

APPENDIX E
YUCAIPA FREEWAY CORRIDOR SPECIFIC PLAN
BIOLOGICAL RESOURCES TECHNICAL REPORT

**YUCAIPA
FREEWAY CORRIDOR SPECIFIC PLAN
BIOLOGICAL RESOURCES TECHNICAL REPORT**

PREPARED FOR:

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GLOSSARY

AG	Agriculture
BS	Baccharis Scrub
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	County of San Bernardino
CSC	California Species of Special Concern
DEV	Developed Land
DIST	Disturbed Land
EPA	Environmental Protection Agency
ERA	EcoSystems Restoration Associates
FESA	Federal Endangered Species
GIS	Geographic Information Systems
MBTA	Migratory Bird Treaty Act
MFS	Mulefat Scrub
MSL	Mean Sea Level
NNG	Non-Native Grassland
NNG/RSS	Non-Native Grassland/Riversidean Sage Scrub
NNW	Non-Native Woodland
OW	Oak Woodland
P&D	P&D Consultants
Project Site	Yucaipa Freeway Corridor Specific Plan Project site
RS/CS	Riversidean Sage/Chaparral Scrub
RSS	Riversidean Sage Scrub
RSUC	Riversidean Succulent Scrub
RWQCB	Regional Water Quality Control Board
SD	Scoured Drainage
SOW	Savannah Oak Woodland
Specific Plan	Yucaipa Freeway Corridor Specific Plan
SWS	Southern Willow Scrub
USACE	Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
YDC	Yucaipa Development Code
YVWD	Yucaipa Valley Water District

1.0 EXECUTIVE SUMMARY

This report describes the existing biological resources within the approximately 1,234-acre Yucaipa Freeway Corridor Specific Plan (Specific Plan) project site (project site), assesses the potential impacts to these biological resources associated with the Specific Plan and, recommends mitigation for impacts that are considered significant under California Environmental Quality Act (CEQA) guidelines. The project site straddles Interstate 10 (I-10) and is situated along and just north of the San Bernardino-Riverside County line in the City of Yucaipa, San Bernardino County, California. Approximately 190 acres of the project site occur north of I-10 and approximately 1,044 acres of the project site occur south of I-10. The Specific Plan establishes a framework for development of the area, including proposed land uses, development regulations, and design standards; a pedestrian, vehicular, and bicycle circulation plan; a plan for protecting and managing important natural resources; infrastructure facilities, including financing and phasing, required to support Specific Plan development; and implementation and administrative processes needed to approve specific development projects within the Specific Plan project site.

The proposed project will result in permanent and temporary impacts to a total of approximately 856.5 acres of land for residential, community commercial, regional commercial, business park, public facilities, and fuel modification. Open space is proposed to be set aside for protection of natural features, hillsides, ridgelines, and views, and to provide buffering of incompatible land uses. Of the 856.5 acres, approximately 148.6 acres are associated with the 100-foot-wide fuel modification zone around all proposed development (Section 85.020220 of the Yucaipa Development Code [YDC]). According to the fire ordinance, provisions shall be made for the continual maintenance of these fuel modification areas and, where feasible, these areas shall be designated as common open space rather than private open space. In addition, fuel modification areas shall also incorporate soil erosion and sediment control measures to alleviate permanent scarring and accelerated erosion.

The proposed project is expected to include impacts to the following sensitive vegetation communities as a result of permanent and temporary impacts: oak woodland, savannah oak woodland, and southern willow scrub. Any impacts to these sensitive vegetation communities would be considered adverse and significant according to CEQA, and therefore, mitigation would be required.

The following sensitive plant species have a potential to occur within the project site based on observations during the biological reconnaissance survey, historical occurrence data, and the presence of suitable habitat and soils in the vicinity of the survey area: chaparral sand-verbena, Jager's milk-vetch, Mesa horkelia, Nevin's barberry, rayless ragwort, Robinson's peppergrass, and slender-horned spineflower. Before impacts to these CNPS List 1B or 2 sensitive plants can be assessed, focused surveys during the appropriate blooming period will be required. Any impacts to these plants or any other plants that are classified as state listed, federally listed, CNPS List 1B or 2 plant species are considered adverse and significant according to CEQA, and therefore, mitigation would be required. In addition, any impacts to oak trees are considered significant and would require mitigation under the Oak Tree Conservation Ordinance (YDC Section 89.0501).

Arroyo toad (*Bufo californicus*) has a low potential to occur within the project site based on historical occurrence data for the region, although the presence of suitable habitat within and adjacent to the project site was identified during the biological reconnaissance survey. Therefore, focused surveys are recommended to determine the presence or absence of this species within the project site. Any impacts to arroyo toad would be considered adverse and significant according to CEQA, and therefore, mitigation would be required.

Several sensitive bird species have a potential to occur within the project site based on historical occurrence data for the region, historical occurrence data, and the presence of suitable habitat within and adjacent to the project site as identified during the biological reconnaissance survey. Focused surveys for the following bird species are recommended: coastal California gnatcatcher (*Poliioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), and western burrowing owl (*Athene cunicularia*). Any impacts to these sensitive species, as well as any other federally and/or state-listed and/or fully protected

species, are considered adverse and significant according to CEQA, and therefore, mitigation would be required. Impacts to nesting raptors (including white-tailed kite [*Elanus leucurus*]) or any other nesting bird are considered significant under California Fish and Game Code 3503.5 and the Migratory Bird Treaty Act.

Stephens' kangaroo rat (*Dipodomys stephensi*) and San Bernardino Merriam's kangaroo rat (*Dipodomys merriami parvus*) have a low to moderate potential to occur within the project site based on historical occurrence data for the region, and the presence of suitable habitat within and adjacent to the project site as identified during the biological reconnaissance survey. Therefore, small mammal trapping is recommended to determine the presence or absence of these species within the project site. Any impacts to these species would be considered adverse and significant according to CEQA, and therefore, mitigation would be required.

The project site is not expected to function as a regional wildlife corridor or habitat linkage because of its immediately vicinity to residential development, commercial development, roads, and highways, and because it does not serve as a connection to adjoining areas of open space. The proposed project is not expected to substantially alter wildlife populations and movement in a region-wide context; therefore, these potential impacts are not considered significant to regional wildlife movement. Although the project is expected to have a substantial impact on local wildlife movement, these impacts are not expected to be a significant impact to local or regional wildlife movement; therefore, no mitigation is expected.

The project site contains several drainages and waterways under the jurisdiction of U.S. Army Corps of Engineers (USACE), California Department of Fish and Game (CDFG), and the Regional Water Quality Control Board (RWQCB). Before impacts to these jurisdictional areas can be assessed, a formal wetland delineation would need to be conducted to more accurately identify, evaluate, and map the extent of these potential jurisdictional areas. Any impacts to jurisdictional areas would be considered adverse and significant, and therefore, mitigation would be required. Unavoidable impacts to jurisdictional resources would require a Section 404 permit authorization from USACE, a 1602 Streambed Alteration Agreement from CDFG, and a 401 State Water Quality Certification from RWQCB.

2.0 INTRODUCTION

The approximately 1,233.99-acre Yucaipa Freeway Corridor Specific Plan (Specific Plan) project site (project site) is located in the City of Yucaipa, San Bernardino County, California (Figures 1 and 2). The project site is situated along and just north of the San Bernardino-Riverside County line within Range 2 West, Township 2 South, and in an unidentified Section of the U.S. Geological Survey (USGS) Yucaipa quadrangle (USGS 1967; Figure 2). The majority of the project site (approximately 1,044 acres) is south of Interstate 10 (I-10) between I-10 and the San Bernardino County line, with an additional portion of the project site (approximately 190 acres) north of I-10, between the I-10 and residential development. Regional access to the project site is provided by I-10 from the east and west, and local access to the project site is provided by Live Oak Canyon Road, County Line Road, Oak Glen Road, Wildwood Canyon Road, and Calimesa Boulevard.

The majority of the project site is undeveloped and dominated by non-native grassland, Riversidean sage/chaparral scrub, and savannah oak woodland. Land uses within the project site are dominated by agricultural uses, including a Christmas tree farm in the northwestern portion and actively grazed pasture lands throughout; residential use, consisting of scattered single-family residential homes in the southeast corner; and an approximately 27-acre wastewater treatment facility on approximately 127 acres of land owned and operated by the Yucaipa Valley Water District (YVWD) (Figure 3). The dominant land uses adjacent to the portion of the project site north of I-10 include residential use to the west, north, and east, with a few small-scale commercial uses adjacent to and east of I-10. The current dominant land uses adjacent to the portion of the project site south of I-10 include agricultural and pasture lands to the west, south, and east, with some residential use along County Line Road to the east. The Norton Younglove Reserve, an open space park in the County of Riverside, occurs south of the project site and adjacent agricultural and pasture lands. The topography of the project site consists of rolling hills, strongly dissected alluvial deposits, plateaus bordered by steep hillsides, and narrow valleys generally oriented east-west. Yucaipa Creek, Wilson Creek, Wildwood Creek, and several unnamed blue-line drainages flow in a west/southwest direction across the project site (Figure 4). The names and locations of Yucaipa Creek, Wilson Creek, and Wildwood Creek are referenced from the City of Yucaipa Master Plan of Drainage (Boyle Engineering 1993). However, it should be noted that the USGS Yucaipa quadrangle provides alternative names and locations of these creeks (USGS 1967). According to the USGS Yucaipa quadrangle, Yucaipa Creek enters the project site from the east and remains south of I-10, rather than entering the project site from the north and crossing under I-10 as presented in Figure 4 and the City of Yucaipa Master Plan of Drainage (Boyle Engineering 1993). In addition, Wilson Creek is referenced as Oak Glen Creek in the USGS Yucaipa quadrangle and Wildwood Creek is not referenced in the USGS Yucaipa quadrangle (USGS 1967; Boyle Engineering 1993).

Land uses proposed in the Specific Plan area include: (1) Residential (i.e., rural residential uses, incidental agricultural uses, single-family residential uses, multiple-family residential uses, single-family residential uses, cluster residential uses, mixed residential uses, etc.); (2) Community Commercial (i.e., retail and service commercial establishments); (3) Regional Commercial (i.e., stores, lodging services, office and professional services, recreation and entertainment services, wholesaling and warehousing, contract/construction services, transportation services, open lot services, etc.); (4) Business Park (i.e., light industrial and office uses, light manufacturing uses, wholesale/warehouse services, contract/construction services, transportation services, agriculture support services, incidental services, transportation services, etc.); (5) Public Facilities (i.e., public and quasi-public uses and facilities such as schools or wastewater treatment facilities); (6) Open Space (i.e., sites for protection of natural features, hillsides, ridgelines, and views, and to provide buffering of incompatible land uses).

This report provides the necessary biological data and background information required for environmental analysis under guidelines provided in the California Environmental Quality Act (CEQA). In addition, potential impacts associated with the proposed project and expected mitigation for impacts that are considered significant under CEQA guidelines are discussed.

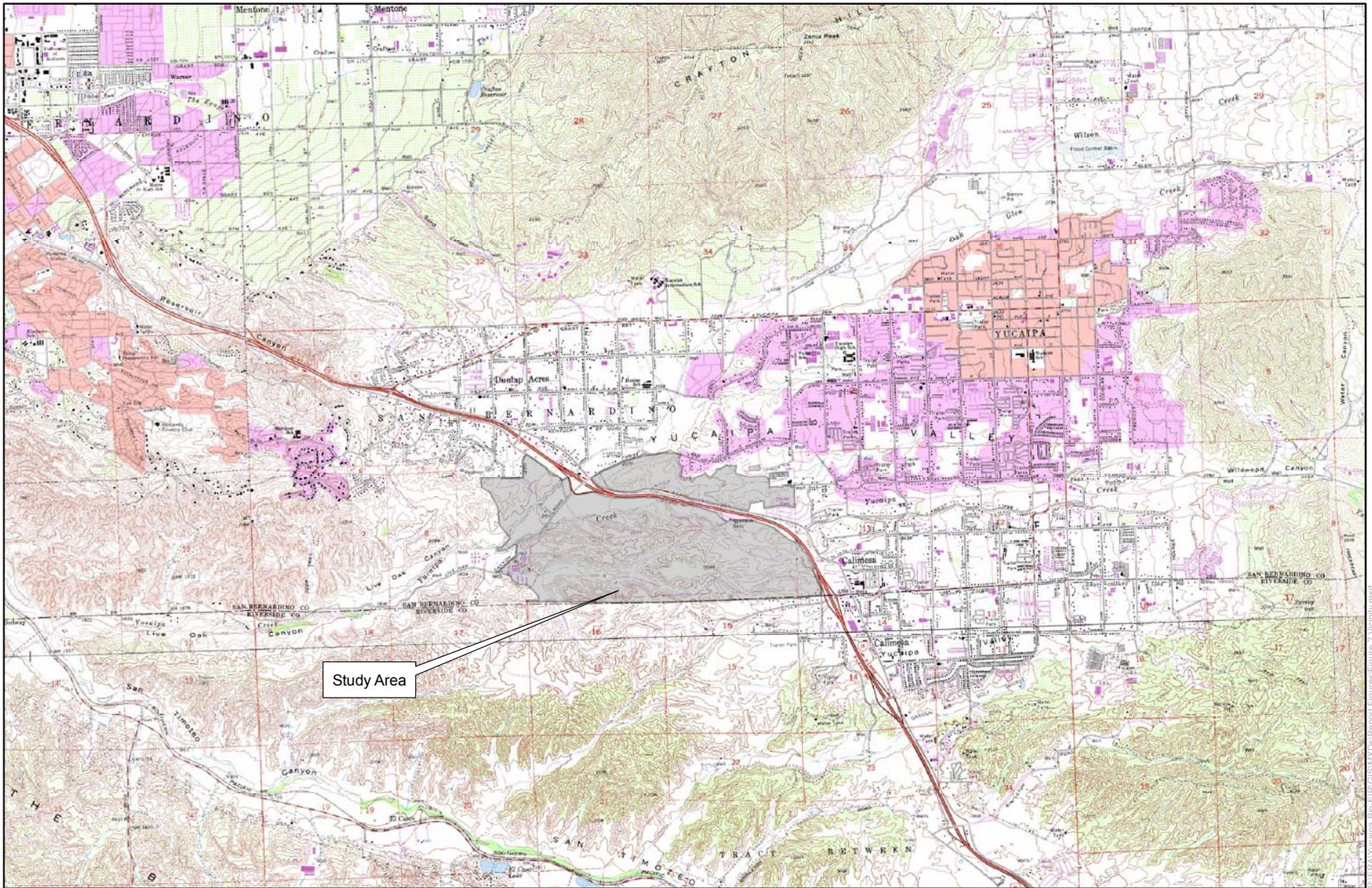


P:\EIR\Yucaipa Bio-EIR\GIS\MXDs\Report Figures\Figure 1 Regional.mxd

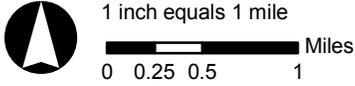
Regional Map

Figure 1





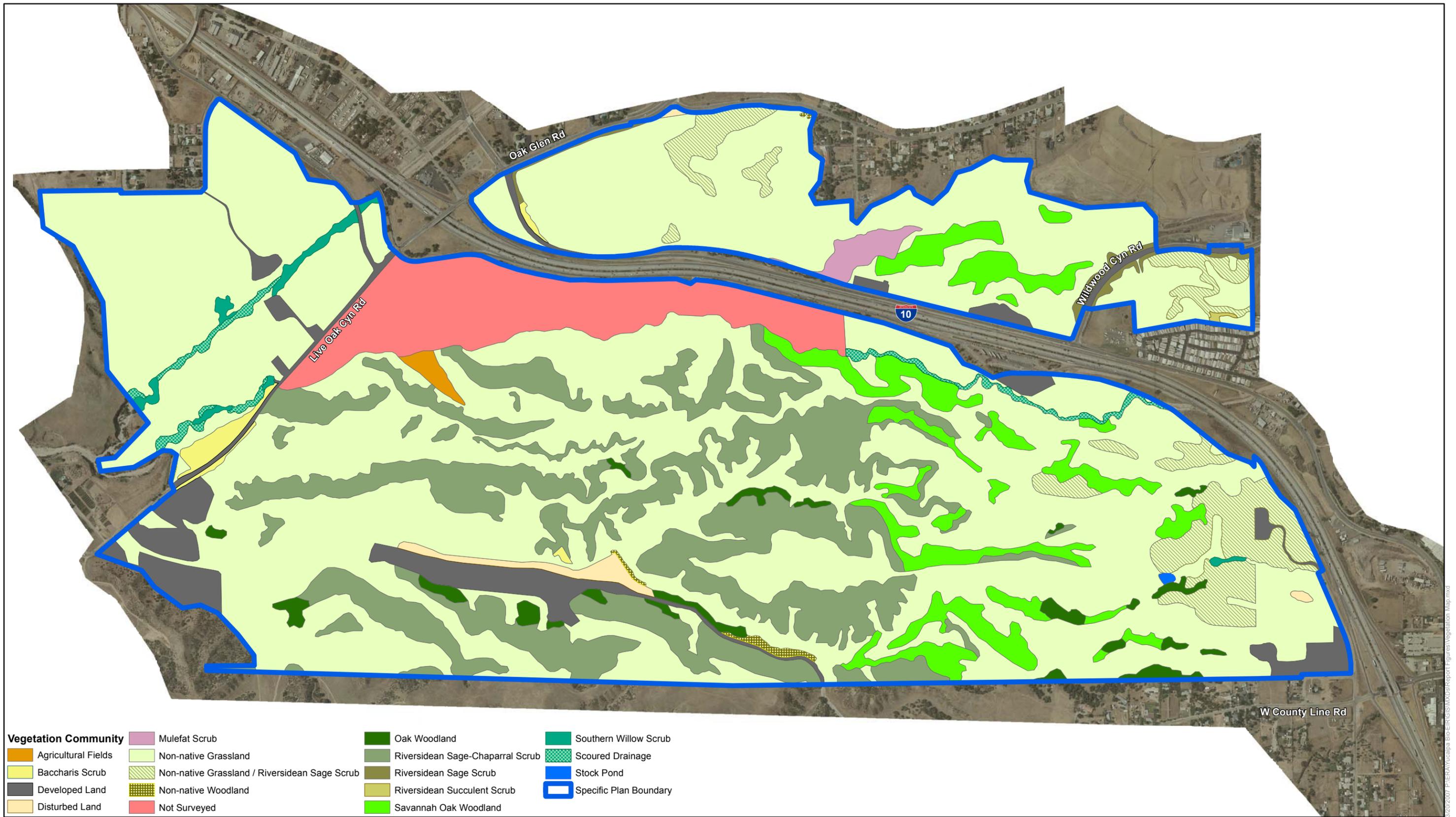
Source: USGS



Vicinity Map



Figure 2



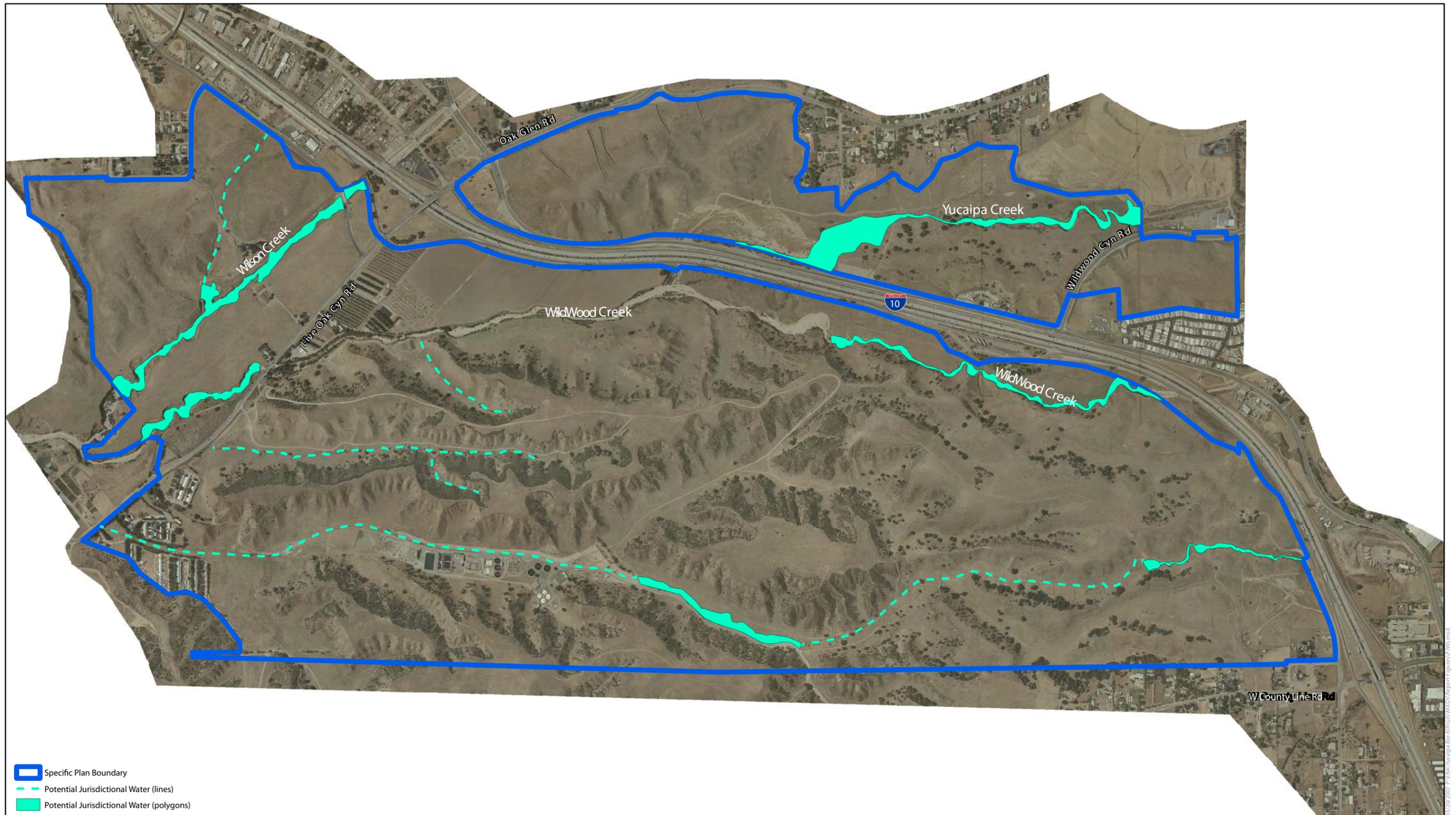
1 inch equals 900 feet
 0 225 450 900 Feet



Source: ERA

Vegetation Map

Figure 3



1 inch equals 900 feet
 0 225 450 900 Feet



Source: ERA

Potential Jurisdictional Areas

Figure 4

3.0 METHODOLOGY

A biological reconnaissance survey of the project site was conducted on March 29 and 30, 2006, by EcoSystems Restoration Associates (ERA) biologists Darin Busby, Melissa Busby, and Annie Hill as well as ERA Geographic Information Systems (GIS) analyst Aaron Johnson (Table 1). Surveys were conducted on foot, to cover all areas of the project site. Areas within the project site exhibiting steep slopes or rugged terrain were not surveyed directly on foot but through the use of binoculars.

Vegetation communities were assessed and mapped by hand in the field on a 1 inch equals 200 feet aerial photograph and later screen-digitized in the office into ArcGIS software. It should be understood that some succession and changes within vegetation community structure and composition occur over time and that, at the time of actual impact, months or years could pass since the mapping was conducted based on the long-term planning nature of the project; consequently, vegetation communities should be verified if a significant amount of time passes before project implementation.

Wildlife species observed directly or detected from calls, tracks, scat, nests, or other sign were noted. All plant species observed in the project site were also noted, and plants that could not be identified in the field were collected and identified later using taxonomic keys.

**TABLE 1
SUMMARY OF SURVEY CONDITIONS**

Date	Surveyors	Survey Times	Survey Type	Beginning Conditions	Ending Conditions
3-29-06	D. Busby, M. Busby, A. Hill, A. Johnson	8:00am - 4:30pm	Biological reconnaissance; Vegetation mapping	50 °F; wind 2-3 mph; 100% cloud cover	59 °F; wind 3-5 mph; 40% cloud cover
3-30-06	D. Busby, M. Busby, A. Hill, A. Johnson	8:15am- 12:40pm	Biological reconnaissance; Vegetation mapping	53 °F; wind 1-2 mph; 100% cloud cover	60 °F; wind 2-4 mph; 10% cloud cover

°F = degrees Fahrenheit; mph = miles per hour; % = percent

4.0 EXISTING CONDITIONS

This section describes existing biological conditions within the project site, including existing vegetation communities, plant species, wildlife species, and rare and sensitive plant and wildlife species either known to occur or with a potential to occur in the project site. The information provided in the following sections is based on a review of pertinent reference materials and data collected during the biological reconnaissance survey conducted within the project site on March 29 and 30, 2006.

4.1 TOPOGRAPHY AND SOILS

Elevation within the project site ranges from approximately 2,300 feet above mean sea level (MSL) in the northeastern portion of the project site to approximately 1,900 feet above MSL in the southwestern portion of the project site (USGS 1967). The topography of the project site north of I-10 generally consists of rolling hills with relatively steep south-facing slopes. The topography of the project site south of I-10 generally consists of strongly dissected alluvial deposits and relatively flat plateaus bordered by steep hillsides and narrow valleys generally oriented east-west (Appendix A: Photograph 1). Yucaipa Creek, Wilson Creek, Wildwood Creek, and several unnamed blue-line drainages flow in a west/southwest direction across the project site (Figure 4). The names and locations of Yucaipa Creek, Wilson Creek, and Wildwood Creek are referenced from the City of Yucaipa Master Plan of Drainage (Boyle Engineering 1993). However, it should be noted that the USGS Yucaipa quadrangle provides alternative names and locations of these creeks (USGS 1967). According to the USGS Yucaipa quadrangle, Yucaipa Creek enters the project site from the east and remains south of I-10, rather than entering the project site from the north and crossing under I-10 as presented in Figure 4 and the City of Yucaipa Master Plan of Drainage (Boyle Engineering 1993). In addition, Wilson Creek is referenced as Oak Glen Creek in the USGS Yucaipa quadrangle and Wildwood Creek is not referenced in the USGS Yucaipa quadrangle (USGS 1967; Boyle Engineering 1993). These drainages are severely eroded and are fed from off-site sources as well as from other smaller drainages that originate along the ridgelines and steep slopes within the project site.

Eleven soil types from six different soil series occur within the project site, including Hanford coarse sandy loam, 2 to 9 percent slopes (HaC); psamments and fluvents, frequently flooded (Ps); Ramona sandy loam, 2 to 9 percent slopes (RmC), Ramona sandy loam, 9 to 15 percent slopes (RmD), Ramona sandy loam, 15 to 30 percent slopes (RmE2), San Emigdio sandy loam, 9 to 15 percent slopes (SaD), San Emigdio fine sandy loam, 2 to 9 percent slopes (ScC), San Timoteo loam, 30 to 50 percent slopes, eroded (SgF2), Saugus sandy loam, 30 to 50 percent slopes (ShF), San Timoteo loam, 8 to 25 percent slopes, eroded (SmE2wr) (U.S. Department of Agriculture [USDA] 2006). Characteristics of these soils are described in the USDA Soil Survey of San Bernardino County Southwestern Part, California (USDA 2006).

4.2 VEGETATION COMMUNITIES

Sixteen vegetation communities and landscapes occur in the project site, including Riversidean sage scrub, Riversidean sage/chaparral scrub, non-native grassland/Riversidean sage scrub, Riversidean succulent scrub, baccharis scrub, oak woodland, savannah oak woodland, southern willow scrub, scoured drainage, mulefat scrub, non-native woodland, non-native grassland, agricultural fields, disturbed land, developed land, and stock pond. The majority of the project site is heavily impacted by cattle grazing. As a result, the dominant vegetation within the project site consists of non-native grassland. Other dominant vegetation communities include Riversidean sage/chaparral scrub and savannah oak woodland.

Table 2 lists the acreages of each vegetation community present, and Figure 3 illustrates the locations of each vegetation community in the project site. Locations and acreages of vegetation communities are approximate because (1) they exhibit successional changes over time, (2) they occur on a continuum with the edges of one community often blending with adjacent communities, and (3) they were assessed and mapped by hand in the field on an aerial photograph. A total of 78 plant species were identified in the

project site (Appendix B), of which 48 (61.5 percent) are species native to southern California and 30 (38 percent) are introduced species. A description of each of these vegetation communities and their acreage totals are provided in the following sections.

**TABLE 2
EXISTING VEGETATION COMMUNITIES**

VEGETATION COMMUNITY	ACREAGE
Riversidean Sage Scrub	5.3
Riversidean Sage/Chaparral Scrub	196.5
Non-Native Grassland/ Riversidean Sage Scrub	50.7
Riversidean Succulent Scrub	0.4
Baccharis Scrub	5.7
Oak Woodland	15.9
Savannah Oak Woodland	61.9
Southern Willow Scrub	5.2
Scoured Drainage	7.9
Mulefat Scrub	6.3
Non-Native Woodland	2.0
Non-Native Grassland	740.4
Agricultural Fields	2.7
Disturbed Land	6.6
Developed Land	54.7
Stock Pond	0.3
Not Surveyed	71.5
Total	1234.0

Source: EcoSystems Restoration Associates, 2007.

4.2.1 Riversidean Sage Scrub

Riversidean sage scrub is comprised of low-growing, aromatic, drought-deciduous, soft-woody shrubs that have an average height of approximately three to four feet. Stands of this vegetation community are fairly open and are typically dominated by California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and foxtail chess (*Bromus madritensis* ssp. *rubens*). This community typically is found on sites with low moisture availability and steep, xeric slopes or clay rich soils that are slow to release stored water. These sites often include drier south- and west-facing slopes and occasionally north-facing slopes, where the community can act as a successional phase of chaparral development. Riversidean coastal sage scrub intergrades at higher elevations with several types of chaparrals. This community is found along the coastal base of the Transverse and Peninsular ranges, from central Los Angeles into Mexico (Holland 1986).

A total of 5.3 acres of Riversidean sage scrub occur within the project site, north of I-10. Within the project site, this vegetation community is primarily composed of a high percentage of native, low-growing shrub species such as California sagebrush, California buckwheat, brittlebush (*Encelia farinosa*), interior goldenbush (*Ericameria linearifolia*), four-wing saltbush (*Atriplex canescens*), coast locoweed (*Astragalus trichopodus* var. *lonchus*), and deerweed (*Lotus scoparius*), and a low percentage of non-native grass species such as wild oat (*Avena fatua*), ripgut grass (*Bromus diandrus*), foxtail chess, and Italian ryegrass (*Lolium multiflorum*).

4.2.2 Riversidean Sage/Chaparral Scrub

Riversidean sage/chaparral scrub is an intermediate vegetation community that contains hard, woody shrubs and trees typical of chaparral communities and drought-deciduous, soft-woody shrubs typical of sage scrub communities. This vegetation community ranges in height from approximately three to 10 feet and is typically dominated by California sagebrush, chamise (*Adenostoma fasciculatum*), southern

mountain lilac (*Ceanothus foliosus*), toyon (*Heteromeles arbutifolia*), and laurel sumac (*Malosma laurina*). This community has adapted to repeated fires by stump sprouting. This vegetation community is found in the outer coast ranges and Peninsular Range, from Big Sur south to Baja California, Mexico (Holland 1986).

A total of 196.5 acres of Riversidean sage/chaparral scrub occur throughout the project site, south of I-10 (Appendix A: Photographs 1 and 2). This area is primarily composed of native shrub and tree species such as chamise, California sagebrush, California buckwheat, southern mountain lilac, toyon, laurel sumac, Nuttall's scrub oak (*Quercus dumosa*), white sage (*Salvia apiana*), and black sage (*Salvia mellifera*). The understory of this vegetation community is primarily composed of native species such as green everlasting (*Gnaphalium californicum*), wild cucumber (*Marah macrocarpus*), and ashy spikemoss (*Selaginella cinerascens*) as well as non-native species such as wild oat, ripgut grass, and poison hemlock (*Conium maculatum*).

4.2.3 Non-Native Grassland/Riversidean Sage Scrub

Non-native grassland/Riversidean sage scrub is a vegetation community that generally supports a few of the representative native plant species found in undisturbed Riversidean sage scrub; however, this vegetation community contains a relatively lower percentage and diversity of these low-growing, aromatic, drought-deciduous soft-woody shrubs and a higher percentage of non-native grasses and weedy species.

A total of 50.7 acres of non-native grassland/Riversidean sage scrub occur in the eastern portion of the project site (Appendix A: Photograph 3). The dominant non-native species within this vegetation community include grasses such as wild oat, ripgut grass, smooth brome (*Bromus hordeaceus*), and Italian ryegrass as well as other herbaceous weedy plant species such as star-thistle (*Centaurea melitensis*) and Russian thistle (*Salsola tragus*). The dominant native shrub species within this vegetation community include California sagebrush, California buckwheat, interior goldenbush, and deerweed.

4.2.4 Riversidean Succulent Scrub

Riversidean succulent scrub is a vegetation community comprised of low-growing, aromatic, drought-deciduous soft-woody shrubs that have an average height of approximately three to four feet. This vegetation community is similar in species composition to Riversidean sage scrub, except that it contains a high concentration of cactus species. This community typically is found on dry south- and west-facing xeric slopes where moisture availability is low.

A total of approximately 0.4 acre of Riversidean succulent scrub occurs in the northeastern corner of the project site (Appendix A: Photograph 4). This vegetation community is dominated by native California sagebrush, California buckwheat, brittlebush, and shore cactus (*Opuntia littoralis*). The understory of this vegetation community is primarily composed of non-native species such as wild oat, ripgut grass, and Russian-thistle.

4.2.5 Baccharis Scrub

Baccharis scrub is a vegetation community that is approximately four to five feet in height and dominated by broom baccharis (*Baccharis sarothroides*). This vegetation community typically is found in areas that have some form of past disturbance.

A total of 5.7 acres of baccharis scrub occur along the eastern boundary of the project site. This area is primarily composed of broom baccharis as well as non-native grasses and herbaceous species such as wild oat, ripgut grass, Russian-thistle, sweet fennel (*Foeniculum vulgare*), and black mustard (*Brassica nigra*).

4.2.6 Oak Woodland

Oak woodland is a vegetation community that is dominated by coast live oak (*Quercus agrifolia*). Other species within this community may include toyon, currant (*Ribes* spp.), laurel sumac, and Mexican elderberry (*Sambucus mexicana*). The herbaceous component of this community is continuous and often dominated by non-native, weedy species such as wild oat, ripgut grass, foxtail chess, and Italian ryegrass. Oak woodlands typically are found on north-facing slopes and shaded ravines on the coastal slopes of the southern California mountain ranges, generally below 4,000 feet (Holland 1986). This community generally is found in upland areas that are outside the influence of the drainages and streambeds. Oak woodlands in general are considered sensitive primarily because of their limited acreage, high wildlife value, gradual loss as a result of development, and lack of regeneration.

A total of 15.9 acres of oak woodland occur throughout the project site. The best-developed stands of oak woodland are found primarily at the base of slopes and in ravines within the undeveloped, non-native grasslands throughout the project site. Remnants of this vegetation community that occur in more urbanized portions of the project site are largely degraded by the presence of non-native exotic tree species such as acacia (*Acacia* spp.), Peruvian pepper tree (*Schinus molle*), and eucalyptus (*Eucalyptus* spp.).

4.2.7 Savannah Oak Woodland

This vegetation community is similar to oak woodland but contains a lower density and percentage of coast live oak and a higher density and percentage of non-native grasses and herbaceous weedy plant species such as wild oat, ripgut grass, smooth brome, Italian ryegrass, and star-thistle. Other species within this community may include toyon, currant, laurel sumac, and Mexican elderberry.

A total of 61.9 acres of savannah oak woodland occur within the eastern portion of the project site where the topography transitions from plateaus and steep hillsides to gently rolling hills (Appendix A: Photograph 5). Canopy cover in this vegetation community ranges from approximately 10 percent to 30 percent cover.

4.2.8 Southern Willow Scrub

Southern willow scrub is a dense riparian community dominated by broad-leafed, winter-deciduous trees such as willows (*Salix* spp.). This vegetation community is typically found along major drainages but also occurs in smaller drainages. The density of willows typically limits the growth of other species within the understory. The representative species typically grow in loose, sandy, or fine gravelly alluvium deposited near stream channels during flood flows. This community requires repeated flooding to prevent succession to community dominated by sycamores and cottonwoods (Holland 1986).

A total of 5.2 acres of southern willow scrub occur in the western and eastern portions of the project site (Appendix A: Photographs 6 and 7). This vegetation community is dominated by native willows and mulefat (*Baccharis salicifolia*), but also contains non-native species such as tree tobacco (*Nicotiana glauca*) and tamarisk (*Tamarix* sp.).

4.2.9 Scoured Drainage

This vegetation community contains little to no vegetation, as it typically is found along major drainages that are subject to frequent flood events, preventing the plants from growing to maturity. Therefore, vegetation cover is typically absent to sparse, and plants within this community are relatively young. This community contains loose, sandy, or fine gravelly alluvium which support a successional stage of southern willow scrub, mulefat, tree tobacco, and tamarisk.

A total of approximately 7.9 acres of scoured drainage occur within Yucaipa Creek, Wildwood Creek, and Wilson Creek throughout the project site (Appendix A: Photograph 7).

4.2.10 Mulefat Scrub

Mulefat scrub is a tall, herbaceous riparian scrub strongly dominated by mulefat. This vegetation community occurs along drainages with a fairly coarse substrate and a moderate depth to the water table. Mulefat scrub is developed and maintained from flooding or other disturbance but may change through successional processes to willow-cottonwood or sycamore-dominated riparian forest/woodland in the absence of disturbance. The community can also occur where dominant riparian scrubs and woodlands are disturbed or open (Holland 1986).

A total of 6.3 acres of mulefat scrub occur within the drainage north of I-10. The mulefat scrub within the project site is primarily composed of native species such as mulefat and Mexican elderberry as well as non-native species such as tree tobacco and curly dock (*Rumex crispus*). This vegetation community appears young and contains a scoured channel and a low diversity of plant species, most likely from frequent flood events that occur during high precipitation events.

4.2.11 Non-Native Woodland

This vegetation community typically refers to areas that are dominated by tree species that are non-native in origin. Within the project site, this vegetation community is composed of a variety of non-native and ornamental tree species such as Mexican palo verde (*Parkinsonia aculeate*), a variety of pine tree species (*Pinus* spp.), Peruvian pepper tree, tamarisk, eucalyptus, and fan palm (*Washingtonia* sp.).

A total of 2.0 acres of non-native woodland occur along the access road leading to the YVWD wastewater treatment facility within the southern portion of the project site.

4.2.12 Non-Native Grassland

Non-native grassland is a vegetation community characterized by a dense to sparse cover of annual grasses reaching to approximately three feet high. This vegetation community is often associated with numerous species of wildflowers, especially in years of favorable rainfall. Germination occurs with the onset of the late fall rains; growth, flowering, and seed-set occur from winter through spring. With a few exceptions, the plants are dead through the summer-fall dry season, persisting as seeds. Non-native grasslands are usually found on fine-textured, clay soils that range from being moist or waterlogged in the winter to being very dry during the summer and fall. Typically, the plant community is found in valleys and foothills throughout most of California (except for the north coastal and desert regions) at elevations below 4,000 feet (Holland 1986).

A total of 740.4 acres of non-native grassland occur throughout the project site. This is the most dominant vegetation community in the project site and is primarily composed of non-native grasses such as wild oat, ripgut grass, smooth brome, wild barley (*Hordeum murinum* ssp. *leporinum*), and Italian ryegrass as well as other herbaceous weedy plant species such as filaree (*Erodium* sp.), black mustard, star-thistle, fennel, cheeseweed (*Malva parviflora*), and Russian thistle. Native species within this community include dot-seed plantain (*Plantago erecta*), pepper grass (*Lepidium* sp.), green everlasting, and dove weed (*Eremocarpus setigerus*).

4.2.13 Agriculture

Agricultural land is defined broadly as land used primarily for production of food and/or fiber. This type of community occurs throughout California but is most widespread in and adjacent to the Central Valley and, to a lesser extent, in coastal plains and valleys (Anderson et al., 1976).

A total of 2.7 acres of agricultural land occur within the northwestern portion of the project site. It appears that the agricultural land is used primarily as a Christmas tree farm.

4.2.14 Disturbed Land

Disturbed land is defined as any land on which the native vegetation has been substantially altered by agriculture, construction, or other land-clearing activities, and the species composition and site conditions are not characteristic of the disturbed phase of one of the plant associations within the region. Such land typically is found in vacant lots, roadsides, construction staging areas, or abandoned fields and is dominated by non-native annual species and perennial broadleafed species. Typical plant species associated with disturbed land include Russian-thistle, sweet fennel, horseweed (*Conyza* spp.), black mustard, lamb's quarters (*Chenopodium album*), fountain grass (*Pennisetum setaceum*), and castor bean (*Ricinus communis*), among others. Non-native trees, such as eucalyptus and Peruvian pepper-tree, can also occur in this vegetation community.

A total of 6.6 acres of disturbed land occur within three locations throughout the project site. The largest area of disturbed land is on the southwest side of the project site. The other two smaller areas are in the northwest corner and the southeast corner of the project site. The disturbed land within the project site is primarily composed of bare ground as well as non-native weedy plant species such as scarlet pimpernel (*Anagallis arvensis*), wild oat, ripgut grass, black mustard, horehound (*Marrubium vulgare*), Russian-thistle, and sweet fennel.

4.2.15 Developed Land

Developed land supports no native vegetation and may be additionally characterized by the presence of man-made structures such as buildings or roads. The level of soil disturbance is such that only the most ruderal plant species or ornamental plant species would be expected.

A total of 54.7 acres of developed land occur throughout the project site. The developed land within the project site is composed of roads, residential development, a wastewater treatment plant, and other man-made structures.

4.2.16 Stock Pond

A stock pond is a manmade depression that has been created to capture water for use by cattle.

A 0.31 acre stock pond occurs in the southeastern portion of the project site.

4.2.17 Not Surveyed

Approximately 71.5 acres of land within the project site were not surveyed by ERA during the biological reconnaissance survey due to access issues and confidentiality requests by the land owner. This area of the project site occurs immediately south of I-10 and east of Live Oak Canyon Road (Figure 3).

4.3 ZOOLOGY

The majority of the project site is of moderate to high value for wildlife species. The variety of native vegetation communities provide habitat for a variety of wildlife species. The Riversidean sage/chaparral scrub in the project site is composed of large and small patches of moderate to high quality habitat for wildlife species. The riparian vegetation in the project site is not continuous but the existing patches are of moderate quality for wildlife species. A large portion of the project site is composed of non-native grassland, habitat that provides little value for many wildlife species yet provides moderate to high quality foraging habitat for birds of prey (raptors). Oak woodland and savannah oak woodland within the project site is patchy but relatively contiguous with adjacent patches and provides moderate to high quality habitat for wildlife species. The remaining vegetation communities contribute little value to the quality of wildlife habitat within the project site. A complete list of the wildlife species detected during the biological reconnaissance survey is provided in Appendix C. Sensitive wildlife species potentially occurring in the project site are discussed in the Sensitive Biological Resources section, below.

4.3.1 Butterflies

The distribution of butterflies is generally defined by the distribution of their larval food plants. Species common in Diegan coastal sage scrub, southern mixed chaparral, chamise chaparral, and non-native grassland are expected to be the most common butterfly species in the project site. The project site also has boulders that could be used as hill topping areas, which some butterfly species use to search for mates.

No butterfly species were observed during the survey. Common species expected to occur within the project site include western tiger swallowtail (*Papilio rutulus rutulus*), cabbage white (*Pieris rapae*), red admiral (*Vanessa atalanta rubria*), west coast lady (*Vanessa annabella*), mourning cloak (*Nymphalis antiopa antiopa*), California sister (*Adelpha bredowii*), and Behr's metalmark (*Apodemia mormo virgulti*).

4.3.2 Fish

Many creeks and waterways in southern California are ephemeral and subject to periods of high water flow in winter and spring and little to no water flow in late summer and fall. Fish species that potentially inhabit this environment have adapted to living in these naturally fluctuating conditions. However, natural causes – such as drought – and man-made causes – such as alteration of habitat and introduction of non-native species – often cause reduction in native fish populations in southern California.

Yucaipa Creek, Wildwood Creek, and Wilson Creek are three prominent drainages within the project site. Yucaipa Creek enters the project site from the northwest and connects with Wildwood Creek after crossing under I-10. Wildwood Creek flows in an east-west direction across the project, south of I-10. Wilson Creek flows in a southwestern direction across the western portion of the project site. All three of these drainages are tributary to San Timoteo Creek, which is located approximately four miles to the southwest of the project site. In addition, several smaller blue line drainages occur within the project site. At the time of the biological reconnaissance survey, Wilson Creek had minimal flowing water and Yucaipa Creek and Wildwood Creek had no flowing water. Therefore, no fish species were observed during the survey; however, a number of species have the potential to be present within the project site during periods of sufficient water flow, such as mosquito fish (*Gambusia affinis*) and fathead minnow (*Pimephales promelas*).

4.3.3 Amphibians

All amphibians require moisture for at least a portion of their life cycle. Some species are more dependent on water and require a permanent water source for habitat and reproduction, whereas other species have adapted to more arid conditions and are not completely dependent on a perennial or permanent source of water. These terrestrial amphibians generally avoid desiccation by burrowing beneath the soil or leaf litter during the dry season, emerging when temperatures are low and humidity is high, and breeding only once the rainy season has begun.

At the time of the biological reconnaissance survey, Wilson Creek had minimal flowing water and Yucaipa Creek and Wildwood Creek had no flowing water. These drainages are likely dry for much of the year but are subject to high rapid water flow during high precipitation and flooding events. As a result, vegetation tends to be absent or sparse and, when present, primarily consists of mulefat scrub or southern willow scrub. In addition, these drainages are highly incised, often containing sheer banks ranging from approximately 10 to 30 feet high. Because of the limited availability of suitable vegetation, leaf litter, and perennial water sources, few amphibians are expected to occur in the project site. However, the project site may provide suitable habitat for the western toad (*Bufo boreas*), Pacific treefrog (*Hyla regilla*), and California treefrog (*Hyla cadaverina*) during periods of sufficient water flow.

4.3.4 Reptiles

The diversity and abundance of reptile species within an area typically vary with vegetation community and character. Many reptiles are restricted to certain vegetation communities and soil types, although

some of these species will also forage in a variety of vegetation communities. Other species are more ubiquitous using a variety of vegetation types for foraging and shelter. Most species occurring in open areas use rodent burrows for cover and protection from predators and extreme weather conditions.

No reptiles were observed on the project site during the survey. However, common reptiles expected to occur within the project site include the western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), southern alligator lizard (*Gerrhonotus multicarinatus*), gopher snake (*Pituophis melanoleucus*), and western rattlesnake (*Crotalus viridis*).

4.3.5 Birds

The diversity of bird species varies with respect to the character, quality, and diversity of vegetation communities. Chaparral, sage scrub, woodland, and riparian communities typically support a moderate to high diversity of bird species. During the survey, 23 bird species were detected within the project site.

Chaparral and sage scrub vegetation supports bird species adapted to the dense vegetation that typifies these areas. These vegetation communities in the project site vary from low to high quality. Low quality habitats are generally sparse and disturbed by grazing and/or a dominance of non-native vegetation. Bird species observed in the sage scrub vegetation included the mourning dove (*Zenaida macroura marginella*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans semiatra*), California towhee (*Pipilo crissalis*), and lesser goldfinch (*Carduelis psaltria*).

Non-native grassland supports fewer bird species than most other vegetation types in the project site. However, these areas do provide important habitat for a number of species such as western burrowing owl and a variety of raptor species. Bird species observed in the grasslands on the project site included the killdeer (*Charadrius vociferous vociferous*), mourning dove, rooster (*Gallus domesticus*), American crow (*Corvus brachyrhynchos hesperis*), lark sparrow (*Chondestes grammacus strigatus*), western meadowlark (*Sturnella neglecta*), and Brewer's blackbird (*Euphagus cyanocephalus*).

Oak woodland typically provides high wildlife value for a variety of bird species. Birds observed in this vegetation community included Cooper's hawk (*Accipiter cooperii*), woodpecker (*Melanerpes* sp.), western kingbird (*Tyrannus verticalis*), and western meadowlark.

Riparian vegetation such as southern willow scrub and mulefat scrub is sparse in the project site; however, bird diversity and abundance is often high even in fragmented and isolated patches, as was observed in the project site. Birds observed in this vegetation community included the mourning dove, black phoebe, European starling (*Sturnus vulgaris*), lesser goldfinch, spotted towhee (*Pipilo maculatus*), and song sparrow (*Melospiza melodia*).

Raptors including Cooper's hawk, red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius*) were observed foraging over the grassland and sage scrub habitats within the project site. Another raptor that is likely to use the project site is the red-shouldered hawk (*Buteo lineatus*).

4.3.6 Mammals

Chaparral, sage scrub, oak woodland, and riparian communities typically provide cover and foraging opportunities for a variety of mammal species. Most mammal species are nocturnal, thus they must be detected during daytime surveys by observing their sign (i.e., tracks, scat, and burrows).

The California ground squirrel (*Spermophilus beecheyi*) was the only small ground dwelling mammal observed during the survey. Other small- to medium-sized mammals expected to occur within the project site include the deer mouse (*Peromyscus maniculatus*), California pocket mouse (*Chaetodipus californicus*), pocket gopher (*Thomomys bottae*), raccoon (*Procyon lotor*), spotted skunk (*Spilogale putorius*), striped skunk (*Mephitis mephitis*), Virginia opossum (*Didelphis virginiana*), and desert cottontail (*Sylvilagus audubonii*). The only large mammals observed within the project site were domesticated animals, including the domestic dog (*Canis familiaris*), domestic horse (*Equus caballus*), mule (*Equus*

asinus), and Texas longhorn cattle (*Bos taurus*). Other large mammals expected to occur within the project site include the coyote (*Canis latrans*) and southern mule deer (*Odocoileus hemionus fuliginata*).

Bats occur throughout most of southern California and may use the project site as foraging habitat. In addition, the oak trees provide potential roosting opportunities for several bat species. Because the survey was conducted during daylight hours, no bats were detected within the project site. Most of the bats that would potentially occur onsite are inactive during the winter and either hibernate or migrate, depending on the species. The big brown bat (*Eptesicus fuscus*), Mexican free-tailed bat (*Tadarida brasiliensis*), western pipistrelle (*Pipistrellus hesperus*), and hoary bat (*Lasiurus cinereus*) have the potential to occur in the project site based on availability of suitable habitat.

4.4 SENSITIVE BIOLOGICAL RESOURCES

Several sensitive vegetation communities, plant species, wildlife species, and wetland resources are known to occur or have the potential to occur within the project site. Local, state, and federal agencies regulate these sensitive biological resources and require an assessment of their presence or potential presence to be conducted in the project site prior to the approval of future development projects under the proposed Specific Plan. The California Natural Diversity Data Base (CNDDDB), administered by the CDFG, provides an inventory of plant and animal species as well as vegetation communities that are considered sensitive by state and federal resource agencies, academic institutions, and conservation groups such as the California Native Plant Society (CNPS). In general, the principal reason an individual taxon (species, subspecies, or variety) is considered sensitive is the documented or perceived decline or limitation of its population size or geographical extent and/or distribution resulting, in most cases, from habitat loss.

In addition, wildlife movement corridors or linkages are considered sensitive by local, state, and federal resource and conservation agencies. This is because these corridors allow wildlife to move between adjoining open space areas that are becoming increasingly isolated as open space becomes increasingly fragmented from urbanization, rugged terrain, or changes in vegetation (Beier and Loe 1992).

The sensitive vegetation communities, plant species, wildlife species, wildlife corridors, and wetland resources that are either known to occur or have a potential to occur within or immediately adjacent to the project site based on query of the CNDDDB, the presence of suitable habitat, and/or other requisite components are discussed below. In addition, definitions for these sensitive biological resources are provided in the following sections.

4.4.1 Sensitive Vegetation Communities

Sensitive vegetation communities are vegetation assemblages, associations, or subassociations that (1) support or potentially support sensitive plant or wildlife species, (2) have cumulative losses throughout the region, (3) have relatively limited distribution, or (4) have particular value to wildlife. Typically, these vegetation communities are considered sensitive whether or not they have been disturbed. Sensitive vegetation communities are regulated by various local, state, and federal resource agencies. The CNDDDB provides an inventory of vegetation communities that are considered sensitive by state and federal resource agencies, academic institutions, and conservation groups such as the CNPS. Determination of the level of sensitivity is based on the Nature Conservancy Heritage Program Status Ranks that rank both species and plant communities on a global and statewide basis according to the number and size of remaining occurrences as well as recognized threats such as proposed development, habitat degradation, and invasion by non-native species.

A total of approximately 83.0 acres of sensitive vegetation communities occur within the project site, including approximately 15.9 acres of oak woodland, approximately 61.9 acres of savannah oak woodland, and approximately 5.2 acres of southern willow scrub.

4.4.2 Sensitive Plants

For purposes of this report, plant species will be considered sensitive if they are: (1) listed or proposed for listing as threatened or endangered by state or federal agencies; (2) on List 1B (considered endangered throughout its range) or List 2 (considered endangered in California but more common elsewhere) of the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2006); or (3) considered rare, endangered, or threatened by the State of California (2006a) or other local conservation organizations or specialists. Noteworthy plant species are considered to be those which are on List 3 (more information about the plant's distribution and rarity needed) and List 4 (plants of limited distribution) of the CNPS Inventory. The CNPS is a state-wide resource conservation organization that has developed an inventory of California's sensitive plant species. The CNPS Listing is sanctioned by the CDFG and essentially serves as an early warning list of potential candidate species for threatened or endangered status.

A federally endangered species is defined as a species facing extinction throughout all or a significant part of its geographic range, and a federally threatened species is defined as a species that is likely to become endangered within the foreseeable future throughout all or a significant part of its range. The State of California defines an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy, a threatened species as 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, and a rare species as one present in such small numbers throughout its range that it may become endangered if its present environment worsens.

Species that are federally or state-listed threatened or endangered species and/or are designated as CNPS List 1B or 2 species are afforded a degree of protection that entails a permitting process, including specific mitigation measures to compensate for impacts to the species. Species that are proposed to be listed by the USFWS are treated similarly to listed species by that agency. Recommendations of the USFWS, however, are advisory rather than mandatory in the case of proposed species. Although plant species that are classified as List 3 or 4 species by CNPS are not provided legal protection, this designation is used to identify declining plant species that are considered sensitive by the CNPS but not considered threatened or endangered.

According to CNDDDB (State of California 2006c), no sensitive plant species are known to occur within the project site. No focused surveys for sensitive plants have been performed for this project; however, seven species have potential to occur within the project site based on observations during the biological reconnaissance survey, historical occurrence data, and the presence of suitable habitat and soils in the vicinity of the survey area. Table 3 summarizes all sensitive plant species that have potential to occur or that were analyzed to have the potential to occur within the project site. This table also includes species that are known historically from the region but are not expected to occur within the project site based on a lack of suitable habitat. Of those species potentially present, the 17 species that are federally and/or state-listed threatened or endangered, state-listed rare, and/or CNPS list 1B or 2 species are discussed in more detail in the following sections.

4.4.2.1 Chaparral sand-verbena

Chaparral sand-verbena (*Abronia villosa* var. *aurita*) is a CNPS List 1B species that blooms from January through August. This annual herb has gray foliage with pinkish purple flowers and is found at elevations between 300 and 5,300 feet. This species grows in sandy floodplains in inland, arid areas of coastal sage scrub and open chaparral. It primarily ranges within southern California and is found mostly in Riverside County. This species is threatened by flood control activities, vehicles, and development (CNPS 2006).

The project site contains suitable habitat and soils for this species. The species has been reported previously from central San Bernardino County and in the northwestern portion of Riverside County; therefore, chaparral sand-verbena has a low to moderate potential to occur within the project site. Focused surveys for this species are recommended.

**TABLE 3
SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR WITHIN THE
YUCAIPA FREEWAY CORRIDOR SPECIFIC PLAN PROJECT SITE**

Species Name	State/Federal Status	CNPS List	Habitat/Blooming Period	Potential to Occur
<i>Abronia villosa</i> var. <i>aurita</i> chaparral sand-verbena	—/—	1B	Annual herb; sandy floodplains in inland, arid areas of coastal sage scrub and open chaparral; blooms Jan–Aug; elevation 300–5,300 feet.	Low to moderate potential to occur. Suitable habitat and soils present. Focused surveys recommended.
<i>Allium marvinii</i> Yucaipa onion	—/—	1B	Perennial herb (bulbiferous); clay openings in chaparral; blooms Apr–May; elevation 2,500–3,600 feet; known from two occurrences in the Yucaipa and Beaumont areas, southern San Bernardino Mountains.	Not expected to occur. Project site contains unsuitable substrate and is outside species' known elevation range. Focused surveys not recommended.
<i>Allium munzii</i> (= <i>Allium fimbriatum</i> var. <i>munzii</i>) Munz's onion	ST/FE	1B	Perennial herb (bulbiferous); grassy openings in coastal sage scrub, chaparral, pinyon and juniper woodland on clay soils; blooms Mar–May; elevation 990–3,500 feet; only 13 populations known in Riverside County; endemic.	Not expected to occur. Project site lacks suitable substrate. Focused surveys not recommended.
<i>Ambrosia pumila</i> San Diego ambrosia	—/FE	1B	Perennial herb; chaparral, coastal sage scrub, valley and foothill grassland, creek beds, vernal pools, often in disturbed areas; blooms May–Sep; elevation less than 1,400 feet. Skunk Hollow.	Project site outside species' known geographic range. Not expected to occur; focused surveys not recommended.
<i>Arctostaphylos rainbowensis</i> rainbow manzanita	—/—	1B	Evergreen shrub; chaparral; rocky Cieneba, Las Posas soil, Pala; blooms Jan–Feb; elevation 700–2,200 feet.	Not expected to occur. Project site lacks suitable substrate. Focused surveys not recommended.
<i>Asplenium vespertium</i> western spleenwort	—/—	4	Perennial herb; chaparral, cismontane woodland, coastal sage scrub; rocky habitat; blooms Feb–Jun; elevation 500–3,000 feet.	Not expected to occur. Project site lacks suitable substrate. Focused surveys not recommended.
<i>Astragalus pachypus</i> var. <i>jaegeri</i> Jaeger's milk-vetch	—/—	1B	Shrub; chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland, sandy or rocky substrate; blooms Dec–Jun; elevation 1,200–3,000 feet. Possibly much rarer than presumed; six occurrences known west of Warner Springs.	Moderate potential to occur. Suitable habitat and soils present. Focused surveys recommended.

**TABLE 3
SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR WITHIN THE
YUCAIPA FREEWAY CORRIDOR SPECIFIC PLAN PROJECT SITE**

Species Name	State/Federal Status	CNPS List	Habitat/Blooming Period	Potential to Occur
<i>Atriplex coronata</i> var. <i>notatior</i> San Jacinto Valley saltbush	-/FE	1B	Annual herb; layas, mesic valley foothill grasslands, vernal pools; alkaline locations; blooms Apr–Aug; elevation 1,250–1,650 feet. Endemic to San Jacinto Valley.	Not expected to occur. Project site outside species' known geographic range. Focused surveys not recommended.
<i>Berberis nevinii</i> Nevin's barberry	-/-	1B	Evergreen shrub; chaparral, cismontane woodland, coastal sage scrub, riparian scrub, sandy or gravelly; blooms Mar–Apr; elevation 1,000–2,700 feet.	Moderate potential to occur. Suitable habitat and soils present. Focused surveys recommended.
<i>Brodiaea filifolia</i> thread-leaved brodiaea	SE/FT	1B	Perennial herb (bulbiferous); cismontane woodland, coastal sage scrub, playas, valley and foothill grassland, vernal pools, often clay; blooms Mar–Jun; elevation less than 4,000 feet.	Project site lacks suitable substrate. Not expected to occur; focused surveys not recommended.
<i>Brodiaea orcuttii</i> Orcutt's brodiaea	-/-	1B	Perennial herb (bulbiferous); closed cone coniferous forest, chaparral, meadows and seeps, valley and foothill grassland, vernal pools, mesic, clay soil; blooms May–Jul; elevation less than 5,300 feet.	Not expected to occur. Project site lacks suitable substrate. Focused surveys not recommended.
<i>Calochortus plummerae</i> Plummer's mariposa lily	-/-	1B	Perennial herb (bulbiferous); chaparral, coastal sage scrub, cismontane forest, lower coniferous forest, valley foothill grasslands; granitic/rocky locales; blooms May–Jul. Hybridizes with <i>C. weedi</i> var. <i>intermedius</i> .	Project site lacks suitable substrate. Not expected to occur; focused surveys not recommended.
<i>Caulanthus simulans</i> Payson's jewel-flower	-/-	4	Annual herb; chaparral, coastal sage scrub, sandy, granitic substrate; blooms Mar–Jun; elevation less than 7,300 feet.	Not expected to occur. Project site lacks suitable substrate. Focused surveys not recommended.
<i>Ceanothus ophiochilus</i> Vail Lake ceanothus	SE/FT	1B	Evergreen shrub; chaparral, gabbroic or pyroxenite outcrops; blooms Feb–Mar; elevation 1,900–3,500 feet.	Not expected to occur. Project site lacks suitable substrate. Focused surveys not recommended.
<i>Chorizanthe leptotheca</i> Peninsular spineflower	-/-	4	Annual herb; chaparral, coastal sage scrub, lower montane coniferous forest, alluvial fan or granitic substrate; blooms May–Aug; elevation 1,000–6,300 feet.	Suitable habitat and soils present. Moderate potential to occur; focused surveys not recommended due to sensitivity status.

**TABLE 3
SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR WITHIN THE
YUCAIPA FREEWAY CORRIDOR SPECIFIC PLAN PROJECT SITE**

Species Name	State/Federal Status	CNPS List	Habitat/Blooming Period	Potential to Occur
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spineflower	—/—	3	Annual herb; sandy or rocky openings in chaparral, coastal sage scrub; blooms Apr–Jun; elevation 120–5,600 feet.	Moderate potential to occur. Suitable habitat and soils present. Focused surveys not recommended due to sensitivity status.
<i>Chorizanthe polygonoides</i> var. <i>longispina</i> long-spined spineflower	—/—	1B	Annual herb; chaparral, coastal sage scrub, meadows and seeps, valley and foothill grassland, often clay; blooms Apr–Jul; elevation less than 4,800 feet.	Not expected to occur. Project site lacks suitable substrate. Focused surveys not recommended.
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i> summer holly	—/—	1B	Evergreen shrub; chaparral; blooms Apr–Jun; elevation less than 1,800 feet.	Not expected to occur. Project site outside species' known geographic range. Focused surveys not recommended.
<i>Convolvulus simulans</i> small-flowered morning glory	—/—	4	Annual herb; openings in chaparral, coastal sage scrub, valley and foothill grassland, clay substrate; blooms Mar–Jul; elevation less than 2,300 feet.	Not expected to occur. Project site lacks suitable substrate. Focused surveys not recommended.
<i>Dodecahema leptoceras</i> slender-horned spineflower	SE/FE	1B	Annual herb; chaparral, cismontane woodland, coastal sage scrub, alluvial fans and sandy areas; blooms Apr–Jun; elevation 600–2,500 feet. Few populations remain.	Low potential to occur. Marginal habitat and soils present. Focused surveys recommended.
<i>Dudleya multicaulis</i> many-stemmed dudleya	—/—	1B	Perennial herb; chaparral, coastal sage scrub, grassland, mostly clay soils; blooms Apr–Jul; elevation 2,600 feet.	Not expected to occur. Project site lacks suitable substrate. Focused surveys not recommended.
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i> Santa Ana River woollystar	SE/FE	1B	Perennial herb; chaparral and coastal sage scrub, riverbeds; alluvial fans, sandy or gravelly; blooms Jun–Aug; elevation 495–2,000 feet. Known from Santa Ana River, southwestern San Bernardino County.	Not expected to occur. Project site outside of species' known geographic range. Focused surveys not recommended.
<i>Githopsis diffusa</i> ssp. <i>filicaulis</i> Mission Canyon bluecup	—/—	3	Annual herb; chaparral, mesic and disturbed areas; blooms Apr–Jun; elevation 1,500–2,300 feet. Known in California from fewer than five occurrences.	Not expected to occur. Project site outside of species' known geographic range. Focused surveys not recommended.

TABLE 3
SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR WITHIN THE
YUCAIPA FREEWAY CORRIDOR SPECIFIC PLAN PROJECT SITE

Species Name	State/Federal Status	CNPS List	Habitat/Blooming Period	Potential to Occur
<i>Harpagonella palmeri</i> Palmer's grappling hook	—/—	4	Annual herb; chaparral, coastal sage scrub, valley and foothill grassland; blooms Mar–May; elevation less than 2,800 feet. Inconspicuous and easily overlooked.	Suitable habitat present. Moderate potential to occur; focused surveys not recommended due to sensitivity status.
<i>Holocarpha virgata</i> ssp. <i>elongata</i> graceful tarplant	—/—	4	Annual herb; coastal sage scrub, cismontane woodland, valley and foothill grassland, chaparral; blooms Jul–No.; elevation 200–3,600 feet.	Moderate potential to occur. Suitable habitat present. Focused surveys not recommended due to sensitivity status.
<i>Horkelia cuneata</i> ssp. <i>puberula</i> mesa horkelia	—/—	1B	Perennial herb; chaparral, coastal sage scrub, cismontane woodland; blooms Feb–Sep; elevation less than 2,700 feet.	Moderate potential to occur. Suitable habitat and soils present. Focused surveys recommended.
<i>Juglans californica</i> southern California black walnut	—/—	4	Deciduous tree; chaparral, cismontane woodland, coastal sage scrub; blooms Mar–May; elevation less than 3,000 feet. Walnut forest rare and declining community.	Not expected to occur. Marginal habitat present. Focused surveys not recommended.
<i>Lepechinia cardiophylla</i> heart-leaved pitcher sage	—/—	1B	Shrub; closed-cone coniferous forest, chaparral, cismontane woodland; blooms Apr–Jul; elevation 1,500–4,500 feet.	Marginal habitat present. Not expected to occur; focused surveys not recommended.
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's peppergrass	—/—	1B	Annual herb; coastal sage scrub, chaparral; blooms Jan–Jul; elevation less than 1,700 feet.	Moderate potential to occur. Suitable habitat and soils present. Focused surveys recommended.
<i>Muhlenbergia californica</i> California muhly	—/—	4	Perennial herb (rhizomatous); mesic, seeps, and streambeds in chaparral, coastal sage scrub, lower montane coniferous forest, meadows; blooms Jul–Sep; elevation 330–6,600 feet.	Moderate potential to occur. Suitable habitat present. Focused surveys not recommended due to sensitivity status.
<i>Myosurus minimus</i> ssp. <i>apus</i> little mousetail	—/—	3	Annual herb; vernal pools, perennial grasslands; blooms Mar–Jun; elevation 70–2,100 feet.	Not expected to occur. Marginal habitat present. Focused surveys not recommended.
<i>Pentachaeta aurea</i> golden-rayed pentachaeta	—/—	4	Annual herb; cismontane woodland, coastal sage scrub, lower montane coniferous forest, perennial grasslands, blooms Mar–Jul; elevation 300–6,100 feet.	Moderate potential to occur. Suitable habitat present. Focused surveys not recommended due to sensitivity status.

**TABLE 3
SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR WITHIN THE
YUCAIPA FREEWAY CORRIDOR SPECIFIC PLAN PROJECT SITE**

Species Name	State/Federal Status	CNPS List	Habitat/Blooming Period	Potential to Occur
<i>Phacelia sauveolens</i> ssp. <i>keckii</i> Santiago Peak phacelia	—/—	1B	Annual herb; closed cone coniferous forest, chaparral; blooms May–Jun; elevation 2,000–5,280 feet. Known from three occurrences.	Not expected to occur. Project site outside of species' known geographic range. Focused surveys not recommended.
<i>Quercus engelmannii</i> Engelmann oak	—/—	4	Tree; cismontane and riparian woodland, valley and foothill grasslands, chaparral; blooms Mar–May; elevation 400–4,300 feet. Protected on the Santa Rosa Plateau.	Moderate potential to occur. Suitable habitat present. Focused surveys not recommended due to sensitivity status.
<i>Satureja chandleri</i> San Miguel savory	—/—	1B	Perennial herb; chaparral, cismontane woodland, coastal sage scrub, riparian woodland, valley and foothill grassland; blooms Mar–May; elevation less than 3,500 feet.	Not expected to occur. Project site outside of species' known geographic range. Focused surveys not recommended.
<i>Scutellaria bolanderi</i> ssp. <i>austromontana</i> southern skullcap	—/—	1B	Perennial herb; chaparral, cismontane woodland, lower coniferous forest; blooms Jun–Aug.; elevation 2,000–6,500 feet.	Not expected to occur. Marginal habitat present. Focused surveys not recommended.
<i>Senecio aphanactis</i> rayless ragwort	—/—	2	Annual herb; chaparral, cismontane woodland, coastal sage scrub; blooms Jan–Apr; elevation less than 2,700 feet.	Moderate potential to occur. Suitable habitat and soils present. Focused surveys recommended.
<i>Senecio ganderi</i> Gander's ragwort	SR/—	1B	Perennial herb; chaparral, burn areas; blooms Apr–May; elevation 1,300–4,000 feet. Known from fewer than 15 occurrences.	Not expected to occur. Project site outside of species' known geographic range. Focused surveys not recommended.
<i>Sibaropsis hammittii</i> Hammitt's clay-cress	—/—	1B	Annual herb; openings in chaparral, valley and foothill grassland, clay soils; blooms Mar–Apr; elevation 2,400–3,500 feet.	Not expected to occur. Project site lacks suitable substrate. Focused surveys not recommended.

**TABLE 3
SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR WITHIN THE
YUCAIPA FREEWAY CORRIDOR SPECIFIC PLAN PROJECT SITE**

Species Name	State/Federal Status	CNPS List	Habitat/Blooming Period	Potential to Occur
<i>Tetracoccus dioicus</i> Parry's tetracoccus	--	1B	Deciduous shrub; chaparral, coastal sage scrub; blooms Apr–May; elevation 500–3,500 feet.	Not expected to occur. Project site outside of species' known geographic range. Focused surveys not recommended.

STATUS CODES

Federally- and State-listed

- FE = Federally listed endangered
- FT = Federally listed threatened
- SE = State listed endangered
- SR = State listed rare
- ST = State listed threatened

California Native Plant Society Listed

- 1A = Species presumed extinct.
- 1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
- 2 = Species rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.
- 3 = Species for which more information is needed. Distribution, endangerment, and/or taxonomic information is needed.
- 4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.

4.4.2.2 *Gander's ragwort*

Gander's ragwort (*Senecio ganderi*) is a state-listed rare plant and a CNPS List 1B species. This perennial herb blooms from April through May in the understory of mature mixed chaparral, or in open areas of recently burned chaparral. It is found at elevations ranging from 1,300 to 4,000 feet in the southwestern part of Riverside County and the foothills of western San Diego County. Its habitat is limited to areas of gabbro soils on Lawson, Sycuan, and Tecate peaks; Barber, Black, El Cajon, and McGinty mountains; and Magee Ridge. Gander's ragwort is in decline, and there have been fewer than 15 reported occurrences of this sensitive species. Habitat loss resulting from residential development is the main cause for this decline (State of California 2006d).

The project site is located outside of this species' known geographic range; therefore, Gander's ragwort is not expected to occur within the project site. A focused survey for this species is not recommended.

4.4.2.3 *Heart-leaved pitcher sage*

Heart-leaved pitcher sage (*Lepechinia cardiophylla*) is a CNPS List 1B species. This shrub blooms from April through July in closed-cone coniferous forest, chaparral, and cismontane woodland. Heart-leaved pitcher sage is found at elevations of 1,500 to 4,500 feet in Orange, Riverside, and San Diego counties in southern California and in Baja California, Mexico. This species is threatened by development, and there have been fewer than 10 reported occurrences in California (CNPS 2006).

The project site contains marginal habitat for this species; therefore, heart-leaved pitcher sage is not expected to occur within the project site. A focused survey for this species is not recommended.

4.4.2.4 *Jaeger's milk-vetch*

Jaeger's milk-vetch (*Astragalus pachypus* var. *jaegeri*) is a CNPS List 1B species. This shrub blooms from December through June in chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland, and sandy or rocky substrate. Jaeger's milk-vetch is endemic to California and is found at elevations of 1,200 to 3,000 feet in San Diego and Riverside counties. This species is threatened by urbanization, and only six known occurrences have been reported west of Warner Springs (CNPS 2006).

The project site contains suitable habitat and soils for this species. Although the species has not been previously reported from San Bernardino County, the species has been detected in the northwestern portion of Riverside County; therefore, Jaeger's milk-vetch has a moderate potential to occur within the project site. A focused survey for this species is recommended.

4.4.2.5 *Mesa horkelia*

Mesa horkelia (*Horkelia cuneata* ssp. *puberula*) is a CNPS List 1B species. This perennial herb blooms from February through September in sandy or gravelly substrates in chaparral, coastal sage scrub, and cismontane woodland. Mesa horkelia is found at elevations less than 2,700 feet in Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, San Luis Obispo, and Ventura counties. This species no longer exists in many of its historical locations (CNPS 2006).

The project site contains suitable habitat and soils for this species. Mesa horkelia has been previously reported from several locations in southwestern San Bernardino County, eastern Los Angeles County, and northern Riverside County; therefore, Mesa horkelia has a moderate potential to occur within the project site. A focused survey for this species is recommended.

4.4.2.6 *Nevin's barberry*

Nevin's barberry (*Berberis nevinii*) is a CNPS List 1B species. This evergreen shrub blooms from March through April along the margins of dry washes with sandy and gravelly substrates and alluvial shrub communities as well as on steep slopes with coarse soils and chaparral communities. The presence of

groundwater flow may be a habitat requirement for this species (NatureServe 2006). Nevin's barberry is found at elevations from 1,000 to 2,700 feet in Los Angeles, Riverside, San Bernardino, and San Diego counties. At least seven of the 32 known populations of this species have been extirpated, and the remaining 21 extant populations of this species are small with almost all of the populations having fewer than 10 to 20 individuals. Threats to this species include development, off-road vehicle activity, road maintenance, horseback riding, invasive exotic species, vandalism, and altered fire regimes (NatureServe 2006; CNPS 2006).

The project site contains suitable habitat and soils for this species. Nevin's barberry has been previously reported from several locations in southwestern San Bernardino County, eastern Los Angeles County, and northern Riverside County; therefore, Nevin's barberry has a moderate potential to occur within the project site. A focused survey for this species is recommended.

4.4.2.7 Parry's tetracoccus

Parry's tetracoccus (*Tetracoccus dioicus*) is a CNPS List 1B species. This deciduous shrub blooms from April through May in chaparral and coastal sage scrub habitats. Parry's tetracoccus is found at elevations from 500 to 3,500 feet and is known from fewer than 30 occurrences in Orange, Riverside, and San Diego counties in southern California and in Baja California, Mexico (NatureServe 2006). This species is threatened by agriculture and development (CNPS 2006).

The project site is located outside and north of this species' known geographic range; therefore, Parry's tetracoccus is not expected to occur within the project site. A focused survey for this species is not recommended.

4.4.2.8 Rayless ragwort

Rayless ragwort (*Senecio aphanactis*) is a CNPS List 2 species. This annual herb blooms from January through April in alkaline soils in chaparral, cismontane woodland, and coastal sage scrub. It is found at elevations less than 2,700 feet from Solano to San Diego counties including Santa Cruz Island and Baja California, Mexico (CNPS 2006).

The project site contains suitable habitat and soils for this species. Rayless ragwort has been previously reported from several locations in eastern Los Angeles County and northwestern Riverside County; therefore, rayless ragwort has a moderate potential to occur within the project site. A focused survey for this species is recommended.

4.4.2.9 Robinson's peppergrass

Robinson's peppergrass (*Lepidium virginicum* var. *robinsonii*) is a CNPS List 1B species. This annual herb blooms from January through July in coastal sage scrub and chaparral habitats. It is found at elevations less than 1,700 feet from San Bernardino to San Diego counties, including Santa Cruz Island and Baja California, Mexico. Robinson's peppergrass is threatened by erosion and feral herbivores (CNPS 2006).

The project site contains suitable habitat and soils for this species. Robinson's peppergrass has been reported previously from several locations in southwestern San Bernardino County, eastern Los Angeles County, and northwestern Riverside County; therefore, Robinson's peppergrass has a moderate potential to occur within the project site. A focused survey for this species is recommended.

4.4.2.10 San Diego ambrosia

San Diego ambrosia (*Ambrosia pumila*) is a federally endangered species and a CNPS List 1B species. This perennial herb blooms from May through September in chaparral, coastal sage scrub, valley and foothill grassland, creek beds, vernal pools, and often in disturbed areas. It is found at elevations less than 1,400 feet from 19 extant populations in Riverside and San Diego counties and in Baja California,

Mexico (NatureServe 2006). Twenty-three populations have been extirpated in San Diego County. This species is threatened by development, non-native plants, road maintenance, and trampling. In California, less than 20 occurrences of San Diego ambrosia have been reported (CNPS 2006).

The project site is located outside and north of this species' known geographic range; therefore, San Diego ambrosia is not expected to occur within the project site. A focused survey for this species is not recommended.

4.4.2.11 San Jacinto Valley saltbush

San Jacinto Valley saltbush (*Atriplex coronata* var. *notatior*) is a federally endangered species and a CNPS List 1B species. This annual herb blooms from April through August in playas, mesic valley foothill grasslands, vernal pools, and alkaline locations. This species is endemic to San Jacinto Valley in Riverside County and is found at elevations from 1,250 to 1,650 feet. San Jacinto Valley saltbush is known from fewer than 15 populations, primarily located in two drainages in western Riverside County. This species is threatened by flood control, agriculture, urbanization, vehicles, and pipeline construction (CNPS 2006).

The project site is located outside and north of this species' known geographic range; therefore, San Jacinto Valley saltbush is not expected to occur within the project site. A focused survey for this species is not recommended.

4.4.2.12 San Miguel savory

San Miguel savory (*Satureja chandleri*) is a CNPS List 1B species. This perennial herb blooms from March through May in rocky, gabbroic or metavolcanic substrates in chaparral, cismontane woodland, coastal sage scrub, riparian woodland, and valley and foothill grasslands. It is found at elevations less than 3,500 feet in Orange, Riverside, and San Diego counties and in Baja California, Mexico. San Miguel savory is threatened in these areas by residential development, agriculture, and recreational activities (CNPS 2006).

The project site is located outside and north of the species' known geographic range and does not contain suitable substrates; therefore, San Miguel savory is not expected to occur within the project site. A focused survey for this species is not recommended.

4.4.2.13 Santa Ana River woollystar

Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*) is a federally and state-listed endangered species and a CNPS List 1B species. This perennial herb blooms from June through August in sandy or gravelly substrate of river flood plains, terraced alluvial deposits, chaparral, and coastal sage scrub at elevations of 495 to 2,000 feet. Historically, it was known to extend along 60 miles of rivers in Orange, Riverside, and San Bernardino counties, but now plants occupy only about 18 linear miles of river floodplain along the Santa Ana River mainstream, City Creek, and Plunge Creek in Riverside County (State of California 2006d). There is only one known extended population which is fragmented and threatened by the Seven Oaks dam, development, vehicles, sand and gravel mining, flood control projects, and non-native plants (State of California 2006d; CNPS 2006).

The project site is located outside of the species' known geographic range; therefore, Santa Ana River woollystar is not expected to occur within the project site. A focused survey for this species is not recommended.

4.4.2.14 Santiago Peak phacelia

Santiago Peak phacelia (*Phacelia saueolens* ssp. *keckii*) is a CNPS List 1B species. This annual herb blooms from May through June in closed cone coniferous forest and chaparral. It is found at elevations

from 2,000 to 5,280 feet in Orange and Riverside counties; however, there are only three reported occurrences of this species (CNPS 2006).

The project site is located outside of the species' known geographic range; therefore, Santiago Peak phacelia is not expected to occur within the project site. A focused survey for this species is not recommended.

4.4.2.15 Slender-horned spineflower

Slender-horned spineflower (*Dodecahema leptoceras*) is a federally and state-listed endangered species and a CNPS List 1B species. This annual herb blooms from April through June in sandy to gravelly flats and slopes in chaparral, cismontane woodland, coastal sage scrub, and alluvial fans. It is found at elevation from 600 to 2,500 feet, from the foothills of the San Gabriel Mountains of Los Angeles County, the San Bernardino Mountains of San Bernardino County, and the San Jacinto Mountains of western Riverside County (eFloras 2006). Less than six reported occurrences are known to exist within the following eight watersheds: Santa Clara River, Big Tujunga Wash, Lytle Creek, Santa Ana River, San Jacinto River, Bautista Creek, Temescal Canyon, and Vail Lake (State of California 2006d). Current populations are in decline as a result of development, sand and gravel mining, flood control, proposed reservoir construction, vehicles, and non-native plants (CNPS 2006).

The project site contains marginal habitat and soils for this species. Slender-horned spineflower has been previously reported from several locations in southwestern San Bernardino County and northwestern Riverside County; therefore, slender-horned spineflower has a low potential to occur within the project site. A focused survey for this species is recommended.

4.4.2.16 Southern skullcap

Southern skullcap (*Scutellaria bolanderi* ssp. *austromontana*) is a CNPS List 1B species. This perennial herb blooms from June through August in chaparral, cismontane woodland, and lower coniferous forests. It is found at elevations of 2,000 to 6,500 feet in Los Angeles, Riverside, San Bernardino, and San Diego counties. This species is endemic to California (CNPS 2006).

The project site contains marginal habitat for this species; therefore, southern skullcap is not expected to occur within the project site. A focused survey for this species is not recommended.

4.4.2.17 Summer holly

Summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*) is a CNPS List 1B species. This evergreen shrub blooms from April through June in chaparral habitats. It is found at elevations less than 1,800 feet and is known from approximately six to 20 extant occurrences in Orange, southern Riverside, and San Diego counties and Baja California, Mexico (NatureServe 2006). This species is threatened by development and gravel mining (CNPS 2006).

The project site is located outside of the species' known geographic range; therefore, summer holly is not expected to occur within the project site. A focused survey for this species is not recommended.

4.4.3 Sensitive Wildlife

For purposes of this report, wildlife species will be considered sensitive if they are: (1) listed or proposed for listing as threatened or endangered by USFWS or CDFG; and/or (2) designated as California fully protected by CDFG. In addition, raptors (birds of prey) and active raptor nests are protected by the California Fish and Game Code 3503.5, which states that it is "unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird" unless authorized (CDFG 1991). The federal Migratory Bird Treaty Act (MBTA) – which restricts the killing, taking, collecting, selling, or purchasing of native bird species or their parts, nests, or eggs – also provides legal protection for almost all breeding bird species occurring in the U.S. Noteworthy wildlife species are those given the

informal designation of California species of special concern by CDFG. This designation applies to animals not listed under the federal Endangered Species Act or the California Endangered Species Act, but which nonetheless (1) are declining at a rate that could result in listing or (2) historically occurred in low numbers and known threats to their persistence currently exist.

A federally endangered species is defined as a species facing extinction throughout all or a significant part of its geographic range, and a federally threatened species is defined as a species that is likely to become endangered within the foreseeable future throughout all or a significant part of its range. The State of California defines an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy, a threatened species as 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 fully protected species as one that is rare or faces possible extinction, and a California species of special concern as one that is declining in numbers.

Species that are federally or state-listed threatened or endangered species are afforded a degree of protection that entails a permitting process, including specific mitigation measures to compensate for impacts to the species. Species that are proposed to be listed by the USFWS are treated similarly to listed species by that agency. Recommendations of the USFWS, however, are advisory rather than mandatory in the case of proposed species. As regulated by CDFG, fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock. Wildlife species classified as California species of special concern by CDFG are not typically provided legal protection; however, there are exceptions for some species, such as burrowing owl.

According to CNDDDB (State of California 2006c), no sensitive wildlife species are known to occur within the project site. No focused surveys for sensitive wildlife have been performed for this project; however, six species have the potential to occur within the project site based on observations during the biological reconnaissance survey, historical occurrence data, and the presence of suitable habitat in the vicinity of the project site. Table 4 summarizes all sensitive wildlife species that have the potential to occur within the project site. This table also includes species that are known historically from the region but are not expected to occur within the project site based on a lack of suitable habitat. Of those species potentially present, the 11 species that are federally and/or state-listed and/or fully protected species, as well as burrowing owl and various raptors, California species of special concern, are discussed in more detail in the following sections.

4.4.3.1 Arroyo toad

The arroyo toad (*Bufo californicus*) is a federally listed endangered species and a state species of special concern. It ranges along the coast of California, from San Luis Obispo County south into northwestern Baja California, Mexico. This nocturnal species inhabits sandy banks of washes, streams, and arroyos that have little or no vegetative cover. It breeds between March and June in deep pools (i.e., typically greater than one-foot deep) found along the edges of slow-moving streams with sandy, gravelly, or pebbly bottoms. Subadult and adult arroyo toads can range into surrounding uplands as far as 1.2 miles away from breeding habitat; however, studies have shown that this species is most commonly found within 0.3 miles of breeding habitat (USFWS 1999a). The main threats to the arroyo toad are degradation and loss of riparian habitat as well as predation by bullfrogs (*Rana catesbeiana*).

The project site contains moderate habitat for the arroyo toad; however, the species is not known to occur in Yucaipa Creek, Wildwood Creek, Wilson Creek, or other adjacent drainages within the vicinity of the project site (State of California 2006c). Therefore, the species has a low potential to occur within Yucaipa Creek, Wildwood Creek, and Wilson Creek within the project site. Focused surveys are recommended.

TABLE 4
SENSITIVE WILDLIFE SPECIES KNOWN OR POTENTIALLY OCCURRING
WITHIN THE YUCAIPA FREEWAY CORRIDOR SPECIFIC PLAN PROJECT SITE

Species Name	State/Federal Status	Habitat	Potential to Occur
Amphibians (Nomenclature from Collins 1997)			
<i>Bufo californicus</i> arroyo toad	CSC/FE	Open streamside sand/gravel flats. Quiet, shallow pools along stream edges are breeding habitat. Nocturnal except during breeding season (March to July).	Low potential to occur. Moderately suitable habitat present. Not known to occur in the vicinity of the project site or within adjacent drainages. Focused surveys recommended.
<i>Spea hammondi</i> western spadefoot	CSC	Vernal pools, floodplains, and alkali flats within areas of open vegetation.	Moderate potential to occur. Moderately suitable habitat present in and adjacent to drainages. Focused surveys not recommended due to sensitivity status.
<i>Rana aurora draytonii</i> California red-legged frog	CSC/FT	Slow-moving streams, ponds, etc., with dense vegetation cover providing shade over water surface.	Not expected to occur due to lack of suitable breeding habitat. Focused surveys not recommended.
<i>Rana muscosa</i> mountain yellow-legged frog	CSC	Streams in ponderosa pine, montane hardwood-conifer, and montane riparian.	Not expected to occur due to lack of suitable habitat. Focused surveys not recommended.
Reptiles (Nomenclature from Collins 1997)			
<i>Eumeces skiltonianus interparietalis</i> Coronado skink	CSC	Grasslands, open woodlands and forest, broken chaparral. Rocky habitats near streams.	Moderate potential to occur. Moderately suitable habitat present. Focused surveys not recommended due to sensitivity status.
<i>Phrynosoma coronatum blainvillii</i> San Diego horned lizard	CSC	Chaparral, coastal sage scrub with fine, loose soil. Partially dependent on harvester ants for forage.	Moderate potential to occur. Suitable habitat and ant colonies present. Focused surveys not recommended due to sensitivity status.
<i>Crotalus exsul</i> red diamond rattlesnake	CSC	Desert scrub and riparian, coastal sage scrub, open chaparral, grassland, and agricultural fields.	Moderate potential to occur. Moderately suitable habitat present. Focused surveys not recommended due to sensitivity status.
<i>Cnemidophorus hyperythrus beldingi</i> Belding's orange-throated whiptail	CSC	Chaparral, coastal sage scrub with coarse sandy soils and scattered brush.	Moderate potential to occur. Moderately suitable habitat present. Focused surveys not recommended due to sensitivity status.

**TABLE 4
SENSITIVE WILDLIFE SPECIES KNOWN OR POTENTIALLY OCCURRING
WITHIN THE YUCAIPA FREEWAY CORRIDOR SPECIFIC PLAN PROJECT SITE**

Species Name	State/Federal Status	Habitat	Potential to Occur
Birds (Nomenclature from American Ornithologists' Union 1998)			
<i>Elanus leucurus</i> white-tailed kite (nesting)	CFP	Nest in riparian woodland, oaks, sycamores. Forage in open, grassy areas. Year-round resident.	Moderate potential to nest in the southern willow scrub, oak woodland, and savannah oak woodland, and forage in the adjacent non-native grassland within project site. Focused surveys recommended during the nesting season prior to construction.
<i>Circus cyaneus</i> northern harrier (nesting)	CSC	Coastal lowland, marshes, grassland, agricultural fields. Migrant and winter resident, rare summer resident.	Not expected to occur because grassland and agricultural fields within project site not suitable for nesting. Focused surveys not recommended.
<i>Accipiter striatus</i> sharp-shinned hawk (nesting)	CSC	Open deciduous woodlands, forests, edges, parks, residential areas. Migrant and winter visitor.	Moderate potential to nest in the southern willow scrub, oak woodland, and savannah oak woodland, and forage in the adjacent non-native grassland within project site. Focused surveys recommended during the nesting season prior to construction.
<i>Accipiter cooperi</i> Cooper's hawk (nesting)	CSC	Mature forest, open woodlands, wood edges, river groves. Parks and residential areas. Migrant and winter visitor.	Observed within project site. Moderate potential to nest in the southern willow scrub, oak woodland, and savannah oak woodland, and forage in the adjacent non-native grassland. Focused surveys recommended during the nesting season prior to construction.
<i>Buteo swainsoni</i> Swainson's hawk (nesting)	ST	Plains, range, open hills, sparse trees. Uncommon spring migrant.	Not expected to nest due to unsuitable habitat. Low potential to occur as rare migrant but impacts to this species are not expected to occur. Species no longer breeds within southern California. Focused surveys not recommended.
<i>Buteo regalis</i> ferruginous hawk (wintering)	CSC	Require large foraging areas. Grasslands, agricultural fields. Uncommon winter resident.	Low potential to occur as a winter resident due to suitable foraging habitat; however, impacts to this species are not expected to occur. Focused surveys not recommended.

**TABLE 4
SENSITIVE WILDLIFE SPECIES KNOWN OR POTENTIALLY OCCURRING
WITHIN THE YUCAIPA FREEWAY CORRIDOR SPECIFIC PLAN PROJECT SITE**

Species Name	State/Federal Status	Habitat	Potential to Occur
<i>Aquila chrysaetos</i> golden eagle (nesting and wintering)	CSC/CFP/ BEPA	Require vast foraging areas in grassland, broken chaparral, or sage scrub. Nest in cliffs and boulders. Uncommon resident.	Not expected to nest due to unsuitable habitat. Low potential to occur as a winter resident due to limited foraging habitat; however, impacts to this species are not expected to occur. Focused surveys not recommended.
<i>Falco mexicanus</i> prairie falcon (nesting)	CSC	Grassland, agricultural fields, desert scrub. Uncommon winter resident. Rare breeding resident.	Not expected to nest due to unsuitable habitat. Low potential to occur as a winter resident. Focused surveys not recommended due to sensitivity status.
<i>Charadrius montanus</i> mountain plover (wintering)	CSC	Grasslands, fields, valleys. Localized winter resident.	Not expected to occur because the species is not known to winter in San Bernardino County. Focused surveys not recommended.
<i>Athene cunicularia</i> western burrowing owl (burrow sites)	CSC	Grassland, agricultural land, coastal dunes. Require rodent burrows. Declining resident.	Moderate potential to nest and forage. Suitable habitat throughout the project site. Focused surveys recommended.
<i>Asio otis</i> long-eared owl (nesting)	CSC	Riparian woodland, oak woodland, tamarisk woodland. Rare resident and winter visitor. Localized breeding.	Low potential to nest. Although suitable nesting habitat is available onsite, this species is rare within the region. Focused surveys recommended during the nesting season prior to construction.
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	SE/FE	Nesting restricted to willow thickets. Also occupies other woodlands. Rare spring and fall migrant, rare summer resident. Extremely localized breeding.	Not expected to occur. No suitable habitat available within the project site. Focused surveys not recommended
<i>Riparia riparia</i> bank swallow	ST	Steep riverbanks, gravel pits. Nest in colonies.	Not expected to nest due to unsuitable habitat. Low potential to occur as a rare migrant to southern California. Impacts to this species are not expected. Focused surveys are not recommended.

**TABLE 4
SENSITIVE WILDLIFE SPECIES KNOWN OR POTENTIALLY OCCURRING
WITHIN THE YUCAIPA FREEWAY CORRIDOR SPECIFIC PLAN PROJECT SITE**

Species Name	State/Federal Status	Habitat	Potential to Occur
<i>Campylorhynchus brunneicapillus couesi</i> coastal cactus wren	CSC	Maritime succulent scrub, coastal sage scrub with <i>Opuntia</i> thickets. Rare localized resident.	Low potential to occur. Although suitable nesting habitat is available onsite, this species is rare within the region. Focused surveys not recommended due to sensitivity status.
<i>Polioptila californica californica</i> coastal California gnatcatcher	CSC/FT	Coastal sage scrub, maritime succulent scrub. Resident.	Moderate potential to occur. A variety of suitable habitats occur within the project site. Focused surveys recommended.
<i>Lanius ludovicianus</i> loggerhead shrike	CSC	Open foraging areas near scattered bushes and low trees.	High potential to occur. Suitable habitat occurs throughout the project site. Focused surveys not recommended due to sensitivity status.
<i>Vireo bellii pusillus</i> least Bell's vireo (nesting)	SE/FE	Willow riparian woodlands. Summer resident.	Low potential to occur because of limited nesting and foraging habitat. Focused surveys recommended.
<i>Dendroica petechia brewsteri</i> yellow warbler (nesting)	CSC	Breeding restricted to riparian woodland. Spring and fall migrant, localized summer resident, rare winter visitor.	Moderate potential to occur because of moderately suitable nesting and foraging habitat. Focused surveys not recommended due to sensitivity status.
<i>Icteria virens</i> yellow-breasted chat (nesting)	CSC	Dense riparian woodland. Localized summer resident.	Low potential to occur because of limited suitable nesting and foraging habitat. Focused surveys not recommended due to sensitivity status.
<i>Aimophila ruficeps canescens</i> southern California rufous-crowned sparrow	CSC	Coastal sage scrub, chaparral, grassland. Resident.	Moderate potential to occur. A variety of suitable habitats occur within the project site. Focused surveys not recommended due to sensitivity status.
<i>Amphispiza belli belli</i> Bell's sage sparrow	CSC	Chaparral, coastal sage scrub. Localized resident.	Moderate potential to occur. A variety of suitable habitats occur within the project site. Focused surveys not recommended due to sensitivity status.
<i>Agelaius tricolor</i> tricolored blackbird	CSC	Freshwater marshes, agricultural areas, lakeshores, parks. Localized resident.	Low potential to occur because of limited habitat. Focused surveys not recommended due to sensitivity status.

**TABLE 4
SENSITIVE WILDLIFE SPECIES KNOWN OR POTENTIALLY OCCURRING
WITHIN THE YUCAIPA FREEWAY CORRIDOR SPECIFIC PLAN PROJECT SITE**

Species Name	State/Federal Status	Habitat	Potential to Occur
Mammals (Nomenclature from Jones et al. 1982)			
<i>Euderma maculatum</i> spotted bat	CSC	Wide variety of habitats. Caves, crevices, trees.	Low potential to forage. Not expected to roost because of lack of suitable habitat within the project site. Focused surveys not recommended due to sensitivity status.
<i>Eumops perotis californicus</i> western mastiff bat	CSC	Woodlands, rocky habitat, arid and semiarid lowlands, cliffs, crevices, buildings, tree hollows.	Moderate potential to forage and roost. Focused surveys not recommended due to sensitivity status.
<i>Nyctinomops macrotis</i> big free-tailed bat	CSC	Rugged, rocky terrain. Roost in crevices, buildings, caves, tree holes.	Not expected to occur. Outside and north of known range. Focused surveys not recommended
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	CSC	Open areas of scrub, grasslands, and agricultural fields.	High potential to occur. Suitable habitat available throughout the project site. Focused surveys not recommended due to sensitivity status.
<i>Dipodomys stephensi</i> Stephens' kangaroo rat (SKR)	ST/FE	Grassland, open areas.	Low to moderate potential to occur. Suitable habitat available onsite; however, species has not been recorded in San Bernardino County in recent years. Focused surveys recommended.
<i>Dipodomys merriami parvus</i> San Bernardino Merriam's kangaroo rat (SBMKR)	CSC/FE	Open scrub vegetation (coastal sage scrub, chaparral, and desert) in sandy loam substrates of alluvial fans and floodplains.	Low potential to occur. Suitable habitat available onsite; however, only 7 populations are known to be extant. Focused surveys recommended.
<i>Chaetodipus fallax fallax</i> northwestern San Diego pocket mouse	CSC	West of mountains in southern California. Sparse, disturbed coastal sage scrub or grasslands with sandy soils.	Low to moderate potential to occur. Moderately suitable habitat available throughout the project site. Focused surveys not recommended due to sensitivity status; however, species will be included in surveys for SKR and SBMKR.

**TABLE 4
SENSITIVE WILDLIFE SPECIES KNOWN OR POTENTIALLY OCCURRING
WITHIN THE YUCAIPA FREEWAY CORRIDOR SPECIFIC PLAN PROJECT SITE**

Species Name	State/Federal Status	Habitat	Potential to Occur
<i>Chaetodipus fallax pallidus</i> pallid San Diego pocket mouse	CSC	Along eastern slope of coast range mountains.	Low to moderate potential to occur. Moderately suitable habitat available throughout the project site. Focused surveys not recommended due to sensitivity status; however, species will be included in surveys for SKR and SBMKR.
<i>Perognathus longimembris brevinasus</i> Los Angeles little pocket mouse	CSC	Desert riparian, scrub, wash. Coastal scrub and sagebrush. Localized.	Low to moderate potential to occur. Moderately suitable habitat available throughout the project site. Focused surveys not recommended due to sensitivity status; however, species will be included in surveys for SKR and SBMKR.
<i>Onychomys torridus ramona</i> southern grasshopper mouse	CSC	Alkali desert scrub and desert scrub preferred. Can also occur in succulent shrub, wash, and riparian areas; coastal sage scrub, mixed chaparral, sagebrush, low sage, and bitterbrush. Low to moderate shrub cover preferred.	Moderate potential to occur. Moderately suitable habitat available throughout the project site. Focused surveys not recommended due to sensitivity status; however, species will be included in surveys for SKR and SBMKR.

STATUS CODES

Federal and State listing

- FE Listed as endangered by the federal government
- FT Listed as threatened by the federal government
- SE Listed as endangered by the state of California
- ST Listed as threatened by the state of California

Other listing

- BEPA Bald and Golden Eagle Protection Act
- CFP California fully protected species
- CSC California Department of Fish and Game species of special concern

4.4.3.2 California red-legged frog

The California red-legged frog (*Rana aurora draytonii*) is a federally listed threatened species and a state species of special concern. This southern subspecies of the red-legged frog is found at elevations between sea level and 5,000 feet and ranges from northern California south into Baja California, Mexico (Jennings and Hayes 1994). The California red-legged frog prefers slow-moving, deep-water pools with overhanging willows as well as cattails (*Typha* sp.) and bulrushes (*Scirpus* sp.) along the margins of the pools. This species can be found in both permanent and ephemeral streams, but populations are unlikely to remain in ephemeral streams (Jennings and Hayes 1994; USFWS 1996). The California red-legged frog typically breeds from November through April and estivates in small-mammal burrows and beneath leaf litter during the remaining portion of the year. Commercial exploitation of this species as a source of frog legs led to a decline of the California red-legged frog population in the 1800s. Current threats include habitat alteration and predation by introduced species, including the non-native bullfrog and exotic fishes (Jennings and Hayes 1994).

The species is not known to occur within Yucaipa Creek, Wildwood Creek, Wilson Creek, or other adjacent drainages in the vicinity of the project site (State of California 2006c). The project site does not contain permanent slow-moving, deep-water pools or any other suitable breeding habitat for this species. Therefore, the California red-legged frog is not expected to occur within the project site, and focused surveys for this species are not recommended.

4.4.3.3 White-tailed kite

The nesting sites of the white-tailed kite (*Elanus leucurus*) are fully protected by the state. This raptor occurs in coastal lowland areas from Oregon south to northern Baja California, Mexico (National Geographic Society 1983). Nesting occurs in riparian woodlands, oaks, or sycamore groves that border grasslands or open fields (Unitt 1984). This species is known to roost in large communal groups (Unitt 1984). The white-tailed kite forages over open areas and grasslands, feeding primarily on small rodents and insects (National Geographic Society 1983). White-tailed kite populations in southern California have declined as a result of the loss of nesting and foraging habitat.

The white-tailed kite has a moderate potential to nest in the southern willow scrub, oak woodland, and savannah oak woodland and to forage in the adjacent non-native grassland within project site. Focused surveys are recommended during the nesting season prior to the start of any construction activities.

4.4.3.4 Bank Swallow

The nesting colonies of bank swallows (*Riparia riparia*) are state-listed as threatened. Most breeding colonies are found along the banks of Central Valley streams, particularly along the Sacramento River. Bank swallows are casual migrants to coastal southern California in winter, arriving in early April, with numbers peaking in early May. Bank swallows nest colonially in vertical sandy banks or cliffs near streams, rivers, ponds, lakes, or the ocean. Loss of nesting habitat from channelization and stabilization of banks along rivers used for nesting is the primary reason for the decline of the species in California (Zeiner et al. 1990).

The project site does not contain suitable nesting habitat for the bank swallow. In addition, the species is a rare migrant to southern California. Therefore, the species is not expected to nest within the project site. Focused surveys are not recommended.

4.4.3.5 Coastal California gnatcatcher

The coastal California gnatcatcher (*Polioptila californica californica*) is a federally listed threatened species and a state species of special concern. It is a resident species found on the coastal slopes of southern California, ranging from Ventura County south into Baja California, Mexico (Atwood and Bontrager 2001). This species typically occurs in coastal sage scrub habitat, although chaparral, grassland, and riparian woodland habitats are used where they occur adjacent to sage scrub. Breeding

occurs from February through August, and nests are constructed most often in California sagebrush. The primary cause of decline in the coastal California gnatcatcher is habitat loss and degradation.

The Riversidean sage/chaparral scrub provides moderate nesting and foraging habitat for the coastal California gnatcatcher. The Riversidean sage scrub and Riversidean sage scrub/non-native grassland within the project site provides marginal nesting and foraging habitat for coastal California gnatcatcher. The coastal California gnatcatcher has a moderate potential to occur within the Riversidean sage/chaparral scrub; therefore, focused surveys for coastal California gnatcatcher are recommended to determine the presence or absence of this species within the project site.

4.4.3.6 Golden eagle

The golden eagle (*Aquila chrysaetos*) is a federally protected species under the Bald and Golden Eagle Protection Act, is a CDFG species of special concern, and is a fully protected species by the state of California. This eagle occurs throughout the United States and is a rare resident in southern California, where they are occasionally known to nest on cliffs or in large trees in the foothills and coastal lowlands. This species forages over large areas of grassland and open chaparral or sage scrub where they primarily prey upon rabbits and ground squirrels. Many golden eagle territories in the coastal lowlands and foothills have been eliminated in recent years by urbanization, agricultural development, and other human disturbances (Unitt 1984).

The project site contains limited foraging habitat but does not contain suitable nesting habitat. Therefore, there is a low potential for this species to occur within the project site as a winter resident due to limited foraging habitat; however, impacts to this species are not expected to occur. Focused surveys are not recommended.

4.4.3.7 Least Bell's vireo

The least Bell's vireo (*Vireo bellii pusillus*) is a federally and state-listed endangered species. Its historical breeding range once extended from northern California south to northwestern Baja California, Mexico; however, its current distribution is now restricted to eight southern California counties, the majority occurring in San Diego County (USFWS 1998). The least Bell's vireo is found exclusively in riparian habitats - including cottonwood-willow woodlands and forests, oak woodlands, and mulefat scrub - and requires dense cover for nesting (USFWS 1998). It arrives at the breeding grounds in mid-March and remains until September or October. Populations of least Bell's vireo have declined drastically as a result of the extensive loss of riparian habitat to agricultural and urban development, including channelization and mining of streams, as well as nest parasitism by the brown-headed cowbird (*Molothrus ater*). In recent years, the population has increased as a result of extensive brown-headed cowbird trapping programs.

The southern willow scrub within the project site provides limited suitable nesting and foraging habitat for the least Bell's vireo; therefore, this species has a low potential to occur within the project site. Focused surveys for this species are recommended to determine the presence or absence of this species within the project site.

4.4.3.8 Southwestern willow flycatcher

The southwestern willow flycatcher (*Empidonax traillii extimus*) is a federally and state-listed endangered species. This migratory bird breeds in southern California, Arizona, New Mexico, extreme southern portions of Nevada and Utah, western Texas, and extreme northwestern Baja California, Mexico (USFWS 1995). The southwestern willow flycatcher is present in southern California in late spring and summer (Unitt 1984). This species requires mature willow thickets in riparian woodland habitat for breeding and nesting activities. Southwestern willow flycatchers are extremely sensitive to human activity in riparian areas. Threats to the southwestern willow flycatcher include loss of riparian habitat due to water diversion, flood control, urbanization, grazing, and invasion of non-native species. Parasitism by brown-

headed cowbirds has been a significant factor in the decline of this species in California, Arizona, and elsewhere (Sedgwick 2000).

The southwestern willow flycatcher has not been detected in the vicinity of the project site (State of California 2006c). The southern willow scrub within the project site does not contain appropriate conditions to support this species (i.e. it is low quality, narrow width, etc.). Therefore, this species is not expected to occur within the project site, and focused surveys are not recommended.

4.4.3.9 Swainson's hawk

Swainson's hawk (*Buteo swainsoni*) is a state-listed threatened species. This raptor formerly nested throughout most of California and was once described as the most common breeding hawk in the coastal lowlands. This species was once found throughout lowland California; however, the Swainson's hawk is currently restricted to portions of the Central Valley, Great Basin region, and small isolated patches of the high desert where suitable nesting and foraging habitat is still available. This species typically is found in plains, range, and open hills and nests in sparse trees in riparian areas. Swainson's hawk is a rare transient in southern California in the spring and fall (Unitt 1984). The main threat to Swainson's hawk populations is pesticide use in agricultural fields (Alsop 2001).

The species may occur as a rare migrant within the project site; however, this species no longer breeds within southern California because of a loss of foraging habitat. Therefore, Swainson's hawk may occur as rare migrant, but it is not expected to be impacted by the proposed project. Focused surveys are not recommended.

4.4.3.10 Western burrowing owl

The western burrowing owl is a state species of special concern. It is primarily restricted to the western United States and Mexico, and ranges throughout the coastal lowlands in grasslands, agricultural areas, and coastal dunes (Unitt 1984) and inland in desert scrub, grassland, and agricultural areas. Typical habitat for the western burrowing owl includes dry, open, short-grass areas often associated with burrowing mammals (Haug et al. 1993). The burrowing owl is a year-round resident in southern California and nests from March through August. Urbanization as well as the management of ground squirrel and prairie dog populations have greatly reduced the amount of suitable habitat for this species.

The project site contains moderate to high value nesting and foraging habitat for burrowing owl within the extensive non-native grasslands. Therefore, there is a moderate potential for this species to occur within the project site. Focused surveys for this species are recommended to determine the presence or absence of this species within the project site.

4.4.3.11 Stephens' kangaroo rat

The Stephens' kangaroo rat (*Dipodomys stephensi*) is a federally listed endangered and state-listed threatened species. The three distinct regions with Stephens' kangaroo rat populations include western Riverside County, western San Diego County, and central San Diego County. Stephens' kangaroo rat historically occurred in southwestern San Bernardino County, but this species is believed to be extirpated from that area (USFWS 1997a). Habitat for the Stephens' kangaroo rat includes open grasslands, fallow agricultural fields, and sparse coastal sage scrub vegetation types in areas with penetrable soils and a flat to fairly steep sloping topography (USFWS 1997a). This nocturnal species is found at elevations of 180 to 4,100 feet, with most populations located at elevations below 2,000 feet (USFWS 1997a). Filaree (*Erodium spp.*) frequently dominates the best Stephens' kangaroo rat habitat areas, especially during and shortly after the rainy season. Areas with dense grass cover are not suitable for Stephens' kangaroo rat (USFWS 1997a). The decline of this species is attributed primarily to habitat loss and fragmentation resulting from urban development and agriculture. Other factors contributing to loss of the species include off-road vehicles, rodent control, and predation by feral and domestic cats (USFWS 1997a).

The Stephens' kangaroo rat has a low to moderate potential to occur within the project site because suitable habitat occurs onsite and because it is historically – although not recently – known to occur within San Bernardino County. Thus, focused surveys are recommended to determine the presence or absence of this species within the project site.

4.4.3.12 San Bernardino Merriam's kangaroo rat

San Bernardino Merriam's kangaroo rat (*Dipodomys merriami parvus*) is a federally listed endangered species and a state species of special concern. This nocturnal species is known from San Bernardino, Riverside, and San Diego counties. Habitat for the San Bernardino Merriam's kangaroo rat includes arid or semi-arid coastal sage scrub, alluvial sage scrub, and chaparral with short grasses, open patches of bare ground, and sand, loam, sandy loam, or gravelly substrates. The species and its associated habitats typically occur on alluvial fans, floodplains, along washes, in adjacent upland areas, and in areas with historic braided stream channels. The range of the San Bernardino Merriam's kangaroo rat partially overlaps the distribution of the Stephens' kangaroo rat; however, since they both have different habitat requirements, they concentrated in different areas. The historic range of this species has been reduced by about 96 percent, from 25 historic locations to seven currently occupied sites (USFWS 2002). The decline of this species is attributed primarily to ongoing destruction, alteration, and fragmentation of habitat resulting from human activities.

This species has a low potential to occur within the project site. Although this species is known currently from only seven occupied sites, suitable habitat is present within the project site. Focused surveys are recommended to determine the presence or absence of this species within the project site.

4.4.4 Wildlife Dispersal

Wildlife movement corridors or linkages are considered sensitive by local, state, and federal resource and conservation agencies because these corridors allow wildlife to move between adjoining open space areas that are becoming increasingly isolated as open space becomes fragmented from urbanization, rugged terrain, or changes in vegetation (Beier and Loe 1992). Studies have concluded that many wildlife species would not likely persist over time because isolation through fragmentation would prohibit the infusion of new individuals and genetic information (MacArthur and Wilson 1967; Soule 1987; Harris and Gallagher 1989; Bennett 1990). However, corridors mitigate the effects of this fragmentation by: (1) allowing wildlife to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) on populations or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs (Noss 1983; Farhig and Merriam 1985; Simberloff and Cox 1987; Harris and Gallagher 1989).

Wildlife movement activities typically fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas or individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). The following terms can be used to refer to areas in which wildlife move from one area to another: (1) travel route, (2) wildlife corridor, and (3) wildlife crossing. A travel route is a landscape feature (such as a ridgeline, drainage, canyon, or riparian strip) within a larger natural habitat area that provides the least amount of topographic resistance in moving from one area to another, and therefore is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). A wildlife corridor is a habitat linkage that connects two or more habitat patches that would otherwise be fragmented or isolated from one another because of urban development or other areas unsuitable for wildlife. Travel routes and wildlife corridors generally contain suitable cover, food, and/or water to support species during movement. Wildlife crossings are small, narrow, relatively short passages that allow wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings are often in areas with reduced width along a movement corridor and are typically man-made structures such as culverts,

underpasses, drainage pipes, and tunnels that provide access across or under roads, highways, pipelines, or other physical obstacles.

Large open space areas that have few or no man-made or naturally occurring physical constraints to wildlife movement may not have wildlife corridors and may be large enough to maintain viable populations of species, provide adequate food, water, and cover, and provide a variety of travel routes (i.e., canyons, ridgelines, trails, riverbeds, and others) without the movement of wildlife into other large open space areas. However, once an open space area becomes constrained and/or fragmented as a result of urban encroachment, the remaining linkage area that connects the larger open space areas can act as a corridor as long as it provides adequate space, cover, food, and water, and does not contain obstacles or distractions (e.g., man-made noise, lighting, etc.) that would generally hinder wildlife movement.

The regional context of the project site is an important consideration in the analysis of wildlife movement because the project site is located approximately four miles south of the San Bernardino National Forest. The project site provides travel routes and crossings for local wildlife movement and for foraging, cover, and water resources; however, the project site is not expected to function as a regional wildlife corridor because the project site is immediately bounded by residential development, commercial development, roads, and highways to the north, east, and west. These surrounding urban features create a barrier preventing the movement of wildlife from adjacent areas, except from the south of the project site, where undeveloped open space, pastureland, and the Norton Younglove Reserve occur. Because the project site does not connect adjoining areas of open space, the project site simply serves as extension of this undeveloped land to the south. San Timoteo Creek, located approximately three miles south of the project site, and Little San Gorgonio Creek and Noble Creek, located approximately six miles east of the project site, are more likely to function as regional wildlife corridors in the area because they traverse more open space and terminate in the San Bernardino National Forest.

Although Yucaipa Creek, Wildwood Creek, and Wilson Creek, and ridgelines and valleys within the project site are not expected to function as a regional wildlife corridor, these features are expected to be used as travel routes and crossings for local wildlife movement and for foraging, cover, and water resources. The I-10 underpass within Yucaipa Creek may be used as a wildlife crossing for certain animals traveling between the northern and southern project site; however, this underpass is made up of a small culvert which would only accommodate small to moderately sized mammals, such as coyotes, opossums, raccoons, and amphibians, reptiles, and rodents. Although large mammals such as deer or mountain lions may still potentially exist within the northern and southern project sites, these animals would not be able to cross between the northern and southern project sites through the culvert.

4.4.5 Wetlands and Waters of the United States and California

Wetlands, riparian areas, drainages, and wetland buffer areas are considered sensitive by U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Game (CDFG). The project site contains several drainages that are potentially under the jurisdiction and regulatory requirements of these agencies. A formal wetland delineation was not performed within the project site but is recommended to more accurately assess and identify the boundary of these potentially jurisdictional drainages.

4.4.5.1 Jurisdictional Regulations

United States Army Corps of Engineers

In accordance with Section 404 of the Clean Water Act (CWA), the USACE has regulatory authority over the discharge of dredged or fill material into waters of the United States (U.S.), (including non-wetland waters of the U.S. and wetlands). Federal jurisdiction is dependant on a demonstrated nexus between the subject water feature and navigable waters or interstate commerce.

The USACE and U.S. Environmental Protection Agency (EPA) define wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and

that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions" (USACE 1987). To be considered a jurisdictional wetland under Section 404 of the CWA, an area must possess three wetland characteristics: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Atypical wetland areas (disturbed wetlands) and problem area wetlands (e.g., seasonal wetlands) may lack one or more of the three criteria, but could still be considered wetlands if background information on the previous condition of the area and field observations indicate that the missing wetland criteria were present before the disturbance and would occur under normal circumstances.

Non-wetland jurisdictional waters are defined as drainages, or portions thereof, that may lack hydrophytic vegetation or hydric soils, but have strong hydrology indicators such as the presence of seasonal flows and an ordinary high watermark. Hydric soil indicators may be missing because topographic position precludes ponding and subsequent development of hydric soils. Absence of wetland vegetation can result from frequent scouring due to rapid water flow. These types of jurisdictional waters are delineated by the lateral and upstream/downstream extent of the ordinary high watermark of the particular drainage or depression.

Regional Water Quality Control Board

The RWQCB is the primary agency responsible for protecting water quality in California. The RWQCB regulates discharges to surface waters under the Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act. RWQCB's jurisdiction extends to all "waters of the State" and to all "waters of the U.S.", including wetlands. Impacts to isolated wetlands are regulated by the RWQCB under the Porter-Cologne Water Quality Act.

California Department of Fish and Game

In accordance with sections 1600 to 1607 of the Fish and Game Code, CDFG regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. These sections discuss the process by which an individual, government agency, or public utility must notify CDFG prior to any activity that would substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake. CDFG regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFG. Following such notification, the CDFG must inform the individual, agency, or utility of the existence of any fish and wildlife resources that may be substantially adversely affected by the activity. The CDFG must also include a proposal for measures to protect fish and wildlife resources. The proposal is called a Streambed Alteration Agreement (i.e., 1602 Agreement for public agencies and utilities and 1603 Agreement for private party activities).

CDFG exerts jurisdiction over all waters of the State, such as streams and rivers (measured from bank to bank) and any "riparian" vegetation associated with the waters. Streams and rivers are defined by the presence of a channel bed and banks, and at least an intermittent flow of water. The term "riparian" vegetation refers to vegetation that occurs in and/or adjacent to a watercourse. Typical "riparian" vegetation includes willows, mulefat, western sycamores (*Platanus racemosa*), Fremont cottonwoods (*Populus fremontii*), cattails and other vegetation found in moist areas. CDFG jurisdictional areas are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. Frequently, CDFG jurisdiction is equal to or greater than USACE jurisdiction. In addition, CDFG may take jurisdiction over isolated wetlands and streambeds in cases where USACE may not.

4.4.5.2 Potential Jurisdictional Areas

A formal wetland delineation was not performed within the project site. However, the project site contains several drainages that are potentially under the jurisdiction and regulatory requirements of USACE, RWQCB, and CDFG. These drainages were roughly mapped by ERA biologists while conducting the biological reconnaissance survey and vegetation mapping on March 29 and 30, 2006. The following

paragraphs describe these drainages; however, a formal wetland delineation that follows the guidelines established by USACE (USACE 1987) is recommended to more accurately assess and identify the boundary of these potentially jurisdictional drainages.

The project site is located within the Santa Ana Watershed and its tributaries. The watershed covers approximately 2,800 square miles of land with about 700 miles of rivers and major tributaries. It includes Orange County and portions of Riverside, San Bernardino, and Los Angeles counties. Water flow to the watershed originates in the San Gabriel and San Bernardino mountain ranges and generally flows to the southwest, then south, where it ultimately discharges to the Pacific Ocean in Huntington Beach. San Timoteo Creek – located south of Calimesa and the proposed project site – is a tributary to the Santa Ana River and flows to the northwest.

Several waterways were identified and mapped during the biological reconnaissance survey and vegetation mapping that are potentially under the jurisdiction and regulatory requirements of USACE, RWQCB, and CDFG (see Figure 4). These potential jurisdictional areas within the project site include, but are not limited to, areas that contain hydrophytic vegetation (i.e., vegetation communities such as southern willow scrub and mulefat scrub), wetland hydrology (i.e., drainages such as Yucaipa Creek, Wildwood Creek, and Wilson Creek), and/or hydric soils. Upon review of the USGS Yucaipa quadrangle topographic map (USGS 1967) and the City of Yucaipa Master Plan of Drainage (Boyle Engineering 1993), Yucaipa Creek, Wildwood Creek, and Wilson Creek are identified as blue line drainages. These creeks flow roughly east to west/southwest across the project site. Many sections of Yucaipa Creek, Wildwood Creek, and Wilson Creek are severely eroded and appear to have been scoured of most vegetation during a recent flood event. However, other sections of the drainages contain verdant sections of riparian vegetation such as mulefat scrub and southern willow scrub. These vegetated and unvegetated sections of drainage may be included under the jurisdiction and regulatory requirements of USACE, RWQCB, and/or CDFG. These potentially jurisdictional communities include scoured drainage (approximately 7.9 acres), southern willow scrub (approximately 5.2 acres), and mulefat scrub (approximately 6.3 acres), as well as additional jurisdictional areas that may have not been mapped by ERA biologists (Figure 4). As mentioned previously, a formal wetland delineation will need to be performed to make a final determination on their jurisdictional status and boundaries.

5.0 CEQA THRESHOLDS OF SIGNIFICANCE

The criteria for determining significant impacts on biological resources were developed in accordance with Section 15065(a) of the CEQA Guidelines which states that a project may have a significant effect on the environment if the project has the potential to (1) substantially degrade the quality of the environment, (2) substantially reduce the habitat of a fish or wildlife species, (3) cause a fish or wildlife population to drop below a self-sustaining level, (4) threaten to eliminate a plant or animal community, and/or (5) reduce the number or restrict the range of an endangered, rare, or threatened species.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. A substantial impact is an impact that diminishes, or results in the loss of, a sensitive biological resource or that significantly conflicts with local, state, or federal resource conservation plans, goals, and/or regulations. Sometimes impacts can be locally adverse, but not significant. In such a case, the impacts may result in an adverse alteration of a local biological resource, but they may not substantially diminish or result in the permanent loss of an important resource on a population- or region-wide basis.

The following thresholds of significance are based on Appendix G of the CEQA Guidelines. Implementation of the proposed project may have potentially significant adverse impacts on biological resources if it would result in the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by the CDFG or the USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or the USFWS.
- Have a substantial adverse effect on state or federally protected wetlands as defined by USACE, CDFG, RWQCB, or California Coastal Commission, including but not limited to marsh, coastal, etc., through direct removal, filling, hydrological interruption or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance.
- Conflict with the provisions of any adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or other approved local, regional, or state HCP.

6.0 BIOLOGICAL IMPACTS

Biological resources may be either directly or indirectly impacted by a project. Direct and indirect impacts may furthermore be either permanent or temporary in nature. These impacts are defined below.

- **Direct Impacts:** Any alteration, disturbance, or destruction of biological resources that would result from project related activities such as clearing, grubbing, and grading is considered a direct impact. Examples include clearing vegetation, encroaching into wetlands, diverting surface water flows, fragmentating wildlife habitat, and the loss of individual species and/or their associated plant communities.
- **Indirect Impacts:** As a result of project related activities, biological resources may also be affected in an indirect manner. Examples include elevated noise levels, nighttime lighting, soil compaction, increased human activity, decreased water quality, the introduction of invasive wildlife (i.e., domestic cats and dogs) and plants, disruptions in local movement patterns for wildlife, and elevated fugitive dust levels that reduces plant photosynthesis, growth, and reproduction.
- **Permanent Impacts:** All impacts that result in the irreversible removal of biological resources are considered permanent. Examples include constructing a building or permanent road on an area containing biological resources.
- **Temporary Impacts:** Any impacts considered to have reversible effects on biological resources can be viewed as temporary. Examples include nighttime lighting, increased human activity, the generation of fugitive dust during construction, or the removal of vegetation for construction activities and subsequently allowing the natural vegetation to recolonize the impact area.

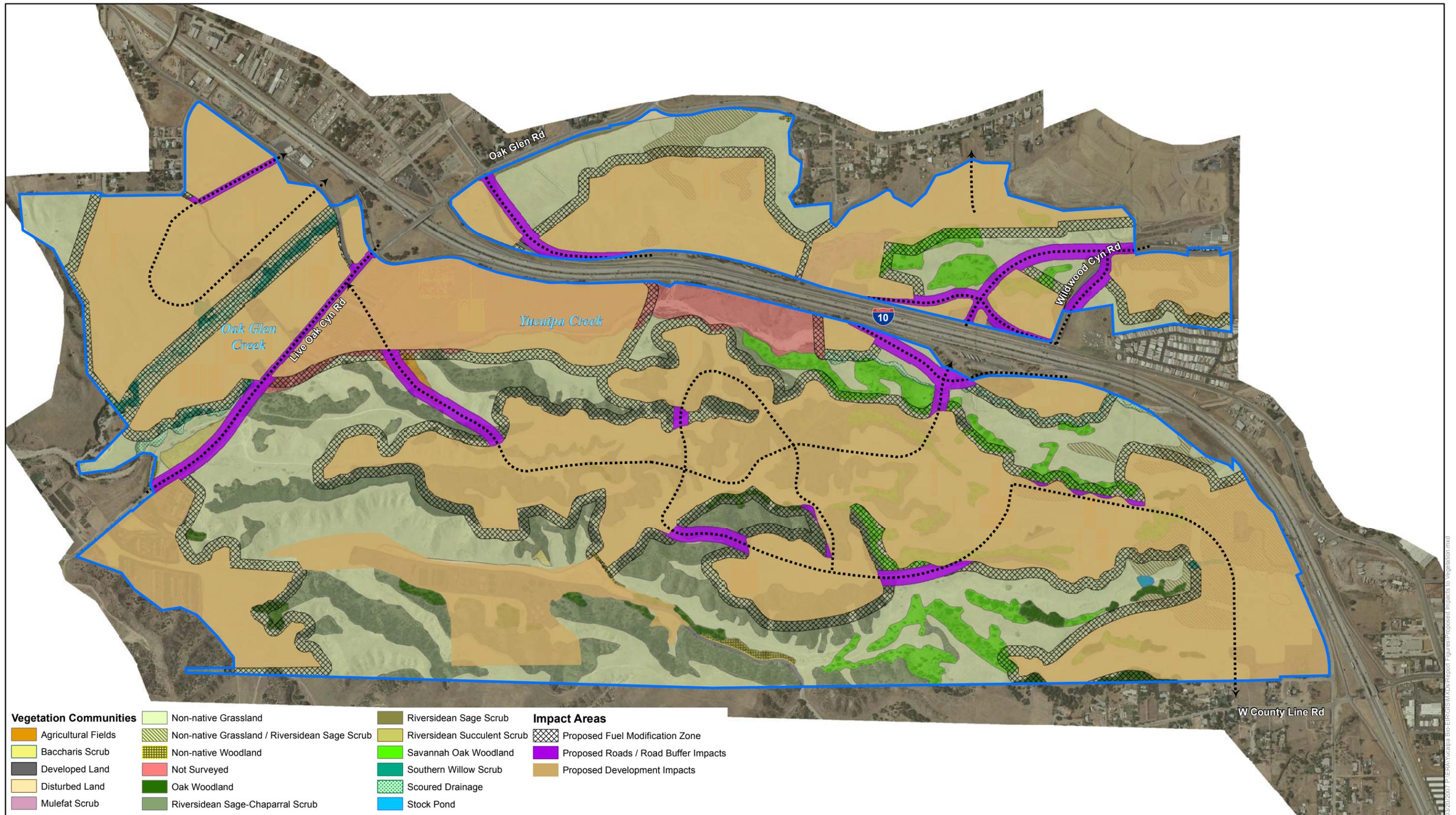
The proposed project will result in permanent and temporary impacts, and direct and indirect impacts, to a total of approximately 856.5 acres of land for residential, community commercial, regional commercial, business park, public facilities, and fuel modification (Figure 5 and Table 5). Approximately 148.6 acres of land proposed for impacts are associated with a fuel modification zone that is required around all proposed structures in accordance with the local fire ordinance (Section 85.020220 of the Yucaipa Development Code [YDC]). Open space is proposed to be set aside for protection of natural features, hillsides, ridgelines, and views, and to provide buffering of incompatible land uses. Impacts to biological resources are assessed according to the resources present or potentially present and the quality or condition of these resources as a result of activities before, during, and after construction that are associated with the proposed project. The significance of these impacts and mitigation required to reduce these impacts to below a level of significance is dependent on the sensitivity and associated legal status of the species in accordance with guidelines set forth in CEQA.

6.1 VEGETATION COMMUNITIES

The proposed project will result in permanent and temporary impacts, and direct and indirect impacts, to a total of approximately 856.5 acres composed of several vegetation communities and land types on the project site (Table 5 and Figure 5). Direct and permanent impacts to vegetation communities include impacts that will result in the permanent loss of a vegetation community from direct and permanent construction related activities and development from the proposed project. Direct and temporary impacts include impacts that will result in the temporary loss of a vegetation community from action such as grading or construction that may require a larger work area than the area designated for permanent impact. These areas of temporary impact have potential to be restored to their natural state through habitat restoration efforts following any project related activities. Indirect impacts such as increased dust, soil erosion, and runoff, could compromise plant respiration, photosynthesis, and growth in vegetation communities within or adjacent to the project site.

**TABLE 5
IMPACTS TO VEGETATION COMMUNITIES**

Vegetation Community	Impacts (Acres)			
	Development	Road	Fuel Modification	Total
Riversidean Sage Scrub	1.6	1.4	0.3	3.3
Riversidean Sage/Chaparral Scrub	77.4	4.4	27.8	109.6
Non-Native Grassland/ Riversidean Sage Scrub	35.0	0.1	6.6	41.7
Riversidean Succulent Scrub	--	--	0.3	0.3
Baccharis Scrub	0.6	2.4	--	3.0
Oak Woodland	5.2	0.1	3.9	9.2
Savannah Oak Woodland	18.8	1.6	10.7	31.1
Southern Willow Scrub	1.2	0.1	3.9	5.2
Drainage (Scoured)	0.1	0.5	5.1	5.7
Mulefat Scrub	6.2	--	0.1	6.3
Non-Native Woodland	0.1	--	0.2	0.3
Non-Native Grassland	415.9	23.4	84.8	524.1
Agricultural Fields	--	1.8	0.2	2.0
Disturbed Land	5.7	--	--	5.7
Developed Land	46.2	5.1	--	51.3
Stock Pond	--	--	--	--
Not Surveyed	52.5	0.5	4.7	57.7
Total	666.5	41.4	148.6	856.5



1 inch equals 900 feet
 0 225 450 900 Feet



Source: ERA

Impact Areas and Vegetation

Figure 5

Permanent and temporary impacts to non-native grassland, baccharis scrub, non-native woodland, agricultural fields, disturbed land, developed land, and stock pond are considered less than significant and, therefore, would not require mitigation. Permanent and temporary impacts to sensitive vegetation communities including oak woodland, savannah oak woodland, and southern willow scrub are considered adverse and significant. Impacts to sensitive vegetation communities should be minimized to the greatest extent practicable. Where impacts are unavoidable or cannot be minimized, mitigation is required.

It should be noted that these impacts include those that are associated with fuel modification (i.e., periodic clearance and maintenance of vegetation, etc.). These impacts have been evaluated as part of the permanent project impact area and not as conserved open space because the activities occurring in these areas can potentially reduce the ecological functions and values of the habitat for plants and wildlife by reducing the buffer between urban development and open space, and thereby increasing edge effect and habitat fragmentation. Approximately 148.6 acres of these impacts are associated with a permanent fuel modification zone, which is required within all flammable areas of native or naturalized vegetation surrounding proposed structures in accordance with the local fire ordinance (YDC Section 85.020220). The recommended width of the fuel modification zone shall be determined by the responsible Fire Authority in conjunction with the County Fire Warden, but in no case shall it be less than 100 feet in width as measured from the development perimeter. For the purpose of this impact analysis, the fuel modification zone was designated as 100 feet around all development, excluding roads. According to the fire ordinance, provisions shall be made for the continual maintenance of these fuel modification areas and, where feasible, these areas shall be designated as common open space rather than private open space. In addition, fuel modification areas shall also incorporate soil erosion and sediment control measures to alleviate permanent scarring and accelerated erosion.

Many studies have demonstrated that plant and wildlife respond negatively to fuel modification practices. In general, habitats with increased edge effect and habitat fragmentation have less diversity in wildlife and plants because these areas are more susceptible to noise, human intrusions, nighttime lighting, predation by domestic animals, and spread of invasive plants and wildlife species from adjacent urban areas. In addition, the wildlife in these areas are more susceptible to disruptions in their movement patterns. For example, Stralberg (2000) showed that abundance of migrant and resident birds in chaparral communities decreased closer to edges with urban developments, while abundance of urban-associated species increased. Similarly, Bolger et al. (1997) found decreased densities of sensitive bird species in response to increased edge and fragmentation in southern California chaparral. Many of the urban-associated bird species that may increase as a result of fuel modification practices and development are also nest predators (e.g., scrub jays, American crows, ravines, brown-headed cowbirds, skunks, opossums, raccoons, domestic pets, etc.), which may directly contribute to decreases in native bird populations (Langen et al. 1991; Hogrefe et al. 1998; Söderström et al. 1998). In addition, the removal of native vegetation for fuel modification results in the active promotion of invasive plant species that use cleared areas to encroach upon areas that may have been previously devoid of invasive plants. These invasive plant species can affect ecosystem structure and function by modifying fire regimes and nutrient cycling, increasing runoff and erosion, displacing native vegetation, and ultimately degrading functioning ecosystems (e.g., Mooney et al. 1986; Minnich and Dezzani 1998; Rundel 1998).

6.2 WILDLIFE

The proposed development will impact wildlife habitat and wildlife species that are not listed as threatened or endangered by USFWS or CDFG and not designated as California fully protected by CDFG. Wildlife (especially small mammals, amphibians, and reptiles with low mobility) may be inadvertently and directly killed during grading of the project site. Many birds and large mammals that have a higher mobility are less likely to be directly killed during project related activities. However, indirect impacts associated with the proposed project also may disrupt normal wildlife activities both inside and outside the limits of disturbance of the proposed project through increased night lighting; traffic; erosion; human presence; domestic pets, mesopredators (such as skunks, opossums, and raccoons), ravens, and brown-headed cowbirds (*Molothrus ater*); and litter and pollutants into adjacent wildlife habitat. In addition, the conversion of native vegetation communities to commercial and residential development will create conditions unsuitable to most wildlife species.

Impacts to wildlife that are generally not considered sensitive by USFWS or CDFG are considered adverse but less than significant because the impacts are not expected to reduce the wildlife populations below self-sustaining levels. An exception to this rule is the MBTA, which provides legal protection for nearly all breeding bird species (common and sensitive) occurring in the U.S.; therefore, impacts to nesting birds or to vegetation communities that support nesting birds cannot occur during nesting season, which generally falls between February 1 and August 30. Any impacts to nesting birds will be considered adverse and significant and will require mitigation.

6.3 SENSITIVE BIOLOGICAL RESOURCES

6.3.1 Sensitive Vegetation Communities

The proposed project, including fuel modification zones, will result in permanent and temporary impacts to a total of approximately 45.5 acres of sensitive vegetation communities in the project site, including 9.2 acres of oak woodland, 31.1 acres of savannah oak woodland, and 5.2 acres of southern willow scrub (Table 5 and Figure 5). Impacts to sensitive vegetation communities are considered adverse and significant according to CEQA, and impacts should be minimized to the greatest extent practicable. Where impacts to sensitive vegetation communities cannot be avoided, mitigation would be required to reduce the impacts to below a level of significance.

Direct and permanent impacts include impacts that will result in the permanent loss of a vegetation community from direct and permanent construction related activities and development from the proposed project. Direct and temporary impacts include impacts that will result in the temporary loss of a vegetation community from action such as grading or construction that may require a larger work area than the area designated for permanent impact. These areas of temporary impact have potential to be restored to their natural state through habitat restoration efforts following any project related activities. Indirect impacts such as increased dust, soil erosion, and runoff, could compromise plant respiration, photosynthesis, and growth in vegetation communities within or adjacent to the project site.

6.3.2 Sensitive Plants

Before impacts to sensitive plants can be assessed, focused surveys for the following species that are classified as CNPS List 1B or 2 will be required: chaparral sand-verbena, Jager's milk-vetch, Mesa horkelia, Nevin's barberry, rayless ragwort, Robinson's peppergrass, and slender-horned spineflower. These species have a potential to occur within the project site based on observations during the biological reconnaissance survey, historical occurrence data, and the presence of suitable habitat and soils in the vicinity of the survey area. Any direct or indirect impacts to plants that are classified as state-listed, federally listed, and/or CNPS List 1B or 2 plant species are considered adverse and significant according to CEQA. Impacts to sensitive plants should be minimized to the greatest extent practicable. Where impacts to sensitive plants cannot be avoided, mitigation would be required.

In addition, the City of Yucaipa enforces the Oak Tree Conservation Ordinance (YDC Section 89.0501). The Oak Tree Conservation Ordinance was established to ensure protection of oak trees by requiring a permit for any work involving oak trees as well as providing provisions that outline mitigation for impacts to oak trees and ensure the continued health of the remaining trees not impacted by project related activities. The City of Yucaipa does not allow the removal of or the encroachment into the protected zone of oak trees except in those cases where the impacts can be justified in accordance with the guidelines contained in the Oak Tree Conservation Ordinance. Specifically, the protected zone for oak trees is defined as the area within a circumference measured five feet outside of the dripline of the tree and extending inwards to the trunk of the tree, with the condition that the protected zone must always be at least 15 feet from the trunk of an oak tree (YDC Section 89.0501).

Oak tree surveys have not been conducted within the project site but will be required because the project site contains many oak trees within the oak woodland and savannah oak woodland vegetation communities, as well as many scattered throughout the project site outside of these vegetation communities. Measures required to obtain an oak tree permit are outlined in Section 7.2.

6.3.3 Sensitive Wildlife

Before impacts to sensitive wildlife can be assessed, focused surveys for the following species that are classified as federally listed, state-listed, state species of special concern, and/or fully protected species will be required: arroyo toad, coastal California gnatcatcher, least Bell's vireo, white-tailed kite, western burrowing owl, Stephens' kangaroo rat, and San Bernardino Merriam's kangaroo rat. These species have the potential to occur within the project site based on observations during the biological reconnaissance survey, historical occurrence data, and the presence of suitable habitat in the vicinity of the project site. Any direct and indirect impacts to these species are considered adverse and significant according to CEQA. In addition, the loss of an active raptor nest by removal of a tree or the abandonment of an active nest due to construction activity would be considered significant because active raptor nests are protected by CDFG according to Section 3503.5 of the California Fish and Game Code (CDFG 1991). Similarly, impacts to nearly any nesting bird or to vegetation communities that support nesting birds are considered significant according to the MBTA. Therefore, impacts to active raptors nests and nesting birds should not occur during the nesting season, which generally falls between February 1 and August 30. Impacts to sensitive wildlife should be minimized to the greatest extent practicable. Where impacts to sensitive wildlife cannot be avoided, mitigation would be required.

6.3.4 Wildlife Dispersal

The project site is not expected to function as a regional wildlife corridor or habitat linkage because of its immediate vicinity to residential development, commercial development, roads, and highways, and because it does not serve as a connection to adjoining areas of open space. The project site serves as an extension of the undeveloped open space to the south and, therefore, provides travel routes and crossings for local wildlife movement and areas for foraging, cover, and water resources. Therefore, the proposed project is expected to have a substantial impact on local wildlife movement and resident wildlife but is not expected to interfere with regional wildlife movement. Direct impacts on local wildlife movement and resident wildlife that may potentially disturb animal behavior may include the destruction of habitat and reduction in forage, cover, and water resources. Indirect impacts on local wildlife movement that may potentially disturb animal behavior include increased human presence, dust, noise, and light emissions. Direct and indirect impacts to local wildlife movement within the project site would be considered adverse; however, because the project site is not of high importance as a regional wildlife corridor or habitat linkage and because impacts to the project site would not substantially alter wildlife populations and movement in a region-wide context, these potential impacts are not considered significant to local or regional wildlife movement.

6.3.5 Wetlands and Waters of the United States and California

Although a formal wetland delineation was not performed within the project site, results from the biological reconnaissance survey indicate that the project site contains several drainages that are potentially under the jurisdiction and regulatory requirements of USACE, RWQCB, and CDFG (see Figure 4). These potentially jurisdictional areas include, but are not limited to, areas within the project site that contain hydrophytic vegetation (i.e., vegetation communities such as southern willow scrub and mulefat scrub), wetland hydrology (i.e., drainages such as Yucaipa Creek, Wildwood Creek, and Wilson Creek), and/or hydric soils. In addition, the USGS Yucaipa quadrangle topographic map (USGS 1967) and City of Yucaipa Master Plan of Drainage (Boyle Engineering 1993) identify Yucaipa Creek, Wildwood Creek, and Wilson Creek as blue line drainages within the project site.

Based on the vegetation mapping performed by ERA, it appears that approximately 5.7 acres of scoured drainage, 5.2 acres of southern willow scrub, 6.3 acres of mulefat scrub, as well as additional jurisdictional areas not mapped by ERA biologist, will be impacted by the proposed project. However, impacts to these potential jurisdictional areas cannot be accurately assessed until a formal wetland delineation is conducted to more accurately identify, evaluate, and map the extent of these potential jurisdictional areas. Direct impacts include impacts that would result in the temporary or permanent loss of a jurisdictional resource from construction related activities and development during the proposed project. Indirect impacts include impacts such as increased dust that could compromise plant respiration,

photosynthesis, and growth in a wetland vegetation community, and soil erosion and runoff that could result in the temporary or permanent loss of a jurisdictional resource. Any impacts to jurisdictional areas are considered significant. Impacts to jurisdictional areas should be minimized to the greatest extent practicable. Where impacts to jurisdictional areas cannot be avoided, mitigation would be required to reduce the impacts to below a level of significance. In addition, regulatory agencies often require that a buffer be maintained between jurisdictional waters and any development. The width of the buffer area can vary, depending on project design, but is typically 100 feet from the edge of the jurisdictional area.

7.0 MITIGATION MEASURES

Mitigation is required for impacts that are considered significant under CEQA, including significant impacts to vegetation communities considered sensitive and regulated by local, state, and federal resource agencies; state-listed, federally listed, and CNPS List 1B or 2 plant species; state listed, federally listed, and fully protected wildlife species, as well as burrowing owl, a California species of special concern; regional wildlife corridors; and resources considered jurisdictional by USACE, CDFG, and RWQCB. In addition, oak trees are protected by the City of Yucaipa under the Oak Tree Conservation Ordinance. Impacts to these sensitive biological resources should be avoided or minimized to the extent practicable.

The following mitigation measures address those adverse impacts determined to be significant, or are precautionary and relevant to the protection of biological resources to the extent practicable as part of the proposed Specific Plan. When referencing regulatory agencies herein, the relevant agencies include the USACE, CDFG, and RWQCB. For listed species both the USFWS and CDFG are appropriate. The mitigation measures apply to the applicant of future development projects under the Specific Plan.

- B-1 A wetland delineation will determine if the proposed development project will potentially impact wetlands or waters of the United States and California. If it does the applicant will prepare a formal wetland delineation to more accurately identify, evaluate, and map the extent of the streambed jurisdictional areas, the proposed project will modify under the jurisdiction of USACE, CDFG, and RWQCB. The delineation will be used to determine impacts and will be verified by the regulatory agencies. If a formal wetland delineation resulting from mitigation measure B-1 identifies impacts to wetlands or waters of the United States and California mitigation measures B-2, B-3, and B-4 will apply.
- B-2 Prior to grading permit the applicant will obtain a Section 404 permit authorization from USACE, a 1602 Streambed Alteration Agreement from CDFG, and a 401 State Water Quality Certification from RWQCB. Approved impacts to USACE, CDFG, and RWQCB jurisdictional areas would require mitigation through habitat creation, enhancement, and/or preservation to achieve a net-loss of jurisdictional resources, as determined by a qualified restoration specialist in consultation with the regulatory agencies.

Mitigation ratios and the specific location of mitigation lands will be determined in consultation with the appropriate regulatory agencies in accordance with the requirements of the federal Clean Water Act, federal wetland policies, and the California Fish and Game Code. The remaining undeveloped land within the Specific Plan site (excluding areas impacted from roads, development, and fuel modification) is planned as designated open space and may qualify as mitigation for impacts to jurisdictional areas.

- B-3 The applicant shall mitigate for temporary and permanent impacts to USACE jurisdictional wetlands and waters of the U.S., RWQCB jurisdictional waters, and CDFG jurisdictional areas by restoring habitats (i.e., southern willow scrub, scoured drainage, and mulefat scrub) upon acceptance of these temporary and permanent impacts by the resource agencies. Remaining undeveloped land within the proposed development project site (excluding areas impacted from roads, development, and fuel modification) designated as open space in the Specific Plan may qualify as mitigation for impacts to jurisdictional areas.

The applicant shall prepare and submit a Conceptual Streambed Restoration Plan (CSRP) to the City of Yucaipa for approval and to the regulatory agencies for review and concurrence. Habitat shall be mitigated on-site or within the same watershed, if feasible. The goal of the CSRP will be to recreate the functions and values of the habitat being affected. These mitigation requirements will be outlined in the CSRP prepared for this project, with monitoring requirements and specific criteria to measure the success of the restoration. Guidelines for the CSRP shall include:

- The mitigation site(s) shall have been evaluated and selected on the basis of their suitability for use as riparian mitigation areas.
- The mitigation shall provide procedures to prepare soils in the mitigation area, provide detailed seeding/planting mixtures, provide seeding/planting methods, appropriate irrigation and other procedures that will be used for successful revegetation.
- Impacts to jurisdictional waters and wetlands shall be avoided to the extent feasible in the design phase of the project.
- Specific mitigation ratios and performance criteria shall be stated in the CSRP.
- Maintenance and monitoring requirements shall be established, including quarterly and annual monitoring reports to USACE and CDFG.

The content of the CSRP will address the responsibilities and qualifications of the personnel to implement and supervise the plan, incorporate pertinent site selection criteria, provide for the site preparation and planting implementation program, provide a schedule for implementation, maintenance and monitoring, detail maintenance plan and guidelines, detail the monitoring plan and address long term preservation.

- B-4 The applicant shall prepare and submit a Conceptual Upland Mitigation Plan (CUMP) to the City of Yucaipa for approval and to CDFG for review and concurrence. The applicant shall be responsible for funding and implementing the CUMP. The goal of the CUMP will be to compensate for the impacts to sensitive upland vegetation communities (oak woodland and savannah oak woodland) through off-site acquisition of habitat, on-site preservation, enhancement, creation, and/or dedication of habitat, payment of fees into a mitigation bank or other appropriate measures to address the functions and values being impacted. The remaining undeveloped land within the proposed development project site (excluding areas impacted from roads, development, and fuel modification) designated as open space may qualify as mitigation for impacts to sensitive vegetation communities.

The content of the CUMP will address the responsibilities and qualifications of the personnel to implement and supervise the plan, incorporate pertinent site selection criteria, provide for the site preparation and planting implementation program if appropriate, provide a schedule for implementation, maintenance and monitoring, detail maintenance plan and guidelines, detail the monitoring plan and address long term preservation.

- B-5 Prior to grading the applicant will conduct focused surveys for the following species that are classified as CNPS List 1B or 2 during the appropriate blooming period as indicated in Table 3: chaparral sand-verbena, Jager's milk-vetch, Mesa horkelia, Nevin's barberry, rayless ragwort, Robinson's peppergrass, and slender-horned spineflower. These species have potential to occur within the Specific Plan site based on observations during the biological reconnaissance survey, historical occurrence data, and the presence of suitable habitat and soils in the vicinity of the survey area.
- B-6 If CNPS List 1B or 2 species are discovered during focused surveys, the applicant will develop a conceptual sensitive plant species mitigation plan. This mitigation plan will be prepared by a qualified restoration biologist and provide at a minimum the following information (1) design modifications or minimization measures that are consistent with the project's purpose; (2) appropriate protection measures for any adjoining conserved land within the Specific Plan site; (3) an evaluation of salvage, transplantation, restoration, enhancement, or other appropriate mitigation techniques to determine the most appropriate mitigation measures to offset impacts; and (4) monitoring and adaptive management measures for the mitigated plant species. The mitigation site shall be monitored and maintained by a qualified biologist for five years or until the plants have become fully established and can survive without supplemental irrigation.
- B-7 Prior to grading the applicant will conduct an oak tree survey to identify oak trees to be encroached upon, removed and/or relocated, and those within 100 feet of the project site or construction area. Oak trees will be identified, located, and tagged during the survey.

An oak tree report may be required depending on the scope and the nature of the project impact on the surrounding trees, as determined during the pre-application conference. In general, the requirements for an oak tree report may be waived in situations involving the removal of dead or hazardous trees and/or potential impacts to less than four trees. In situations requiring the submission of an oak tree report, the document shall be certified by the oak tree consultant to be true and correct and must be acceptable to the Community Development Director (Yucaipa Development Code Section 89.0501). The oak tree report will include information on the oak trees proposed for impacts, including location, diameter of trunk, diameter of canopy, height, and the health and condition of the subject oak trees. In addition, a site plan map must be submitted during the application process. The site plan map is required to show proposed grading and construction areas, oak tree locations, the exact location of the dripline of an oak tree.

- B-8 Prior to the removal of, or the encroachment into, the “protected zone” of oak trees, the applicant will first obtain an oak tree permit as stated in Section 89.0515(b)(1) of the Yucaipa Development Code. Specifically, the protected zone for oak trees is defined as the area within a circumference measured five feet outside of the dripline of the tree and extending inwards to the trunk of the tree, with the condition that the protected zone must always be at least 15 feet from the trunk of an oak tree (Yucaipa Development Code Section 89.0501). The applicant will obtain oak tree permits to allow encroachments within the dripline as needed. Requests for encroachments that do not exceed 50 percent of the dripline would qualify for administrative processing, whereas, requests for encroachments that exceeds 50 percent of the dripline would require Yucaipa Planning Commission review. (The guidelines of the Oak Tree Conservation Ordinance explain the processing steps involved in obtaining an oak tree permit, the information necessary to apply for an oak tree permit, the standard conditions for an oak tree permit, oak tree survey and reporting requirements, oak tree removal requirements, oak tree planting and replacement requirements, and the enforcement of the Oak Tree Conservation Ordinance).
- B-9 During final design the applicant will provide design guidelines as set forth in the Oak Tree Conservation Ordinance. Section 89.0501 of the Yucaipa Development Code provides design guidelines and evaluation criteria for projects that will impact or potentially impact oak trees. City of Yucaipa enforces the conservation of all healthy oak trees unless reasonable and conforming use of the property justifies removal, cutting, pruning and/or encroachment into the protected zone of an oak tree. To the extent possible, given the constraints of the property, the project must (1) preserve or minimize impacts to existing healthy oak trees; (2) eliminate or minimize encroachment of new construction in areas of oak trees; (3) minimize the percentage of encroachment from construction on oak trees; (4) avoid locating parking facilities and pedestrian walkways in close proximity to hazardous oak trees for safety reasons, unless it can be demonstrated that major surgery and a nutrient feeding program will restore the tree to a safe and vigorous condition, or the trees are located in minimal access areas such as drainages or steep slopes.
- B-10 The applicant will mitigate oak tree impacts through relocation and/or replacement through habitat creation, restoration, and enhancement efforts. Requests for relocations can be processed administratively only when the diameter of the tree does not exceed six inches when measured at a point 4.5 feet above the natural grade of the tree. Requests for relocation of trees with larger diameters must be processed and reviewed by the Yucaipa Planning Commission and the City Council. Any replacement trees from a nursery must be either coast live oak or valley oak (*Quercus lobata*). Other oak tree varieties must be approved in advance by the Community Development Department. All relocated or replaced trees shall be monitored and maintained by a qualified biologist for five years or until the plants have become fully established and can survive without supplemental irrigation.
- B-11 Prior to construction, a qualified biologist will determine if the following species that are classified as federally listed, state-listed, state species of special concern, and/or fully protected species have the potential to be present and be impacted by the proposed development project. If a species could be impacted, a qualified biologist will conduct focused surveys for the species:

arroyo toad, coastal California gnatcatcher, least Bell's vireo, white-tailed kite, western burrowing owl, Stephens' kangaroo rat, and San Bernardino Merriam's kangaroo rat. These species have the potential to occur within the Specific Plan site based on observations during the biological reconnaissance survey, historical occurrence data, and the presence of suitable habitat in the vicinity of the Specific Plan site.

The following sections provide a description of survey guidelines to be followed. If any of the species are determined to be present the applicant will coordinate with the United States Fish and Wildlife Service and the California Department of Fish and Game.

B-11.1 Arroyo Toad

Focused surveys will be conducted by a qualified biologist according to USFWS survey protocol (USFWS 1999b). A minimum of six surveys will be conducted during the breeding season (i.e., between March 15 and July 1), with at least one survey occurring in April, May, and June. Each survey is composed of a daytime and nighttime component, which must be conducted within the same 24-hour period.

B-11.2 Coastal California gnatcatcher

Focused surveys for coastal California gnatcatcher will be conducted by a permitted biologist to determine the presence or absence of this species within the proposed development project site. Focused surveys will be conducted according to USFWS survey guidelines (USFWS 1997b), which requires six surveys at least seven days apart during the breeding season (i.e., March 15 through June 30) or nine surveys at least fourteen days apart during the non-breeding season (i.e., June 30 through March 15). Surveys will be conducted by walking meandering transects throughout and adjacent to areas of suitable coastal California gnatcatcher habitat and playing a vocalization tape to elicit a response from the birds.

B-11.3 Least Bell's vireo

Focused surveys for this species will be conducted to determine the presence or absence of this species within the proposed development project site. Focused surveys for the species should be conducted according to USFWS survey guidelines (USFWS 2001), which requires eight surveys at least 10 days apart between April 1 and July 31. Surveys should be conducted by walking meandering transects throughout and adjacent to areas of suitable least Bell's vireo habitat.

B-11.4 Nesting raptors

To avoid potential impacts to nesting raptors, trees will be removed between September 1 and January 31, outside of the breeding season of local raptor species. If tree removal must be conducted during or within a few weeks of the breeding season (i.e., February 1 to August 30), a raptor nest survey should be conducted by a qualified biologist no longer than a week prior to any tree removal to determine if any raptor nests are present. If an active raptor nest is discovered, a buffer of 500 feet will be established around the tree until the young are independent of the nest site. No construction activity may occur within this buffer area until a biologist determines that the fledglings are independent of the nest.

B-11.5 White-tailed kite

To avoid potential impacts to this raptor, trees will be removed between September 1 and January 31, outside of the breeding season of this species. If tree removal must be conducted during or within a few weeks of the breeding season (i.e., February 1 to August 30), a nest survey will be conducted by a qualified biologist no longer than one week prior to any tree removal to determine if any nests are present. If an active nest is discovered, a buffer of 500 feet will be

established around the tree until the young are independent of the nest site. No construction activity may occur within this buffer area until a biologist determines that the fledglings are independent of the nest.

B-11.6 Western burrowing owl

Focused surveys for this species will be conducted to determine the presence or absence of this species within the proposed development project site. Focused surveys will follow the guidelines set forth in the *Burrowing Owl Survey Protocol and Mitigation Guidelines* (California Burrowing Owl Consortium 1993). The methodology consists of three phases: Phase 1 (habitat assessment); Phase 2 (burrow survey); and Phase 3 (burrowing owl survey). The initial habitat assessment will be conducted within all suitable habitats within the proposed development project site and a 500-foot buffer surrounding the Specific Plan site. The burrow surveys will be conducted by walking pedestrian survey transects through the proposed development project site, and all burrows and burrow complexes should be mapped. The focused protocol-level surveys for burrowing owl will be conducted during the peak of the burrowing owl breeding season of April 14 to July 15. These focused protocol-level surveys consist of four separate site visits to examine each mapped rodent burrow or burrow complex for burrowing owl sign (i.e., feathers, cast pellets, excrement, prey remains, eggshell fragments, etc.) and to observe each burrow at a fixed distance to assess the burrow for activity. These surveys will be conducted one hour before sunrise to two hours after sunrise and/or two hours before sunset to one hour after sunset. If no owls are observed or detected during these surveys, protocol-level surveys would be required for winter resident owls between December 1 and January 31.

B-11.7 Stephens' kangaroo rat

Focused surveys will be conducted to determine the presence or absence of this species within the proposed development project site. Focused surveys for this species must be conducted by a permitted biologist. These surveys consist of a focused habitat assessment for the species as well as trapping surveys. The trapping should be conducted over five consecutive nights between September 15 and February 15. Additional surveys may be necessary if more than one survey (i.e., more than 5 consecutive nights of trapping) are required to adequately determine presence/absence of these species and their distribution.

B-11.8 San Bernardino Merriam's kangaroo rat

Focused surveys will be conducted to determine the presence or absence of this species on the proposed development project site. The focused protocol-level surveys can be conducted simultaneously with the surveys for Stephens' kangaroo rat as they follow the same protocol, which consists of a habitat assessment and five consecutive nighttime trapping surveys. Additional surveys may be necessary if more than one survey (i.e., more than 5 consecutive nights of trapping) are required to adequately determine presence/absence of these species and their distribution.

B-12 To reduce the potential for the indirect impacts from urban runoff, the project Applicant shall implement the Best Management Practices (BMPs) required by the National Pollutant Discharge Elimination System (NPDES, Environmental Protection Agency), administered by the RWQCB.

B-13 A plan for the management of the fuel management zone shall be developed and submitted to the City of Yucaipa for review and approval prior to issuance of a grading permit. The management plan shall include access points, signage for trails and restricted uses, and appropriate fencing.

B-14 The applicant will ensure that the work limits will be staked, fenced, and/or marked with materials clearly visible to construction personnel to prevent encroachment upon sensitive vegetation communities; no construction access, parking, or storage of equipment or materials will be

permitted outside of these marked areas; access roads and work areas shall be periodically sprayed with water to reduce the potential for dust accumulation on the leaves of adjacent sensitive vegetation communities not proposed for impacts; and erosion and sediment control BMPs (i.e. such as silt fence, straw wattles, sand bags, etc) should be implemented and installed during the proposed Specific Plan to comply with all measures proposed in the Storm Water Pollution Prevention Plan (SWPPP).

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APPENDICES

**APPENDIX A
SITE PHOTOGRAPHS**



Photograph 1: Steep topography and flat plateaus with non-native grassland and Riversidean sage-chaparral scrub in western portion of site.



Photograph 2: Riversidean sage-chaparral scrub in western portion of site.

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Photograph 3: Non-native grassland/Riversidean sage scrub in northeastern portion of site.



Photograph 4: Riversidean succulent scrub in northeastern portion of site.

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Photograph 5: Savannah oak woodland, non-native grassland, and ephemeral drainage in southeastern portion of project site.



Photograph 6: Southern willow scrub in northwestern portion of project site.

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Photograph 7: Southern willow scrub and scoured drainage in northwestern portion of project site.



Photograph 8: Non-native grassland as actively grazed pasture land

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APPENDIX B
FLORAL COMPENDIUM FOR THE YUCAIPA FREEWAY CORRIDOR
SPECIFIC PLAN PROJECT SITE

Scientific Name	Common Name	Vegetation Community	Origin
<u>Gymnosperms</u>			
Pinaceae - Pine Family			
<i>Pinus</i> spp.	Pine	DEV, NNW	I
Selaginellaceae - Spike-Moss Family			
<i>Selaginella cinerascens</i> Maxon	Ashy spike-moss	RS/CS, RSUC	N
<u>Dicots</u>			
Anacardiaceae - Sumac Family			
<i>Malosma laurina</i>	Laurel sumac	RSS, RS/CS	N
<i>Rhus ovata</i> Wats.	Sugar bush	RS/CS	N
<i>Rhus trilobata</i> McClellan	Squaw bush	RS/CS	N
<i>Schinus molle</i> L.	Peruvian pepper tree	SWS, SD, BS, DIST, DEV, NNW	I
Apiaceae - Carrot Family			
<i>Conium maculatum</i> L.	Poison hemlock	RSS, RS/CS, NNG/RSS, NNG, DIST, AG	I
<i>Foeniculum vulgare</i> Mill.	Fennel	NNG/RSS, NNG, DIST, AG, NNW	I
Asteraceae - Sunflower Family			
<i>Artemisia californica</i> Less.	California sagebrush	RSS, RS/CS, RSUC, NNG/RSS, NNG	N
<i>Baccharis salicifolia</i> (Ruiz Lopez & Pavón) Pers.	Mulefat, seep-willow	SWS, SD, BS, NNW	N
<i>Baccharis sarothroides</i> A. Gray	Broom baccharis	BS, DIST	N
<i>Centaurea melitensis</i> L.	Tocolote, star-thistle	OW, SOW, RSS, RSUC, NNG/RSS, NNG, DIST, AG	I
<i>Chrysanthemum coronarium</i> L.	Garland, crown daisy	NNG, DIST, AG	I
<i>Cynara cardunculus</i> L.	Cardoon	NNG/RSS, NNG, DIST, AG	I
<i>Encelia farinosa</i> Torrey & A. Gray	Brittlebush, incienso	RSS, RSUC	N
<i>Ericameria linearifolia</i> (DC.) Urb & G. Weissow	Interior goldenbush	RSS, NNG/RSS, NNG	N
<i>Filago</i> sp.	Herba impia	OW, SOW, RSS, RSUC, NNG/RSS, NNG, DIST, AG	N
<i>Gnaphalium californicum</i> DC.	Green everlasting	OW, SOW, RSS, RSUC, NNG/RSS,	N

		NNG	
<i>Helianthus annuus</i> L.	Common sunflower	SD, NNG, DIST, AG	N
<i>Heterotheca grandiflora</i> Nutt.	Telegraph weed	NNG/RSS, NNG, DIST, AG	N
<i>Isocoma menziesii</i> (Hook. & Arn.) G. Nesom	Coast goldenbush	RSS, RSUC, NNG/RSS, NNG, DIST	N
<i>Lactuca serriola</i> L.	Prickly lettuce	NNG/RSS, NNG, DIST, AG	I
<i>Lasthenia californica</i> Lindley	Goldfields	NNG/RSS, NNG, AG	N
<i>Lessingia filaginifolia</i> (Hook. & Arn.) M.A. Lane var. <i>filaginifolia</i>	California-aster	NNG/RSS, NNG, AG	N
<i>Sonchus oleraceus</i> L.	Common sow thistle	SD, NNG/RSS, NNG, DIST, AG, NNW	I
<i>Xanthium strumarium</i>	Cocklebur	SWS, SD, NNG, DIST, AG, NNW	N
Boraginaceae - Borage Family			
<i>Amsinckia eastwoodiae</i> J.F. Macbr.	Fiddleneck	OW, SOW, RSS, RS/CS, RSUC, NNG/RSS, NNG, DIST, AG	N
Brassicaceae - Mustard Family			
<i>Brassica nigra</i> (L.) Koch.	Black mustard	RSS, RS/CS, RSUC, NNG/RSS, NNG, DIST, AG	I
<i>Hirschfeldia incana</i> (L.) Lagr.-Fossat	Short-pod mustard	NNG/RSS, NNG, DIST, AG	I
<i>Lepidium</i> sp.	Pepper grass	NNG, DIST, AG	N
Cactaceae - Cactus family			
<i>Opuntia littoralis</i> (Engelm.) Cockerell.	Shore cactus	RSUC	N
Caprifoliaceae - Honeysuckle Family			
<i>Sambucus mexicana</i> C. Presl	Mexican elderberry	SWS, SD, MFS, OW, SOW, RSS, RS/CS, NNG/RSS, DIST, AG, NNW	N
Chenopodiaceae - Goosefoot family			
<i>Atriplex canescens</i> (Parsh) Nutt.	Four-wing saltbush	RSS, RSUC, NNG/RSS	N
<i>Salsola tragus</i> L.	Russian thistle, tumbleweed	NNG, DIST, AG	I
Cucurbitaceae - Gourd Family			
<i>Marah macrocarpus</i> (E. Greene) E. Greene	Wild cucumber	RSS, RS/CS, NNG/RSS	N

Euphorbiaceae - Spurge Family

<i>Eremocarpus setigerus</i> (Hook.) Benth.	Dove weed	OW, SOW, NNG/RSS, NNG, DIST, AG	N
<i>Ricinus communis</i> L.	Castor bean	SWS, SD	I

Fabaceae - Pea Family

<i>Astragalus trichopodus</i> var. <i>lonchus</i> (M.E. Jones) Barneby	Coast locoweed	RSS, RSUC, NNG/RSS, NNG, DIST, AG	N
<i>Lotus scoparius</i> (Nutt. in Torrey & A. Gray) Ottley	Deerweed	RSS, RSUC, NNG/RSS, NNG	N
<i>Melilotus indica</i> (L.) All.	Sourclover	NNG/RSS, NNG, DIST, AG	I
<i>Parkinsonia aculeata</i>	Mexican palo verde	NNG, DIST, DEV, NNW	I
<i>Thermopsis macrophylla</i> Hook. & Arn. var. <i>semota</i> Jepson	Velvety false-lupine	RSS, NNG/RSS, NNG	N

Fagaceae - Oak Family

<i>Quercus agrifolia</i> Nee	Coast live oak	OW, SOW, RS/CS, NNG	N
<i>Quercus berberidifolia</i> Liebm.	Scrub oak	OW, SOW, RS/CS, NNG	N
<i>Quercus dumosa</i> Nutt.	Nuttall's scrub oak	OW, SOW, RS/CS, NNG	N

Geraniaceae - Geranium Family

<i>Erodium</i> sp.	Filaree, storksbill	NNG/RSS, NNG, DIST, AG	I
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Lamiaceae - Mint Family

<i>Marrubium vulgare</i> L.	Horehound	RSS, RSUC, NNG/RSS, NNG, DIST, AG	I
<i>Salvia apiana</i> Jepson	White sage	RSS, RS/CS, RSUC, NNG/RSS	N
<i>Salvia mellifera</i> E. Greene	Black sage	RSS, RS/CS, RSUC, NNG/RSS	N

Malvaceae - Mallow Family

<i>Malacothamnus fasciculatus</i> (Torrey & A. Gray) E. Greene	Chaparral mallow	RSS, NNG/RSS, NNG, AG	N
<i>Malva parviflora</i> L.	Cheeseweed	RSS, NNG/RSS, NNG, DIST, AG	I

Myrtaceae - Myrtle Family

<i>Eucalyptus</i> spp.	Eucalyptus	DIST, DEV, NNW	I
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Paeoniaceae - Paeony Family

<i>Paeonia californica</i> Torrey & A. Gray	Peony	RS/CS	N
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Papaveraceae - Poppy Family			
<i>Eschscholzia californica</i> Cham.	California poppy	RSS, NNG/RSS, NNG	N
Plantaginaceae - Plantain Family			
<i>Plantago erecta</i> Morris	Dot-seed plantain	NNG, AG	N
Polygonaceae - Buckwheat Family			
<i>Eriogonum fasciculatum</i> Benth. var. <i>fasciculatum</i>	California buckwheat	RSS, RS/CS, RSUC, NNG/RSS	N
<i>Rumex crispus</i> L.	Curly dock	SWS, SD, MFS, NNG, AG, NNW	I
Portulacaceae - Purslane Family			
<i>Calandrinia ciliata</i>	Red maids	NNG/RSS, NNG, AG	N
Primulaceae - Primrose Family			
<i>Anagallis arvensis</i>	Scarlet pimpernel	RSS, RSUC, NNG/RSS, NNG, DIST, AG	I
Rhamnaceae - Buckthorn Family			
<i>Ceanothus foliosus</i> Parry	Southern mountain lilac	RS/CS, NNG/RSS	N
<i>Rhamnus crocea</i> Nutt.	Spiny redberry	RS/CS	N
Rosaceae - Rose Family			
<i>Adenostoma fasciculatum</i> Hook. & Arn.	Chamise	RS/CS, NNG/RSS	N
<i>Heteromeles arbutifolia</i> (Lindley) Roemer	Toyon, Christmas berry	RS/CS	N
Salicaceae - Willow Family			
<i>Salix</i> spp.	Willow	SWS,SD	N
Scrophulariaceae - Figwort Family			
<i>Keckiella antirrhinoides</i>	Yellow bush- penstemon	RS/CS	N
Solanaceae - Nightshade Family			
<i>Datura wrightii</i>	Jimsonweed	NNG/RSS, NNG, DIST, AG	N
<i>Nicotiana glauca</i> Grah.	Tree tobacco	SWS, SD, NNG, DIST, AG, NNW	I
Tamaricaceae - Tamarisk Family			
<i>Tamarix</i> sp.	Tamarisk	SWS, SD, NNG, DIST, AG, NNW	I
Violaceae - Violet Family			

<i>Viola pedunculata</i> Torrey & A. Gray	Johnny-jump-up	NNG/RSS, NNG, DIST, AG	N
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Monocots

Arecaceae - Palm Family

<i>Washingtonia</i> sp.	Fan palm	NNG, DEV, NNW	I
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Liliaceae - Lily Family

<i>Dichelostemma capitatum</i> Alph. Wood	Blue dicks	RSS, NNG/RSS, NNG	N
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<i>Yucca whipplei</i> Torrey	Our Lord's candle	RSS, RS/CS, RSUC, NNG/RSS	N
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Poaceae - Grass Family

<i>Bromus diandrus</i> Roth.	Ripgut grass	OW, SOW, RSS, RS/CS, RSUC, NNG/RSS, NNG, DIST, AG	I
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<i>Avena fatua</i> L.	Wild oat	OW, SOW, RSS, RS/CS, RSUC, NNG/RSS, NNG, DIST, AG	I
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<i>Bromus hordeaceus</i> L.	Smooth brome	OW, SOW, RSS, RS/CS, RSUC, NNG/RSS, NNG, DIST, AG	I
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<i>Bromus madritensis</i> L. ssp. <i>rubens</i> (L.) Husnot	Foxtail chess	OW, SOW, RSS, RS/CS, RSUC, NNG/RSS, NNG, DIST, AG	I
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<i>Hordeum murinum</i> L. ssp. <i>leporinum</i> (Link) Arcang	Wild barley	OW, SOW, NNG/RSS, NNG, DIST, AG	I
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<i>Leymus condensatus</i> (C. Presl) A. Love	Giant ryegrass	SWS, SD, RSS, NNG/RSS, NNG, DIST, AG	N
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<i>Lolium multiflorum</i> Lam.	Italian ryegrass	OW, SOW, NNG/RSS, NNG, AG	I
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Habitats

AG = Agriculture

BS = Baccharis scrub

RS/CS = Riversidean sage/chaparral scrub

DEV = Developed Land

DIST = Disturbed land

MFS = Mulefat scrub

NNG = Non-native grassland

NNG/RSS = Non-native grassland/Riversidean sage scrub

NNW = Non-native woodland

OW = Oak woodlland

Origin

N = Native to locality

I = Introduced species from
outside locality

RSS = Riversidean sage scrub

RSUC= Riversidean succulent scrub

SD = Scoured Drainage

SOW = Savannah oak woodland

SWS = Southern willow scrub

APPENDIX C
WILDLIFE SPECIES OBSERVED/DETECTED WITHIN THE
YUCAIPA FREEWAY CORRIDOR SPECIFIC PLAN PROJECT SITE

Common Name	Scientific Name	Occupied Habitat	Status	Evidence of Occurrence
Birds (Nomenclature from American Ornithologists' Union 1998)				
Cooper's hawk	<i>Accipiter cooperii</i>	F, OW	CSC	O
Red-tailed hawk	<i>Buteo jamaicensis</i>	F		O
American kestrel	<i>Falco sparverius</i>	F		O
Killdeer	<i>Charadrius vociferus vociferus</i>	NNG		O
Mourning dove	<i>Zenaida macroura marginella</i>	BS, NNG, NNG/RSS, RS/CS, SWS		O
Rooster	<i>Gallus domesticus</i>	NNG		V
Anna's hummingbird	<i>Calypte anna</i>	F, BS, RS/CS, SWS		O
Woodpecker	<i>Melanerpes sp.</i>	F, OW		O
Black phoebe	<i>Sayornis nigricans semiatra</i>	BS, RS/CS, SWS		O
Western kingbird	<i>Tyrannus verticalis</i>	RS/CS, SOW		O
Northern rough-winged swallow	<i>Stelgidopteryx serripennis</i>	F		V
American crow	<i>Corvus brachyrhynchos hesperis</i>	F, NNG, NNG/RSS		O
Common raven	<i>Corvus corax clarionensis</i>	F		O
Wrentit	<i>Chamaea fasciata henshawi</i>	RS/CS, RSS		V
European starling	<i>Sturnus vulgaris</i>	NNG, NNG/RSS, RS/CS, SWS		O
Lesser goldfinch	<i>Carduelis psaltria hesperophilus</i>	RS/CS, SWS		O
Spotted towhee	<i>Pipilo maculatus</i>	RS/CS, SWS		V
California towhee	<i>Pipilo crissalis</i>	NNG, NNG/RSS, RS/CS, RSS		O
Lark sparrow	<i>Chondestes grammacus strigatus</i>	NNG, NNG/RSS		O
Song sparrow	<i>Melospiza melodia</i>	BS, NNG/RSS, RS/CS, RSS, SWS		O
House sparrow	<i>Passer domesticus</i>	BS, NNG, NNG/RSS, RSS		O
Western meadowlark	<i>Sturnella neglecta</i>	NNG, NNG/RSS, RS/CS, SOW		O
Brewer's blackbird	<i>Euphagus cyanocephalus</i>	NNG, NNG/RSS		O
Mammals (Nomenclature from Jones et al. 1982)				
California ground squirrel	<i>Spermophilus beecheyi</i>	NNG, NNG/RSS, SOW		O
Domestic dog	<i>Canis familiaris</i>	NNG		O
Domestic horse	<i>Equus caballus</i>	NNG		O
Mule	<i>Equus asinus</i>	NNG		O
Texas longhorn cattle	<i>Bos taurus</i>	NNG		O

<u>Habitats</u>		<u>Evidence of Occurrence</u>		<u>Status</u>	
AG	Agriculture	V	Vocalization	CSC	California Department of Fish and Game species of special concern
BS	Baccharis Scrub	O	Observed		
RS/CS	Riversidean Sage/Chaparral Scrub				
DEV	Developed Land				
DIST	Disturbed Land				
F	Flying Overhead				
MFS	Mulefat Scrub				
NNG	Non-Native Grassland				
NNG/RSS	Non-Native Grassland/Riversidean Sage Scrub				
NNW	Non-Native Woodland				
OW	Oak Woodland				
RSS	Riversidean Sage Scrub				
RSUC	Riversidean Succulent Scrub				
SD	Scoured Drainage				
SOW	Savannah Oak Woodland				
SWS	Southern Willow Scrub				