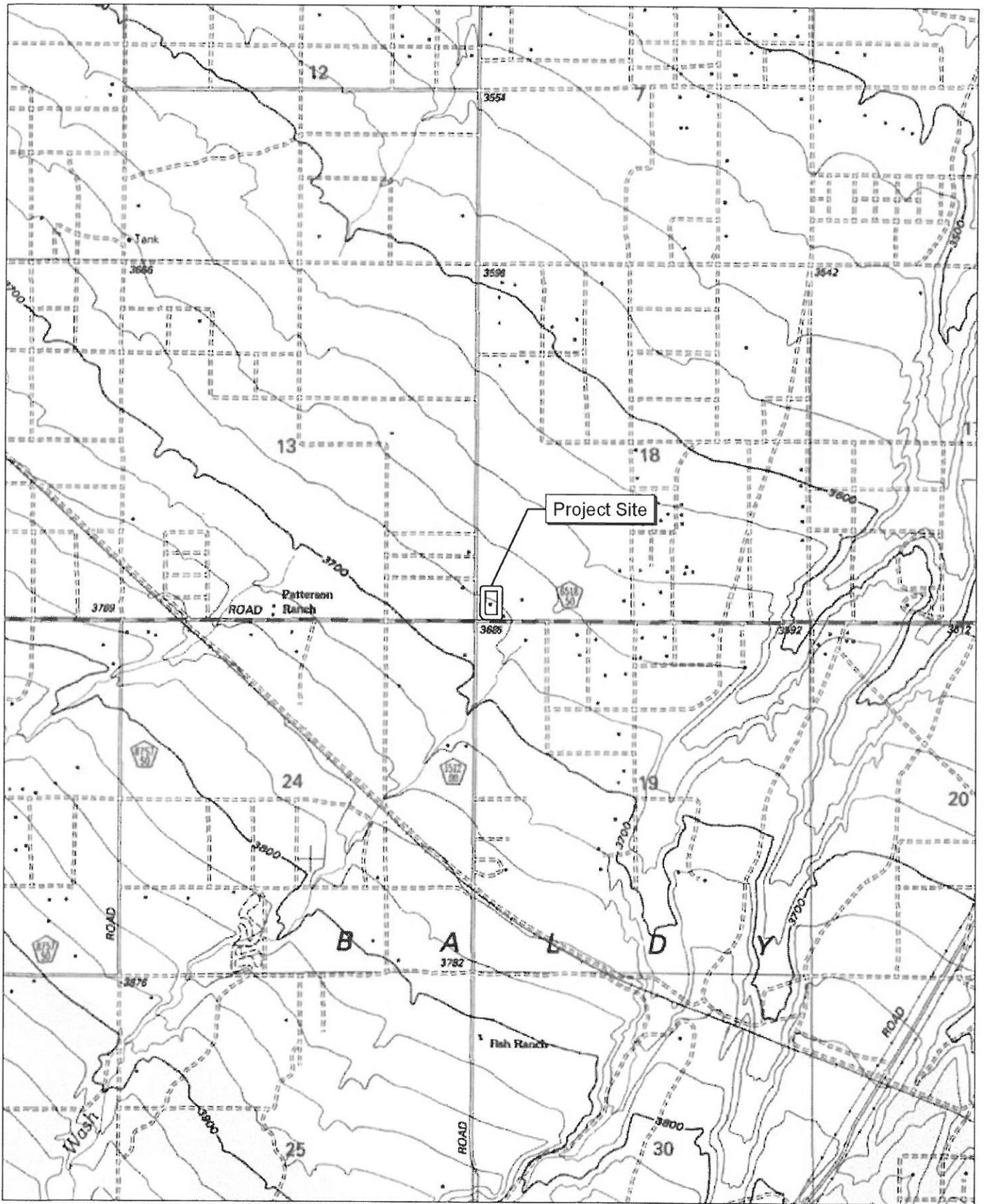


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## Exhibit 1 Regional Location Map

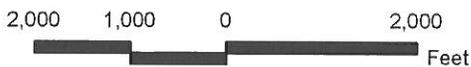
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BIOLOGICAL RESOURCES STUDY



Source: TOPOI USGS Baldy Mesa, CA (1996) 7.5' DRG.



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## Exhibit 2 Local Vicinity Map Topographic Base



Source: ESRI Aerial Imagery.

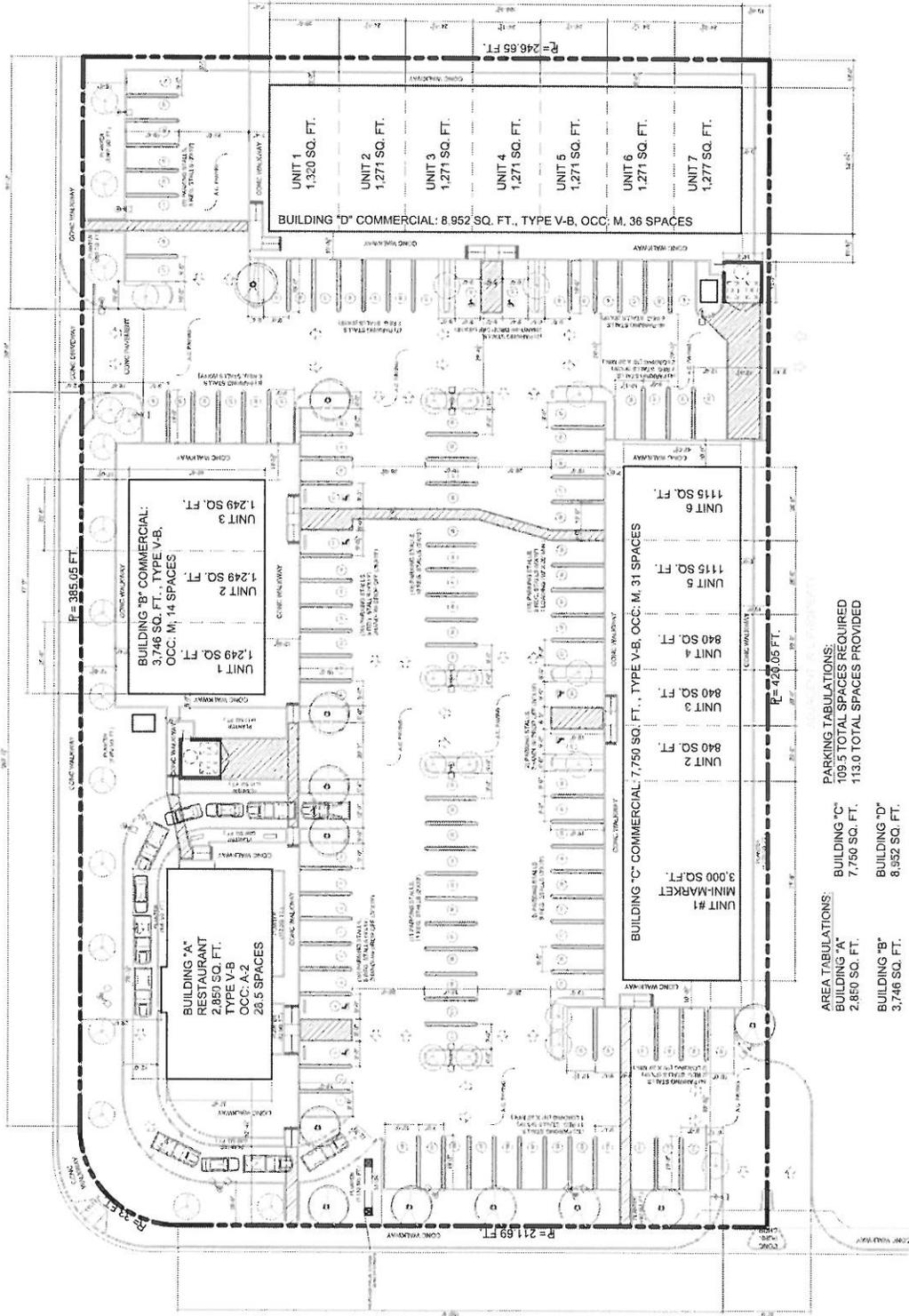


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### Exhibit 3 Local Vicinity Map Aerial Base

BALDY MESA ROAD



AREA TABULATIONS:

BUILDING "A"	2,850 SQ. FT.
BUILDING "B"	3,746 SQ. FT.
BUILDING "C"	7,750 SQ. FT.
BUILDING "D"	8,952 SQ. FT.
<b>TOTAL</b>	<b>23,298 SQ. FT.</b>

PARKING TABULATIONS:

BUILDING "A"	109.5 TOTAL SPACES REQUIRED
BUILDING "B"	113.0 TOTAL SPACES PROVIDED

PHELAN ROAD

Source: MK Design, July 2012.



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## Exhibit 4 Site Plan

## SECTION 3: METHODOLOGY

Analysis of the biological resources associated with the project site began with a thorough review of relevant literature followed by a reconnaissance-level field survey. The primary objective of the survey is to document existing site conditions and determine the potential presence of sensitive biological resources.

For the purpose of this report, sensitive species refers to all species formally listed as threatened and/or endangered under the ESA and CESA, California Species of Special Concern, designated as Fully Protected by California Department of Fish and Game (CDFG); given a status of 1A, 1B, or 2 by the California Native Plant Society (CNPS); or designated as sensitive by City, County, or other regional planning documents. Federal and state listed threatened and/or endangered species are legally protected under the ESA and/or CESA. The remaining species mentioned have no direct legal protection, but require a significance analysis under CEQA Guidelines.

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### 3.1 - Literature Review

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The literature review provides a baseline from which to evaluate the biological resources potentially occurring on the project site, as well as the surrounding area.

#### 3.1.1 - Existing Environmental Documentation

As part of the literature review, MBA examined existing environmental documentation for the project site and local vicinity. This documentation included literature pertaining to habitat requirements of special status species potentially occurring in the vicinity of the site, as well as federal register listings, protocols, and species data provided by the United States Fish and Wildlife Service (USFWS) and CDFG. These and other documents are listed in Section 7, References.

#### 3.1.2 - Topographic Maps and Aerial Photographs

MBA reviewed current USGS 7.5-minute topographic quadrangle map(s) and aerial photographs as a preliminary analysis of the existing conditions within the project site and immediate vicinity. Information obtained from the review of the topographic maps included elevation range, general watershed information, and potential drainage feature locations. Aerial photographs provide an aerial perspective of the most current site conditions with regard to on-site and off-site land-use, plant community locations, and potential locations of wildlife movement corridors.

#### 3.1.3 - Soil Surveys

Many sensitive plant species have a limited distribution based exclusively on soil type. The United States Department of Agriculture (USDA) has published soil surveys that describe the soil series that occur within a particular area. A soil series is a group of soils with similar profiles. These profiles include major horizons with similar thickness, arrangement, and other important characteristics. These series are further subdivided into soil mapping units, which provide specific information

regarding soil characteristics. Pertinent USDA soil survey maps were reviewed to determine the existing soil mapping units within the project site and to establish if soil conditions onsite are suitable for any sensitive plant species.

### **3.1.4 - Sensitive Species Database Search**

MBA compiled a list of threatened, endangered, and otherwise sensitive species previously recorded to occur near the project site. The list was based on a search of the CDFG's California Natural Diversity Database (CNDDDB), a sensitive species and plant community account database and the CNPS's Electronic Inventory of Rare and Endangered Vascular Plants of California database for the USGS 7.5-minute topographic quadrangle maps containing the project site and immediate vicinity.

The CNDDDB GIS database along with ArcGIS software was used to determine the distance between known recorded occurrences of sensitive species and the project site.

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## **3.2 - Reconnaissance-Level Field Survey**

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MBA biologist Tommy Molioo conducted the reconnaissance-level field survey on August 16, 2012. Special attention was paid to sensitive habitats or those areas potentially supporting sensitive floral and faunal species.

The reconnaissance-level survey was conducted on foot during daylight hours. The object of the survey was not to extensively search for every species occurring within the project site, but to ascertain general site conditions and identify potentially suitable habitat areas for various sensitive plant and wildlife species.

### **3.2.1 - Plant Community Mapping**

Plant communities were mapped using 7.5-minute USGS topographic base maps and recent aerial photography. Sensitive or unusual biological resources identified during the literature review were ground-truthed during the reconnaissance-level survey for mapping accuracy. The plant communities within the project site were classified according to Holland's "Preliminary Descriptions of the Terrestrial Natural Communities of California" (1986 and 1996 update) and cross-referenced with CDFG's List of Terrestrial Natural Communities (2003). Modifications were made by MBA's biologists where appropriate. Acreages for each plant community are included as part of the discussion's heading as well as in the discussion.

### **3.2.2 - Plant Species**

Common plant species observed during the reconnaissance-level survey were identified by visual characteristics and morphology in the field and recorded in a field notebook. Uncommon and less familiar plants were identified offsite using taxonomical guides. A list of all species observed on the project site was compiled from the survey data, shown in Appendix A, Floral and Faunal Compendia. Taxonomic nomenclature used in this study follows Hickman (1993). Common plant names, when

not available from Hickman (1993), were taken from other regionally specific references. In this report, scientific names are provided immediately following common names of plant species for the first reference only.

### **3.2.3 - Wildlife Species**

Wildlife species detected during the reconnaissance-level survey by sight, calls, tracks, scat, or other signs were recorded in a field notebook. Notations were made regarding suitable habitat for those sensitive species determined to potentially occur within the project site. Appropriate field guides were used to assist with species identification during surveys. Common names of wildlife species are standard; however, scientific names are provided immediately following common names for the first reference only. Appendix A lists all wildlife species observed or detected on the site during the survey.

### **3.2.4 - Jurisdictional Waters and Wetlands**

Prior to conducting the site visit, MBA's biologists reviewed USGS topographic maps and aerial photography to identify any potential natural drainage features and water bodies. In general, all surface drainage features indicated as blue-line streams on USGS maps and linear patches of vegetation expected to exhibit evidence of flows are considered potentially subject to state and federal regulatory authority as "waters of the US and/or state." The assessment was not intended as a formal delineation of waters of the US or State but rather to identify areas that may require a formal delineation.

### **3.2.5 - Wildlife Movement Corridors**

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat, separating different populations of a single species. Corridors effectively act as links between these populations.

The project site was evaluated for evidence of a wildlife movement corridor. However, the scope of the biological resources study did not include a formal wildlife movement corridor study using track plates, camera stations, scent stations, or snares. The focus of this study is to determine if the alteration of current land use on the site will have significant impacts on the regional movement of wildlife. These conclusions are based on the information compiled from the literature review, including, aerial photographs, USGS topographic maps, and resource maps for the vicinity, the field survey, and knowledge of desired topography and resource requirements for wildlife potentially utilizing the project site and vicinity.

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## **3.3 - Problems and Limitations**

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Many amphibians and mammals are secretive by nature and some are nocturnally active, making diurnal observations problematic. Observations of diagnostic sign may provide evidence of

occurrence of these species. Otherwise, conclusions regarding potential occurrence are based on consideration of habitat suitability factors.

Additionally, the survey was conducted in August, outside of the blooming period for many sensitive plant species known to occur in the area. Coupled with the very low amount of rainfall in the region in 2012, many plant species were no longer blooming and therefore difficult to detect.

## SECTION 4: EXISTING CONDITIONS

The reconnaissance-level field survey was conducted on August 16, 2012, between 1045 and 1200 hours. Weather conditions during the field survey included a temperature of 91 degrees Fahrenheit, with clear skies and winds between 2 and 5 miles per hour.

### 4.1 - Environmental Setting

The project site is comprised of an approximate 2.36-acre rectangular-shaped, partially developed parcel. The property currently contains a residential property surrounded by a barbwire fence. A majority of the project site is disturbed from development and the development onsite consists of the residential property and two shed-like structures. Baldy Mesa Road and Phelan Road delineate the western and southern boundary of the site, respectively. The eastern boundary abuts another residential property, and undeveloped land occurs to the north of the project site. Land use in the vicinity of the project site consists of rural residences and undeveloped land to the north, south, east, and west.

The vegetation within the project site primarily consists of disturbed bare ground and developed land, with scattered Mojave scrub vegetation. Non-native grasses and several ornamental trees are scattered throughout the property. The substrate onsite shows evidence of previous disturbance from construction of the residential property. The project site is separated from offsite undeveloped areas by paved roads and a barbwire fence.

#### 4.1.1 - Topographic Features

The project site is located within a relatively flat area with an altitude range of 3,685 to 3,690 feet above mean sea level (AMSL). The site occurs within the Baldy Mesa valley north of the San Gabriel Mountains. The surrounding topography consists of relatively flat land in all directions. No drainage features occur onsite, and no wetlands or waterways are located in the vicinity of the site.

#### 4.1.2 - Soils

Based on USDA soil survey information, the soils historically mapped on the project site consist of one soil mapping unit: Cajon sand, 0 to 2 percent slopes (Exhibit 5). Cajon soils consist of excessively drained soils formed in sandy alluvium from dominantly granitic rocks. These soils typically occur on alluvial fans, fan aprons, fan skirts, inset fans, and river terraces with slopes ranging from 0 to 15 percent. The observed soil onsite is significantly disturbed and altered from its natural state due to compaction from the previous construction of the residential property.

**Legend**

 Project Site

**Soil Classification**

 112 - CAJON SAND, 0 TO 2 PERCENT SLOPES



Source: ESRI Aerial Imagery, USDA Soils Data.



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**Exhibit 5  
Soils Map**

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## 4.2 - Plant Communities

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The plant communities and habitat types that occur within the project site consist of Mohave mixed woody scrub, disturbed habitat, and urban/developed (Exhibit 6). These communities will be permanently impacted as a result of construction of the proposed project. Further discussion of each plant community is included below. Representative photographs of the communities are in Appendix B, Site Photographs.

### 4.2.1 - Mojave Mixed Woody Scrub (34200)

Mojave mixed woody scrub consists of a complex scrub community, open enough to be passable, and usually characterized by Joshua tree (*Yucca brevifolia*), Eastern Mojave buckwheat (*Eriogonum fasciculatum* var. *polifolium*), and bladderpod (*Isomeris arborea arborea*). Most of the constituent species also occur in other nearby communities. This community typically occurs on very shallow, overly-drained, often rolling to steep soils, usually derived from granitic parent materials. These sites have extremely low water holding capacity, mild alkalinity, and are not very saline. This vegetation community is widely scattered along the eastern base of the Sierra Nevada from the southwestern Owens Valley southward along the Tehachapi, San Gabriel, San Bernardino, San Jacinto, and Peninsular ranges to northern Baja California. It typically occurs between 2000 to 5000 feet. Species typically observed within this community include, burro-weed (*Ambrosia dumosa*), saltbush (*Atriplex* spp.), Mojave bricklebrush (*Brickellia oblongifolia*), and Joshua tree (*Yucca brevifolia*).

The approximate 1.52-acres of Mojave mixed woody scrub habitat onsite is significantly disturbed and fragmented from higher quality habitat to the north due to the construction of the residential property. This habitat contains significant areas of bare ground and the natural native plant community has been significantly altered from its natural state. Ornamental trees, such as pine (*Pinus* sp.) and gum (*Eucalyptus* sp.) trees are also located interspersed throughout the Mojave mixed woody scrub. Dominant species observed within this community include interior goldenbush (*Ericameria linearifolia*), Joshua tree, and desert tea (*Ephedra californica*). Scattered big sagebrush (*Artemisia tridentata*) California juniper (*Juniperus californica*), creosote bush (*Larrea tridentata*), and four-winged saltbush (*Atriplex canescens*) occur throughout the project site. The quality of this habitat onsite is moderate for any special status species. Higher quality habitat occurs to the north of the site, within offsite areas.

### 4.2.2 - Disturbed Habitat (11300)

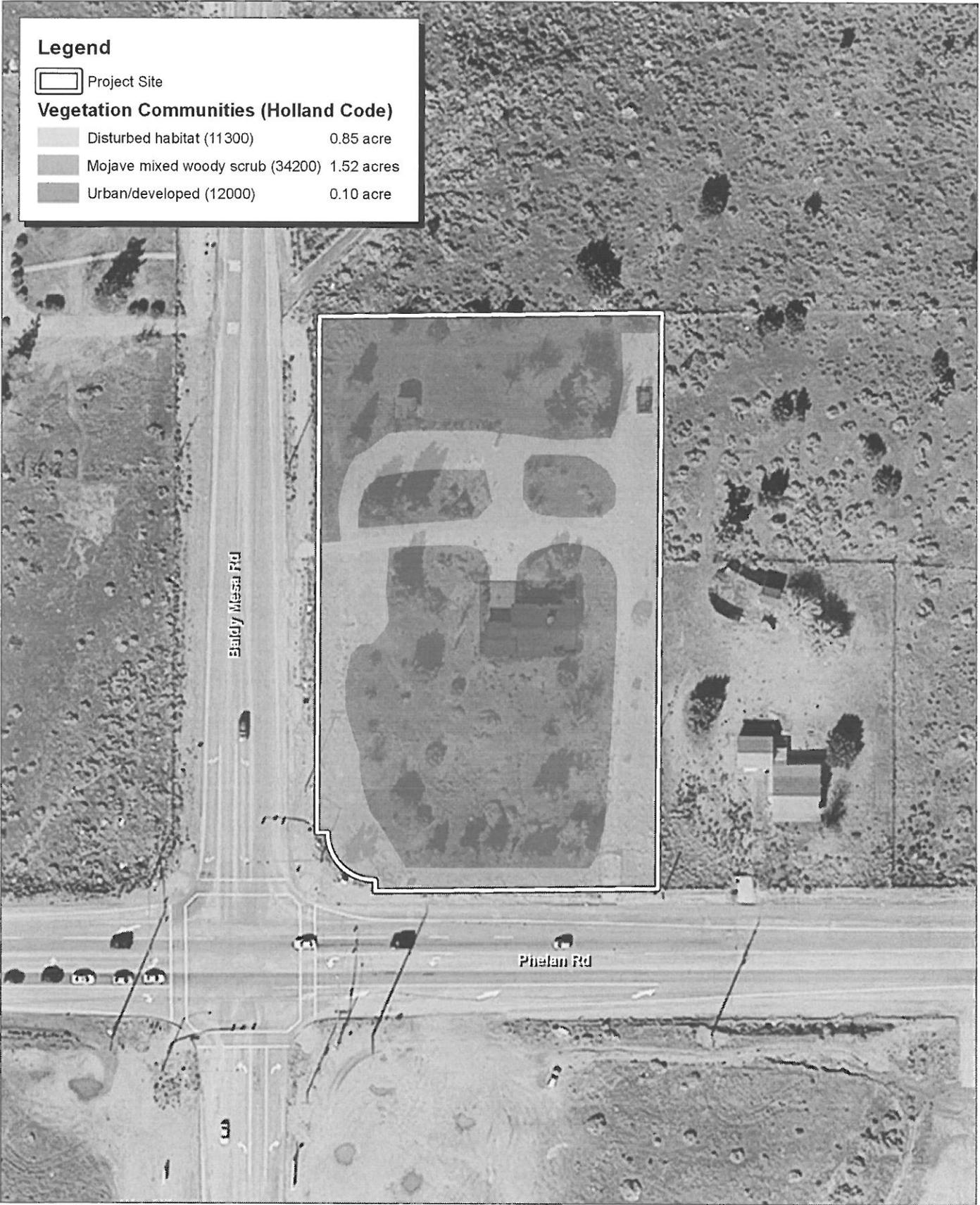
Disturbed habitat includes areas with vegetation cover less than 10 percent of the surface area (disregarding natural rock outcrops). These areas often contain evidence of soil surface disturbance and compaction from previous legal human activity. Also, where the vegetative cover is greater than 10 percent, there is often soil surface compaction associated with the disturbed nature of the site. In addition, this also includes the presence of building foundations and debris (e.g. irrigation piping, fencing, old wells, abandoned farming or mining equipment) resulting from legal activities (as

apposed to illegal dumping). Vegetation commonly observed within disturbed habitat areas will have a high predominance of non-native or weedy species that are indicators of soil disturbance. Common species commonly observed include Russian thistle (*Salsola tragus*), telegraph weed (*Heterotheca grandiflora*), horehound (*Marrubium vulgare*), sow thistle (*Sonchus oleraceus*), and a sub-dominance of unknown non-native grasses.

The project site contains approximately 0.85-acre of disturbed habitat, primarily within dirt access roads and previously disturbed areas associated with the residential property. The disturbed habitat onsite is characterized by compacted bare ground, with scattered non-native grasses and ruderal (weedy) species. Species observed within this habitat type include red brome (*Bromus rubens*), cheatgrass (*Bromus tectorum*), Bermuda grass (*Cynodon dactylon*), red-stemmed stork's bill (*Erodium cicutarium*), annual bur-sage (*Ambrosia acanthicarpa*), stinging nettle (*Urtica dioica*), and Russian thistle (*Salsola tragus*). This habitat type provides low quality habitat for any special status species known to occur in the region.

#### **4.2.3 - Urban/Developed (12000)**

Urban/developed includes land that has been constructed upon or otherwise covered with a permanent unnatural surface. Areas where no natural land is evident due to a large amount of debris or other materials being placed upon it may also be considered. The project site contains approximately 0.10-acre of urban/developed land, primarily mapped for the residential property. No plant species were observed within areas mapped as urban/developed land. The urban/developed land on site provides poor quality habitat for plant and wildlife species.



**Legend**

Project Site

**Vegetation Communities (Holland Code)**

	Disturbed habitat (11300)	0.85 acre
	Mojave mixed woody scrub (34200)	1.52 acres
	Urban/developed (12000)	0.10 acre

Source: ESRI Aerial Imagery. MBA Field Survey and GIS Data, 2012.

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## 4.3 - Wildlife

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The plant communities discussed above provide habitat for a number of local wildlife species. The following are brief discussions of wildlife species observed within the project site during the field survey, separated into taxonomic groups. Each discussion contains representative examples of a particular taxonomic group either observed onsite or expected to occur. A complete list of wildlife species observed within the site during the field survey is in Appendix A, Floral and Faunal Compendia.

### 4.3.1 - Invertebrates

Invertebrate activity was low during the field survey due to the time of year the survey was conducted. No invertebrate species were observed within the project site during the field survey. Common species expected to occur within the site include tarantula hawk (*Hemipepsis* sp.), harvester ant (*Pogonomyrmex* sp.), and stink beetle (*Eleodes* sp.).

### 4.3.2 - Amphibians

No amphibian species were observed or anticipated during the field survey due to the lack of water on the project site. No amphibian species are expected to occur on the project site due to lack of suitable habitat.

### 4.3.3 - Reptiles

The project site has many essential reptilian habitat characteristics, such as disturbed open habitat with adjacent vegetation coverage, and possesses the potential to support species such as western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), gopher snake (*Pituophis melanoleucus*), and western whiptail (*Aspidoscelis tigris*). No reptile species were observed onsite during the survey.

### 4.3.4 - Birds

The vegetation onsite and within the immediate vicinity provide suitable habitat for common bird species known to occur within scrub and developed habitats. Bird species observed onsite during the survey include common raven (*Corvus corax*) and European starling (*Sturnus vulgaris*). Other common species expected to occur onsite include lesser goldfinch (*Carduelis psaltria*) and house finch (*Carpodacus mexicanus*).

### 4.3.5 - Mammals

The project site provides favorable conditions expected to support small mammals better adapted to frequent human disturbance. One mammal species, coyote (*Canis latrans*), was observed during the survey.

## SECTION 5: SENSITIVE BIOLOGICAL RESOURCES

Based on the results of the literature review and reconnaissance-level field survey, MBA documented existing site conditions and determined if sensitive biological resources occur or potentially occur within the project site.

### 5.1 - Sensitive Plant Communities

Plant communities are considered to be sensitive biological resources based on federal, state, or local laws regulating their development, limited distributions, and habitat requirements of sensitive plants or wildlife species that occur within them. No sensitive plant communities occur on the project site.

### 5.2 - Sensitive Plant Species

The Sensitive Plant Species Table (Table 1) identifies the federal and state listed threatened, endangered plant species, and CNPS sensitive species that have a high, moderate, or low potential to occur within the project site. The table also includes the species' status and required habitat. All discussion of sensitive plant species that have been determined not likely to occur onsite, primarily based on the absence of suitable habitat and a recorded occurrence in the vicinity of the site, have been limited to the table and excluded from further analysis within this study.

Based on MBA's literature review, no sensitive plant species have been previously recorded within the vicinity of the site. No sensitive plant species were observed during the reconnaissance-level survey and the project site does not contain suitable habitat for any sensitive species.

#### 5.2.1 - Threatened or Endangered Species

No sensitive, threatened, or endangered plant species had a high or moderate potential to occur on the project site (Table 2).

#### 5.2.2 - California Native Plant Society List Species

No plant species listed on the CNPS list have suitable habitat onsite, nor have any been recorded to occur in the near vicinity.

#### 5.2.3 - Locally Protected Species

The California Desert Native Plants Act (CDNPA) protects native plants that occur within California's desert habitats. This Act protects native desert plants from harvesting for the purpose of sale or removal from any public or privately owned land. Several Joshua trees and cactus species protected under the CDNPA occur within the project site. No other locally protected species were observed on the project site during the field survey.

Table 1: Sensitive Plant Species

Species		Status			Preferred Habitat	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	CNPS			
<b>Herbaceous Annuals</b>							
<i>Loeflingia squarrosa</i> var. <i>artemisiarum</i>	sagebrush loeflingia	—	—	2.2	This species occurs within Great Basin scrub, sonoran desert scrub and desert dune habitats. Specifically this species can be found within sandy flats and dunes, and sandy areas around clay slicks with <i>sarcobatus</i> , <i>atriplex</i> , and <i>tetradymia</i> species. Elevation limits are 700 to 1,200 meters above sea level.	April to May	<b>Not likely to occur.</b> The project site does not contain any sandy flats or sand dunes. No associated species were observed onsite during the survey.
<b>Perennials</b>							
<i>Opuntia basilaris</i> var. <i>brachyclada</i>	short-joint beavertail	—	—	1B.2	This beavertail cactus occurs within chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon-juniper woodland, and riparian woodland. The substrate is typically sandy soil or coarse, granitic loam. Elevation limits are 425 to 1,800 meters above sea level.	April to Aug.	<b>Low Potential to Occur.</b> The project site contains Mojavean desert scrub habitat. However, the substrate onsite is significantly disturbed and compacted from previous disturbance. Therefore, the potential for this species to occur onsite is significantly reduced.
<b>ESA</b> FE Federally listed endangered FT Federally listed threatened FPE Federally proposed endangered FPT Federally proposed threatened FC Federal candidate		<b>CESA</b> SE State listed endangered ST State listed threatened SR State listed rare			<b>CNPS</b> 1A Presumed extinct in California. 1B Rare, threatened, or endangered in California and elsewhere. 2 Rare, threatened, or endangered in California, but more common elsewhere.		

Table 1 (cont.): Sensitive Plant Species

Species		Status			Preferred Habitat	Blooming Period	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	CNPS			
<p><b>Species Present</b> - The species was observed on the project site at the time of the survey or during a previous biological survey.</p> <p><b>High Potential to Occur</b> - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the project site, within 3 miles.</p> <p><b>Moderate Potential to Occur</b> - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the project site, but there is not a recorded occurrence of the species within the immediate vicinity, within 3 miles. Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.</p> <p><b>Low Potential to Occur</b> - There is a historical record of the species in the vicinity of the project site and potentially suitable habitat onsite, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation, substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.</p> <p><b>Not Likely to Occur</b> - A combination of the nearest recorded occurrence of the species is not within the near vicinity of the site, and the habitat onsite is marginally suitable at best. There is virtually no potential for this species to occur on the project site and further discussion is excluded from this report.</p>							

Table 2: Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	Other		
<b>Reptiles</b>						
<i>Gopherus agassizii</i>	desert tortoise	FT	ST	—	The desert tortoise is most common in desert scrub, desert wash, and Joshua tree habitats; within almost every desert habitat. This species requires friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms are its preferred habitat.	<b>Low Potential to Occur.</b> The project site contains Mojavean mixed desert scrub habitat and is within the known range of this species. The site lacks creosote bush and friable soils for burrows. Additionally, the nearest recorded occurrence is approximately 2.5 miles to the southeast of the project site, and the site is bordered by barbed wire fence, further reducing the potential for this species to occur onsite.
<i>Phrynosoma blainvillii</i>	coast horned lizard	—	—	CDFG: SSC	The coast horned lizard frequents a wide variety of habitats, and most commonly in lowlands along sandy washes with scattered low bushes. The species prefers open areas for sunning, bushes for cover, patches of loose soil for burial and an abundant supply of ants and other insects.	<b>Low Potential to Occur.</b> The project site contains moderately suitable habitat to support this species. However, due to the existing and previous disturbances onsite and compacted soils, the potential for this species to occur onsite is significantly reduced.
<b>Birds</b>						
<i>Athene cucularia</i>	burrowing owl	—	—	CDFG: SSC	Burrowing owls occur in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. This species is a subterranean nester and is dependent upon burrowing mammals, most notably the California ground squirrel.	<b>Moderate Potential to Occur.</b> The project site provides moderately suitable foraging habitat to support this species. The vegetation onsite is low-growing and sparse enough to allow for foraging. The site contains small mammal burrows, however, these burrows are very small and not likely belonging to California ground squirrel. Therefore, there is a low potential for this species to nest onsite.

Table 2 (cont.): Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	Other		
<i>Dendroica petechia brewsteri</i>	yellow warbler	—	—	CDFG: SSC	Yellow warbler occurs within riparian plant associations. It prefers willows, cottonwoods, aspens, sycamores, and alders for nesting and foraging. This species also nests in montane shrubbery in open conifer forests.	<b>Not Likely to Occur.</b> The project site is characterized by a Mojavean mixed scrub community and does not contain any riparian plant associations, woodlands or montane areas.
<i>Lanius ludovicianus</i>	loggerhead shrike	—	—	CDFG: SSC	Loggerhead shrike occurs within broken woodlands, savannahs, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrubs and washes. This species prefers open county for hunting, with perches for scanning and fairly dense shrubs and brush for nesting.	<b>Moderate Potential to Occur.</b> The project site contains suitable nesting habitat to support this species within the shrubs and trees located throughout the property. The nearest recorded location of this species is approximately 3 miles to the northeast.
<b>Mammals</b>						
<i>Xerospermophilus mohavensis</i>	Mohave ground squirrel	—	ST	—	Mohave ground squirrel occurs within open desert scrub, alkali scrub, and Joshua tree woodland habitats. It also feeds in annual grasslands, restricted to the Mojave desert. This species prefers sandy to gravelly soils and avoids rocky areas. It uses burrows at the base of shrubs for cover and nests in burrows.	<b>Not Likely to Occur.</b> The project site occurs just outside the known range for this species. Additionally, the project site does not provide suitable habitat, host plants, and undeveloped adjacent areas to support this species.
<b>ESA</b> FE FT FPE FPT FC	Federally listed endangered Federally listed threatened Federally proposed endangered Federally proposed threatened Federal candidate			<b>CESA</b> SE ST	State listed endangered State listed threatened	<b>Other</b> CDFG:SSC CDFG:FP CDFG:P  California Species of Concern Fully Protected Species Protected Species

Table 2 (cont.): Sensitive Wildlife Species

Species		Status			Preferred Habitat	Potential to Occur/ Known Occurrence/ Suitable Habitat
Scientific Name	Common Name	ESA	CESA	Other		
<p><b>Species Present</b> - The species was observed on the project site at the time of the survey or during a previous biological survey.</p> <p><b>High Potential to Occur</b> - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the project site, within 3 miles.</p> <p><b>Moderate Potential to Occur</b> - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the project site, but there is not a recorded occurrence of the species within the immediate vicinity, within 3 miles. Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.</p> <p><b>Low Potential to Occur</b> - There is a historical record of the species in the vicinity of the project site and potentially suitable habitat onsite, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation, substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.</p> <p><b>Not Likely to Occur</b> - A combination of the nearest recorded occurrence of the species is not within the near vicinity of the site, and the habitat onsite is marginally suitable at best. There is virtually no potential for this species to occur on the project site and further discussion is excluded from this report.</p>						

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### 5.3 - Sensitive Wildlife Species

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The Sensitive Wildlife Species Table (Table 2) identifies the federal and state listed threatened, endangered wildlife species, and species of special concern that have a high, moderate, or low potential to occur within the project site. The table also includes the species' status and required habitat. All discussion of sensitive wildlife species that have been determined not likely to occur onsite, primarily based on the absence of suitable habitat and a recorded occurrence on the project site, have been limited to the table and excluded from further analysis within this study.

Based on MBA's literature review, six sensitive wildlife species have been previously recorded within the vicinity of the site. The project site contains moderately suitable habitat for two sensitive wildlife species known to occur in the region. These potential for these species to occur onsite is discussed further below.

A discussion of each sensitive wildlife species recognized by the CNDDDB and MBA as potentially present on the site is presented in Table 2.

#### 5.3.1 - Mohave Ground Squirrel

Mohave ground squirrel is designated as a Threatened species by the California Fish and Game Commission but is not federally listed. In spite of two petitions, one in 1993 and another in 2005, to list the Mohave ground squirrel as a federally endangered species, the USFWS ruled in October 2011 that listing was not warranted at that time.

The County of San Bernardino specifically requested a habitat assessment for Mohave ground squirrel to determine the presence of suitable habitat for this species within the project site. A Mohave ground squirrel habitat assessment was conducted by biologist Ed LaRue on September 5, 2012. Mr. LaRue holds a Memorandum of Understanding (MOU) with CDFG, dated April 11, 2012, as an attachment to Scientific Collecting Permit #SC-001544, which expires on April 30, 2016.

The assessment was conducted according to accepted survey methods discussed between CDFG wildlife biologist Adrienne Disbrow and Mr. LaRue in 2004. Particularly, the site was evaluated for its location within the species' known range, presence of native habitat with a relatively diverse shrub component, and if the site is surrounded by development and therefore isolated from potentially occupied habitat.

The nearest recorded occurrence of Mohave ground squirrel was in 2005, approximately 3.3 miles northeast of the project site. When compared to other recorded observations of this species, the project site lies approximately 2.2 miles outside of the known range of this species. Secondly, although Mohave ground squirrel has been reported occupying a range of habitats within the elevation range of the project site, there is no suitable habitat onsite to support this species. The native habitat onsite has been significantly disturbed and altered from its natural state as a result of

construction of the residential property. Host plant species such as winter fat (*Krascheninnikovia lanata*) and spiny hop-sage (*Grayia spinosa*) are absent from the project site, further reducing the potential for this species to occur onsite. Lastly, the site is surrounded by development including well-traveled paved roads and residential development. All undeveloped land in the vicinity of the project site is separated from the site by fencing, roads, and development.

Therefore, there is no potential for this species to occur on the project site. Construction of the proposed project will not result in any impacts to this species and no further action is required. Additionally, because there is no potential habitat for this species onsite, no trapping surveys are warranted (LaRue 2012).

### 5.3.2 - Threatened or Endangered Species

No sensitive, threatened, or endangered wildlife species have a high or moderate potential to occur on the project site.

### 5.3.3 - California Species of Special Concern

The project site provides moderate quality habitat for loggerhead shrike and moderate quality foraging habitat for burrowing owl, which are both California species of special concern. Loggerhead shrike has been recorded approximately 3 miles northeast of the project site, and burrowing owl has been recorded within 4 miles of the project site. Suitable nesting habitat for loggerhead shrike occurs within the Mojave mixed woody scrub habitat and ornamental trees located on the project site. Suitable foraging habitat for burrowing owl occurs within the disturbed habitat onsite and within 500-foot surrounding the project site. No suitable burrows for nesting occur on the project site. Several small mammal burrows were observed during the field survey; however, these burrows were too small to occupy burrowing owl. However, due to the potential foraging habitat onsite and recorded observations within the vicinity of the site, the potential for burrowing owl to occur onsite cannot be completely ruled out.

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## 5.4 - Nesting Birds

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The Mojave mixed woody scrub habitat, disturbed habitat and urban/developed land onsite provides moderate quality habitat for common shrub, ground, and tree-nesting bird species known to occur in the region. Project impacts to nesting birds may occur if construction activities commence during the avian nesting season of February through August.

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## 5.5 - Wildlife Movement Corridors

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The project site occurs within a disturbed and developed parcel that is surrounded by a barbwire fence and located immediately adjacent to the intersection of Baldy Mesa Road and Phelan Road. On a local scale, the project site does not function as a wildlife movement corridor due to the existing development onsite and adjacent to the project site. On a regional scale, the surrounding land

contains open areas of undeveloped land that allows movement of wildlife species across the valley. Common wildlife species such as skunks, opossums, and raccoons can be expected to travel through the site and neighboring developed areas, but the site does not provide narrow connectivity between large areas of open space on a local or regional scale.

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## **5.6 - Jurisdictional Waters and Wetlands**

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No formal jurisdictional assessment has been conducted for the project site, however, based upon MBA's reconnaissance-level field survey, the project site contains no potentially jurisdictional waters of the US or State. No blue-line drainage features are mapped for the project site on the Baldy Mesa 7.5-minute topographic quadrangle map, or were observed onsite during the survey. No permanent or season wetlands occur within or adjacent to the project site. Therefore, no potentially jurisdictional features will be impacted as a result of construction of the proposed project.

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## **5.7 - Local Policies and Ordinances**

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The County of San Bernardino Development Code (2007) was developed to implement the San Bernardino General Plan by classifying and regulating the uses of land and structures within unincorporated San Bernardino County. The provisions of the Development Code preserves and protects the County's important agricultural, natural, cultural, open space and scenic resources. Chapter 82.11 specifically addresses development impacts relating to Biotic Resources, and Chapter 88.01 addresses plant protection and management within unincorporated areas of the County. The project site occurs within an unincorporated area of the County, and therefore, is subject to the guidelines described in the Development Code.

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## **5.8 - California Desert Native Plants Act**

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Several Joshua trees and cactus species protected under the CDNPA were observed within the project site during the field survey. The Joshua trees onsite are remnants from a native Mojave scrub plant community that naturally occurred onsite, and surrounding the site, prior to the construction of the residential property. The cactus species that occur onsite are landscaped plants installed for landscaping purposes for the residential property. Project-related impacts to onsite Joshua trees may be considered significant without incorporated mitigation.

## SECTION 6: RECOMMENDATIONS

This report was prepared to document the existing conditions within the project site, and classify and quantify the existing habitat onsite. This report analyzes the proposed project impacts under CEQA guidelines to determine the extent of impacts to biological resources. The recommendations included below address all potential project impacts to biological resources that may occur through construction of the proposed project.

### 6.1 - Sensitive Plant Communities

No sensitive plant communities occur on the project site and no additional analyses will be required.

### 6.2 - Sensitive Plant Species

Focused surveys are typically recommended for sensitive plant species that are federally or state-listed as endangered or threatened and have moderate to high potential to occur on the project site. The site contains no suitable habitat for any sensitive plant species. Additionally, no sensitive plant species are recorded to occur in the vicinity of the site nor were any sensitive plant species observed onsite during the field survey.

### 6.3 - Sensitive Wildlife Species

Focused surveys are typically recommended for sensitive wildlife species that are federally or state-listed as endangered or threatened and have moderate to high potential to occur on the project site. The site contains no suitable habitat for any state or federally threatened or endangered wildlife species, however, two California species of special concern have a potential to occur on the project site.

#### 6.3.1 - California Species of Special Concern

##### Burrowing Owl

Burrowing owl was recorded as occurring approximately 4 miles to the north of the site (CDFG 2012b). The disturbed habitat onsite provides moderately suitable foraging habitat for this species. However, the site lacks suitable nesting habitat due to the lack of suitable-sized rodent burrows on and within 500-feet of the project site. Due to the potential for suitable foraging habitat and the relatively close location of the nearest recorded occurrence, the potential for burrowing owl to forage onsite, or stop over during winter migration, cannot be completely ruled out. Therefore, a pre-construction clearance survey should be conducted within 14 days prior to project construction, according to survey guidelines outlined in the CDFG Staff Report on Burrowing Owl Mitigation (CDFG 2012b). If the results of the survey determine that burrowing owl is currently occupying the site or 500-foot buffer, additional avoidance and/or mitigation measures will be required.

### **Loggerhead Shrike**

An occurrence of loggerhead shrike was recorded approximately 3 miles to the northeast of the project site. This species has the potential to nest and forage within the Mojave mixed scrub habitat and ornamental trees onsite. Construction of the proposed project may result in a significant impact to this species if construction activities commence during the avian breeding season of February through August. If construction activities must commence during the breeding season, a pre-construction clearance survey should be conducted within 14 days prior to project construction to determine the presence/absence of this species onsite. Construction activities may commence only at the discretion of a biological monitor.

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## **6.4 - Nesting Birds**

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The project site contains suitable nesting habitat for several tree, shrub, and ground-nesting avian species. Therefore, pursuant to the Migratory Bird Treaty Act (MBTA) and CFG Code, removal of any trees, shrubs, or any other potential nesting habitat should be conducted outside the avian nesting season. The nesting season generally extends from early February through August, but can vary slightly from year to year based upon seasonal weather conditions.

If suitable nesting habitat must be removed during the nesting season, a qualified biologist should conduct a pre-construction, nesting bird survey to identify any nesting activity. If active nests are observed, construction activity may only be conducted at the discretion of a qualified biologist or otherwise must be postponed until the nestlings have fledged.

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## **6.5 - Wildlife Movement Corridors**

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The project site does not provide for any regional wildlife movement. The current developments onsite and surrounding the project site reduce the potential for large species to move through the area. Additionally, the project site does not provide a habitat linkage between two larger open space or undeveloped habitat areas that would function as a movement corridor. Therefore, no additional action is required for potential impacts to wildlife movement corridors.

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## **6.6 - Jurisdictional Waters and Wetlands**

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An informal assessment of jurisdictional waters and wetlands was conducted to assess the need for a formal delineation. Any anticipated impacts to a drainage feature could require a permit. Based upon MBA's informal findings during the reconnaissance-level field survey, the project site contains no jurisdictional water of the United States and state. No wetland features or riparian areas occur within or adjacent to the project site. No project impacts will occur to any potentially jurisdictional feature; therefore, no formal delineation or permitting is required.

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## **6.7 - The County of San Bernardino Development Code**

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The project site occurs within an unincorporated area of the County of San Bernardino and therefore the proposed project must adhere to the development codes and guidelines outlined in the County of San Bernardino Development Code, specifically Chapters 82.11 and 88.01. As currently designed, and with incorporation of the avoidance measures discussed above, the proposed project is considered in compliance with the goals and guidelines of the County of San Bernardino Development Code and General Plan, regarding biological resources.

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## **6.8 - California Desert Native Plant Act**

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The Joshua trees located within the project site are protected under the CDNPA and unauthorized removal of these trees is considered a significant impact. Consultation with the County of San Bernardino Land Use Department will be required prior to project construction to determine the necessary actions to minimize project-related impacts to a less than significant level. Relocation efforts or purchasing offsite mitigation credits may be an acceptable form of mitigation to minimize impacts. However, the County has final decision over appropriate mitigation measures.

## SECTION 7: CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. This report was prepared by MBA biologist Tommy Molioo, under the direct supervision of San Bernardino County-approved biologist Scott Crawford.

Date: January 16, 2013 Signed:



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Scott Crawford  
Senior Biologist/Project Manger  
Michael Brandman Associates  
220 Commerce, Suite 200  
Irvine, CA 92602

## **SECTION 8: REFERENCES**

- Barbour, M.J. and J. Major. 1977. *Terrestrial Vegetation of California*. Wiley Press. New York, New York. 1002 pp.
- California Department of Fish and Game (CDFG). 1988. *California's Wildlife. Volume I: Amphibians and Reptiles*. State of California Resources Agency. Sacramento, California.
- California Department of Fish and Game (CDFG). 1990a. *California's Wildlife. Volume II: Birds*. State of California Resources Agency. Sacramento, California.
- California Department of Fish and Game (CDFG). 2011. *Endangered and Threatened Animals List*. The Resources Agency of California, Department of Fish and Game, Natural Heritage Division, Natural Diversity Data Base. Sacramento, California. January.
- California Department of Fish and Game (CDFG). 2011. *Special Animals List*. The Resources Agency of California, Department of Fish and Game, Natural Heritage Division, Natural Diversity Data Base. Sacramento, California. January.
- California Department of Fish and Game (CDFG). 2012. *RareFind 4 online database. Data Base Record Search for Information on Threatened, Endangered, Rare, or Otherwise Sensitive Species for the Baldy Mesa, USGS Topographic Quadrangles*. California Department of Fish and Game, State of California Resources Agency. Sacramento, California. September.
- California Department of Fish and Game (CDFG). 2012a. *Special Vascular Plants, Bryophytes, and Lichens List*. California Department of Fish and Game, Natural Diversity Data Base. The Resources Agency of California. Sacramento, California. 119 pp. May.
- California Department of Fish and Game (CDFG). 2012b. *Staff Report on Burrowing Owl Mitigation*. State of California. Natural Resources Agency. March 7.
- California Department of Fish and Game (CDFG). 2012c. *State and Federally Listed Endangered, Threatened, and Rare Plants of California*. The Resources Agency State of California, Department of Fish and Game, Natural Heritage Division, Natural Diversity Data Base. Sacramento, California. May.
- California Department of Fish and Game (CDFG). 1990b. *California's Wildlife. Volume III: Mammals*. State of California Resources Agency. Sacramento, California.
- California Native Plant Society (CNPS). 2012. *California Native Plant Society's Electronic Inventory of Rare and Endangered Vascular Plants of California*. David C. Hudson & Associates and the Information Center for the Environment. U.C. Davis. Retrieved from: <http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi>.
- County of San Bernardino. 2007. *County of San Bernardino 2007 Development Code. Land Use Services Division. Chapters 82.11 and 88.01*. April.
- Hickman, J.C. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press. Berkeley, California.

- Holland, R.F. 1986 and 1992 update. Preliminary Descriptions of the Terrestrial Natural Communities of California. Non-game Heritage Program. California Department of Fish and Game. Sacramento, California.
- Holland, V.L. and D.J. Keil. 1995. California Vegetation. Kendall/Hunt Publishing Company, Dubuque, Iowa. 516 pp.
- Kramer, G. 1988. Fresh Emergent Wetland. In A Guide to Wildlife Habitats of California. California Department of Forestry and Fire Protection, 166 pp.
- LaRue, Ed. 2012. Formal Mohave Ground Squirrel Assessment for a 2.36-acre Site (APN 3064-041-02) in the Community of Oak Hills, San Bernardino County, California. September 2012. On file at MBA.
- Munz, P.A. 1974. A Flora of Southern California. University of California Press. Berkeley, California.
- National Geographic Society. 1987. National Geographic Society Field Guide to the Birds of North America. 2nd Edition. National Geographic Society, Washington DC.
- Noss, R.F. 1991. Landscape connectivity: Different functions at different scales. Pages 27-39 in W.E. Hudson, ed. Landscape Linkages and Biodiversity. Island Press, Washington, DC.
- Reed, P.B. 1988. National List of Plant Species That Occur in Wetlands: California (Region 0). National Wetlands Inventory, U.S. Fish and Wildlife Service Biological Report 88 (26.9).
- Riverside County, 2003. Western Riverside County Multiple Species Habitat Conservation Plan, Riverside County, California
- Sawyer, J.O. and T. Keeler-Wolf. 1995. A Manual of California Vegetation. California Native Plant Society. Sacramento, California.
- Skinner, M.W., and B.M. Pavlik. 1994. California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California. California Native Plant Society. Special Publication, No. 1, 5th ed.
- Udvardy, M.D. 1994. National Audubon Society Field Guide to North American Birds. Alfred A. Knopf, Inc. New York, New York.
- United States Department of Agriculture (USDA). 1971. Soil Survey, San Bernardino County Area, California. Department of the Interior. US Government Printing office, Washington DC.
- United States Fish and Wildlife Service (USFWS). 1998 (September/October). Endangered Species Bulletin, Volume XXIII Number 5.
- United States Geological Survey (USGS). 1978. Perris, California 7.5-Minute Topographic Quadrangle Map. Department of the Interior. US Government Printing office, Washington DC.

Weller, M.W. 1981. Freshwater Marshes: Ecology and Wildlife Management. University of Minnesota Press, Minneapolis, Minnesota. 146 pp.

## **Appendix A: Floral and Faunal Compendia**

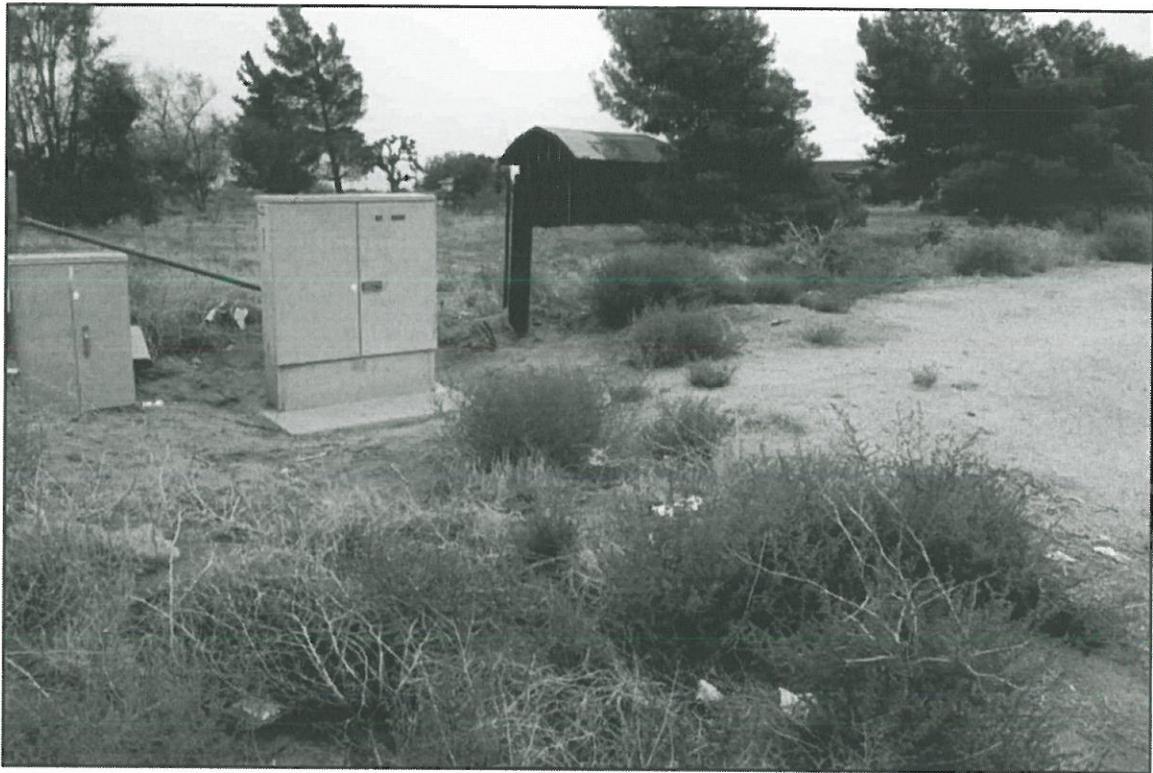
## Flora Compendia

<b>Ephedraceae</b>		<b>Ephedra Family</b>
<i>Ephedra</i>	<i>californica</i>	desert tea
<i>Juniperus</i>	<i>californica</i>	California juniper
<b>Amaranthaceae</b>		<b>Amaranth Family</b>
<i>Amaranthus</i>	<i>albus</i>	tumbling pigweed
<b>Asteraceae</b>		<b>Sunflower Family</b>
<i>Ambrosia</i>	<i>acanthicarpa</i>	annual bursage
<i>Artemisia</i>	<i>tridentata</i>	big sagebrush
<i>Ericameria</i>	<i>linearifolia</i>	interior goldenbush
<b>Cactaceae</b>		<b>Cactus Family</b>
<i>Cylindropuntia</i>	<i>echinocarpa</i>	silver cholla
<i>Cylindropuntia</i>	<i>ramosissima</i>	pencil cholla
<i>Cylindropuntia</i>	<i>sp.</i>	unknown cholla species
<b>Chenopodiaceae</b>		<b>Goosefoot Family</b>
<i>Atriplex</i>	<i>canescens</i>	four wing saltbush
<b>Euphorbiaceae</b>		<b>Spurge Family</b>
<i>Chamaesyce</i>	<i>albomarginata</i>	rattlesnake weed
<b>Geraniaceae</b>		<b>Geranium Family</b>
<i>Erodium</i>	<i>cicutarium</i>	red-stemmed stork's bill
<b>Myrtaceae</b>		<b>Myrtle Family</b>
<i>Eucalyptus</i>	<i>sp.</i>	unknown eucalyptus sp.
<b>Polygonaceae</b>		<b>Buckwheat Family</b>
<i>Eriogonum</i>	<i>maculatum</i>	spotted buckwheat
<b>Urticaceae</b>		<b>Nettle Family</b>
<i>Urtica</i>	<i>dioica</i>	stinging nettle
<b>Zygophyllaceae</b>		<b>Caltrop Family</b>
<i>Larrea</i>	<i>tridentata</i>	creosote bush
<b>Agavaceae</b>		<b>Agave Family</b>
<i>Yucca</i>	<i>brevifolia</i>	Joshua tree
<b>Poaceae</b>		<b>Grass Family</b>
<i>Bromus</i>	<i>rubens</i>	red brome
<i>Bromus</i>	<i>tectorum</i>	cheat grass
<i>Cynodon</i>	<i>dactylon</i>	Bermuda grass

## Fauna Compendia

<b>Corvidae</b>		<b>Jays/Crows</b>
<i>Corvus</i>	<i>corax</i>	common raven
<b>Sturnidae</b>		<b>Starlings</b>
<i>Sturnus</i>	<i>vulgaris</i>	European starling
<b>Canidae</b>		<b>Wolves and Foxes</b>
<i>Canis</i>	<i>latrans</i>	coyote

## **Appendix B: Site Photographs**



Photograph 1: View from the northwest corner, facing southeast.



Photograph 2: View from the northeast corner, facing southwest.

Source: Michael Brandman Associates, 2012.



Michael Brandman Associates

42360001 • 09/2012 | B\_site\_photos1and2.cdr

## Appendix B Site Photographs 1 and 2

MK DESIGN • EUM'S COMMERCIAL DEVELOPMENT  
BIOLOGICAL RESOURCES STUDY



Photograph 3: View from the southwest corner, facing northeast.



Photograph 4: View from the southeast corner, facing northwest.

Source: Michael Brandman Associates, 2012.



Michael Brandman Associates

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## Appendix B Site Photographs 3 and 4

MK DESIGN • EUM'S COMMERCIAL DEVELOPMENT  
BIOLOGICAL RESOURCES STUDY

## **Appendix C: Regulatory Framework**

## REGULATORY FRAMEWORK

### Sensitive Plant and Wildlife Species

Sensitive species are native species that have been accorded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

#### Federal Endangered Species Act

The United States Fish and Wildlife Service (USFWS) administers the Federal Endangered Species Act (ESA). The ESA provides a process for listing species as either threatened or endangered, and methods of protecting listed species. The ESA defines as “endangered” any plant or animal species that is in danger of extinction throughout all or a significant portion of its known geographic range. A “threatened” species is a species that is likely to become endangered. A “proposed” species is one that has been officially proposed by the USFWS for addition to the federal threatened and endangered species list.

Per § 9 of the ESA, “take” of threatened or endangered species is prohibited. The term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. Take can include disturbance to habitats used by a threatened or endangered species during any portion of its life history. The presence of any federally threatened or endangered species in a project area generally imposes severe constraints on development, particularly if development would result in “take” of the species or its habitat. Under the regulations of the ESA, the USFWS may authorize “take” when it is incidental to, but not the purpose of, an otherwise lawful act.

#### California Endangered Species Act

The California Department of Fish and Game (CDFG) administers the California Endangered Species Act (CESA). The State of California considers an “endangered” species one whose prospects of survival and reproduction are in immediate jeopardy. A “threatened” species is one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. A “rare” species is one present in such small numbers throughout its portion of its known geographic range that it may become endangered if its present environment worsens. The rare species designation applies to California native plants. State threatened and endangered species are fully protected against take, as defined above. The term “species of special concern” is an informal designation used by CDFG for some declining wildlife species that are not state candidates for listing. This designation does not provide legal protection, but signifies that these species are recognized as sensitive by CDFG.

### **California Native Plant Society**

The California Native Plant Society (CNPS) is a California resource conservation organization that has developed an inventory of California's sensitive plant species. This inventory summarizes information on the distribution, rarity, and endangerment of California's vascular plants. The inventory is divided into four lists based on the rarity of the species. In addition, the CNPS provides an inventory of plant communities that are considered sensitive by the state and federal resource agencies, academic institutions, and various conservation groups. Determination of the level of sensitivity is based on the number and size of remaining occurrences as well as recognized threats.

### **Migratory Bird Treaty Act**

The Migratory Bird Treaty Act (MBTA) protects all common wild birds found in the United States (U.S.) except the house sparrow, starling, feral pigeon, and resident game birds such as pheasant, grouse, quail, and wild turkey. Resident game birds are managed separately by each state. The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship, import, or export any migratory bird including feathers, parts, nests, or eggs.

### **California Fish and Game Code - § 3503 and § 3511**

The CDFG administers the California Fish and Game Code (CFG Code). There are particular sections of the CFG Code that are applicable to natural resource management. For example, § 3503 of the CFG Code states it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird that is protected under the MBTA. CFG Code § 3503.5 further protects all birds in the orders Falconiformes and Strigiformes, birds of prey such as hawks and owls, and their eggs and nests from any form of take. CFG Code § 3511 lists fully protected bird species where the CDFG is unable to authorize the issuance of permits or licenses to take these species.

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## **Jurisdictional Waters and Wetlands**

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Impacts to natural drainage features and wetland areas are regulated by the United States Army Corp of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFG based upon the policies and regulations discussed below.

### **United States Army Corp of Engineers Regulations**

#### **Federal Clean Water Act - § 404**

The USACE administers § 404 of the federal Clean Water Act (CWA). This section regulates the discharge of dredge and fill material into waters of the U.S. USACE has established a series of nationwide permits that authorize certain activities in waters of the U.S., if a proposed activity can demonstrate compliance with standard conditions. Normally, USACE requires an individual permit for an activity that will affect an area equal to or in excess of 0.5 acre of waters of the U.S. Projects that result in impacts to less than 0.5 acre can normally be conducted pursuant to one of the nationwide permits, if consistent with the standard permit conditions. USACE also has discretionary

authority to require an Environmental Impact Statement for projects that result in impacts to an area between 0.1 and 0.5 acre. Use of any nationwide permit is contingent on the activities having no impacts to endangered species.

### **Waters of the United States**

Waters of the U.S., as defined in the Code of Federal Regulations (CFR) § 328.3, include all waters or tributaries to waters such as lakes, rivers, intermittent and perennial streams, mudflats, sand-flats, natural ponds, wetlands, wet meadows, and other aquatic habitats. Frequently, waters of the U.S., with at least intermittently flowing water or tidal influences, are demarcated by an ordinary high water mark (OHWM). The OHWM is defined in CFR § 328.3(e) as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. In this region, the OHWM is typically indicated by the presence of an incised streambed with defined bank shelving.

In June 2001, the USACE South Pacific Division has issued "Guidelines for Jurisdictional Delineations for Waters of the United States in the Arid Southwest." The purpose of this document was to provide background information concerning physical characteristics of dry-land drainage systems. These guidelines were reviewed and used to identify jurisdictional drainage features within the Project Site.

### **Wetlands**

According to the USACE Wetlands Delineation Manual, Technical Report, three criteria must be satisfied to classify an area as a jurisdictional wetland:

1. A predominance of plant life that is adapted to life in wet conditions (hydrophytic vegetation)
2. Soils that saturate, flood, or pond long enough during the growing season to develop anaerobic conditions in the upper part (hydric soils)
3. Permanent or periodic inundation or soils saturation, at least seasonally (wetland hydrology)

Wetland vegetation is characterized by vegetation in which more than 50 percent of the composition of dominant plant species are obligate wetland, facultative wetland, and/or facultative species that occur in wetlands. As a result of the 2001 Solid Waste Agency of North Cook County (SWANCC) case, a wetland must show connectivity to a stream course in order for such a feature to be considered jurisdictional. Although wetland criteria was used to identify if areas were considered wetlands, the exact limits of jurisdiction were not measured based on the standard wetland delineation protocol as described in the 1987 USACE manual.

### **United States Army Corp of Engineers Regulated Activities**

The USACE regulates the discharge of dredged or fill material including, but not limited to, grading, placing of rip-rap for erosion control, pouring concrete, laying sod, and stockpiling excavated material. Activities that generally do not involve a regulated discharge, if performed specifically in a manner to avoid discharges, include driving pilings, drainage channel maintenance, temporary mining and farm/forest roads, and excavating without stockpiling.

### **Regional Water Quality Control Board Regulations**

#### **Clean Water Act - § 401**

Per § 401 of the CWA, “any applicant for a Federal permit for activities that involve a discharge to waters of the State, shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act.” Therefore, before the USACE will issue a § 404 permit, applicants must apply for and receive a § 401 water quality certification from the RWQCB.

#### **Porter-Cologne Water Quality Act**

The RWQCB regulates actions that would involve “discharging waste, or proposing to discharge waste, within any region that could affect the water of the state” (water code § 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. “Waters of the State” are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (water code § 13050 (e)).

### **Regional Water Quality Control Board Regulated Activities**

Under § 401 of the CWA, the RWQCB regulates all activities that are regulated by the USACE. Additionally, under the Porter-Cologne Water Quality Act, the RWQCB regulates all activities, including dredging, filling, or discharge of materials into waters of the state that are not regulated by the USACE due to a lack of connectivity with a navigable water body and/or lack of an OHWM.

### **California Department of Fish and Game Regulations**

#### **California Fish and Game Code - § 1600 to § 1603**

The CFG Code mandates that “it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds, without first notifying the department of such activity.” CDFG jurisdiction includes ephemeral, intermittent, and perennial watercourses, including dry washes, characterized by the presence of hydrophytic vegetation, the location of definable bed and banks, and the presence of existing fish or wildlife resources.

Furthermore, CDFG jurisdiction is often extended to habitats adjacent to watercourses, such as oak woodlands in canyon bottoms or willow woodlands that function as part of the riparian system. Historic court cases have further extended CDFG jurisdiction to include watercourses that seemingly

disappear, but re-emerge elsewhere. Under the CDFG definition, a watercourse need not exhibit evidence of an OHWM to be claimed as jurisdiction. However, CDFG does not regulate isolated wetlands; that is, those that are not associated with a river, stream, or lake.

**California Department of Fish and Game Regulated Activities**

The CDFG regulates activities that involve diversions, obstruction, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife resources.