

5.3 BIOLOGICAL RESOURCES

The analysis in this section is based in part on the following technical reports listed below:

- *Arborist Report, Martin Ranch, San Bernardino County, Integrated Urban Forestry, 1998.*
- *General Biological Resources Report, Martin Ranch Project Site, Unincorporated San Bernardino County, California, Michael Brandman Associates, 2007.*
- *Least Bell's Vireo and Southwestern Willow Flycatcher Focused Survey Report, Martin Ranch, Michael Brandman Associates, 2007.*
- *Post-Disturbance Arborist Report Update, Martin Ranch Project Site, Unincorporated San Bernardino County, California, Michael Brandman Associates, 2007.*
- *General Biological Resources Assessment Update, Martin Ranch Property, San Bernardino County, California, Natural Resources Assessment, Inc., 2004.*
- *Delineation of Jurisdictional Waters and Wetlands, Spring Trails Specific Plan (Access Roads), San Bernardino County, California, PBS&J, 2009.*
- *Delineation of Jurisdictional Waters and Wetlands, Spring Trails Specific Plan, San Bernardino County, California, PBS&J, 2009.*
- *San Bernardino Kangaroo Rat Presence/Absence Trapping Surveys, Spring Trails Project Site, PBS&J, 2009.*
- *Rare Plant Survey Letter Report, Spring Trails Specific Plan, PBS&J, 2009.*
- *Review and Update of the Biological Resources Associated with the Spring Trails Development and Associated Access Roads, PBS&J, 2009.*
- *Spring Trails Specific Plan, Biological Resources Assessment: Compiled from Assessments and Surveys Conducted from 1998 to 2009, PBS&J, 2009 and 2011.*
- *Biological Resources Assessment and Report for the Martin Ranch Property, San Bernardino County, California, PCR Services Corporation, 1999 (surveys conducted 1998).*
- *Results of a Live Trapping Survey for the Federally Endangered San Bernardino Kangaroo Rat on the Secondary Access Route for the Proposed Martin Ranch Project, S.C. Dodd Biological Consulting, 2002.*
- *Biological Technical Report Update: Proposed Martin Ranch Project, San Bernardino, California, White and Leatherman Bioservices, 2002.*
- *Results of Focused Presence/Absence Surveys for the Coastal California Gnatcatcher on the Martin Ranch Access Road Project, White and Leatherman Bioservices, 2002.*
- *Biological Technical Report: Proposed Secondary Access Road, Martin Ranch Project, San Bernardino, California, White and Leatherman Bioservices, 2002.*



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Complete copies of these studies are included in the Technical Appendices to this Draft EIR (Volume II, Appendices D1–D17).

5.3.1 Environmental Setting

The Spring Trails project site has been the subject of ongoing surveys and assessments since 1998. A comparison of current conditions with those reported in earlier assessments demonstrates that vegetation and wildlife on the project site have remained relatively stable over the last 13 years, despite one major wildfire event and several minor fire events. Vegetative composition has remained essentially unchanged, though some of the species and communities are less fully developed than was reported prior to the 2003 and 2007 fires. Wildlife species either confirmed to be on the site or with a high probability of occurrence on the site have also been stable. So far as is known, no sensitive species confirmed to be present on the site during earlier survey work has been extirpated. Conversely, no species confirmed to be absent from the site or with a low probability of occurrence on the site has been found to be present. This level of stability is not particularly surprising due to the vigorous reestablishment of vegetation on the site and the subsequent reestablishment of suitable habitats following the 2003 and 2007 fires.

The existing conditions described in this section are from a compilation of surveys and observations conducted on the site since 1998. This information was verified and updated in 2009 and 2011. This compiled information is presented in more detail in the report prepared by PBS&J (now known as Atkins North America): *Spring Trails Specific Plan, Biological Resources Assessment: Compiled from Assessments and Surveys Conducted from 1998 to 2009* (PBS&J 2011). Readers desiring more detailed explanations of the information presented in this section are directed to that report, included within this EIR as Appendix D12.

Plant Communities

The project site comprises a variety of plant communities and vegetation types. Seventeen different plant communities have been identified on the site, and a brief description of each community, the plant species common to it, and the current condition of the habitat is provided below. Figure 5.3-1 shows the distribution of the communities on the site. Table 5.3-1 summarizes each community and its area of coverage.

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**Table 5.3-1
Plant Communities on the Spring Trails Project Site**

<i>Plant Community</i>	<i>Acreage</i>
California Walnut Woodland (CWW)	2.1
Canyon Live Oak Woodland (CLOW)	0.4
Ceanothus Crassifolius Chaparral (CCC)	10.1
Chamise Chaparral (CC)	9.1
Disturbed (D)	3.7
Eucalyptus (EUC)	5.5
Eucalyptus/Riversidean Sage Scrub (EUC/RSS)	12.1
Nonnative Grassland (NNG)	11.4
Northern Mixed Chaparral (NMC)	86.9
Ornamental (O)	0.7
Riversidean Alluvial Fan Sage Scrub (RAFSS)	4.4
Riversidean Sage Scrub (RSS)	168.4
Riversidean Sage Scrub/California Walnut Woodland (RSS/CWW)	19.8
Southern Sycamore-Alder Riparian Woodland (SSARW)	25.4
Southern Willow Scrub (SWS)	1.6
Southern Willow Scrub/California Walnut Woodland (SWS/CWW)	7.4
Sycamore Alluvial Woodland (SAW)	7.5

Sources: 1998: Integrated Urban Forestry. Arborist Report, Martin Ranch, San Bernardino County, California.
 1999: PCR Services Corporation. Biological Resources Assessment and Report for the Martin Ranch Property, San Bernardino County, California.
 (Note: surveys conducted in 1998).
 2002: White and Leatherman Bioservices. Biological Technical Report Update: Proposed Martin Ranch Project, San Bernardino, California.
 2002: White and Leatherman Bioservices. Biological Technical Report: Proposed Secondary Access Road, Martin Ranch Project, San Bernardino, California.
 2004: Natural Resources Assessment. General Biological Resources Assessment Update, Martin Ranch Property, San Bernardino County, California.
 2007: Michael Brandman Associates. General Biological Resources Report, Martin Ranch Project Site, Unincorporated San Bernardino County, California.
 2007: Michael Brandman Associates. Post-Disturbance Arborist Report Update, Martin Ranch Project Site, Unincorporated San Bernardino County, California.
 2008: Michael Brandman Associates. Habitat Assessment Report, Spring Trails Project Site (Access Roads), Unincorporated San Bernardino County, California.
 2009: PBS&J. Review and Update of the Biological Resources Associated with the Spring Trails Development and Associated Access Roads.
 2009: PBS&J. Rare Plant Survey Letter Report, Spring Trails Specific Plan.

Note: Acreages are rounded to the nearest tenth of an acre



California Walnut Woodland (CWW). The California Department of Fish and Game (CDFG) lists CWW as rare, and it is considered a sensitive plant community. CWW was found in the northeastern portion of the property in a dense patch at the base of the hillsides. The woodland is healthy and has substantially recovered from the Old Fire. This community occupies 2.1 acres of the project site and integrates with the surrounding chaparral and Riversidean sage scrub (RSS) plant communities. Characteristic species found

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onsite included California walnut (*Juglans californica* var. *californica*), coast live oak (*Quercus agrifolia*), sugar bush (*Rhus ovata*), and skunkbrush (*Rhus trilobata*). Understories consist of rushes (*Juncus* sp.), western ragweed (*Ambrosia psilostachya*), and tarragon (*Artemisia dracuncululus*).

Canyon Live Oak Woodland (CLOW). CLOW is dominated by canyon live oak (*Quercus chrysolepis*), holly-leaved cherry (*Prunus ilicifolia*), and skunkbrush and is found on gentle to steep north-facing hillsides in the northwestern portion of the site in a small 0.4-acre patch. This woodland has recovered from the 2003 Old Fire and younger trees have reestablished within this community.

Ceanothus Crassifolius Chaparral (CCC). Hoary leaf ceanothus (*Ceanothus crassifolius*) chaparral occupies 10.1 acres and occurs in a large patch in the southern portion of the project site, with a much smaller patch in the north. CCC is a fire-adapted plant community. The community has substantially recovered from the 2003 Old Fire and is in an intermediate successional stage. Dominant plant species occurring onsite included hoary leaf ceanothus, chamise (*Adenostama fasciculatum*), toyon (*Heteromeles arbutifolia*), scrub oak (*Quercus berberidifolia*), and sugar bush occurring as subdominants.

Chamise Chaparral (CC). Chamise chaparral comprises approximately 9.1 acres in the southern portion of the project site. Chamise chaparral is a fire-adapted plant community. The chamise chaparral community has substantially recovered from the 2003 Old Fire and is in an intermediate successional stage. Although chamise is the dominant shrub, other shrubs are present, including California buckwheat (*Eriogonum fasciculatum*), white sage (*Salvia apiana*), golden yarrow (*Eriophyllum confertifolium*), deerweed (*Lotus scoparius*), and California sagebrush (*Artemisia californica*).

Disturbed (D). Scattered areas of disturbed habitat occur throughout the project site. Types of disturbed areas found on the property include cleared land, an existing residential area, and unpaved roads. In total, there are 3.7 acres of disturbed habitat.

Eucalyptus (EUC) and Eucalyptus/Riversidean Sage Scrub (EUC/RSS). Eucalyptus species occurring onsite include red gum (*Eucalyptus camaldulensis*), blue gum (*Eucalyptus globulus*), silver-dollar gum (*Eucalyptus polyanthemos*), and flooded gum (*Eucalyptus rudis*). These trees are scattered throughout the project site and intermix with RSS. The eucalyptus trees on the site are remnants of a commercial fuel wood plantation and are not native to the area. In total, there are 17.6 acres of eucalyptus trees at various levels of intermixing with surrounding plant communities: pure eucalyptus stands (5.5 acres) and EUC/RSS (12.1 acres).

Nonnative Grassland (NNG). This community is largely restricted to the upper portion of the proposed secondary access road alignment. All together, approximately 11.4 acres of the project site are vegetated by this community, and it is mostly restricted to the flatter areas of the site. Dominant species include wild oat (*Avena fatua*), slender wild oat (*Avena barbata*), ripgut grass (*Bromus diandrus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), barley (*Hordeum vulgare*), fescue (*Vulpia myuros*), black mustard (*Brassica nigra*), red-stemmed filaree (*Erodium cicutarium*), and cheeseweed (*Malva parviflora*). NNG is often one of the first plant communities to reestablish following a disturbance such as a fire, and large areas can be permanently converted to this vegetation type if fires become too frequent or if a high-intensity fire event is followed by a prolonged period of drought. The relatively small size of this plant community attests to the overall recovery of the native plant communities on the project site.

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Northern Mixed Chaparral (NMC). This is the largest occurring chaparral community found on the site. It contains a diversity of broadleaved, drought-adapted shrubs, including chamise chaparral, whitethorn (*Ceanothus leucodermis*), scrub oak, birch-leaf mountain-mahogany (*Cercocarpus betuloides*), hoary leaf ceonothus, Mexican elderberry (*Sambucus mexicana*), holly-leaf cherry, toyon, and skunkbrush. NMC comprises 86.9 acres of the project site and occurs on the steeper, rocky slopes predominantly in the northern and eastern portions of the project site. Chaparral is a fire-adapted plant community. The chaparral community has substantially recovered from the 2003 Old Fire and is in an intermediate successional stage.

Ornamental (O). Less than an acre (approximately 0.7 acre) of ornamental vegetation occurs in the northern portion of the property around an old house foundation. The area includes tree of heaven (*Ailanthus altissima*), olive (*Olea europaea*), eucalyptus, California black walnut, and incense cedar (*Calocedrus decurrens*).

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

Scalebroom (*Lepidospartum squamatum*) has a high fidelity to alluvial substrates and is located throughout this plant community. Additional species common to RAFSS and located onsite include: spiny redberry (*Rhamnus crocea*), chaparral yucca (*Yucca whipplei*), California croton (*Croton californicus*), birch-leaf mountain mahogany, yerba santa (*Eriodictyon trichocalyx*), and deerweed. The RAFSS onsite also contains buckwheat (*Eriogonum fasciculatum*) and annuals, including sun cup (*Camissonia* sp.), popcorn flower (*Cryptantha* sp.), and phacelia (*Phacelia distans*). There are approximately 4.4 acres of this plant community on the project site, all of which is located along the southern portion of the proposed secondary access road alignment within the alluvial channel of Cable Creek.



Riversidean Sage Scrub (RSS). CDFG lists RSS as a sensitive plant community. RSS is the most xeric (dry, desert-like) expression of coastal sage scrub in southern California and has adapted to periodic occurrence of fire and other forms of disturbance. The majority of RSS onsite has a history of disturbance. Much of the area currently supporting RSS was dryland farmed or grazed until 1989. Major fires can temporarily reduce or destroy this plant community. Today the RSS onsite has substantially recovered from the 2003 and 2007 fires and is currently in an intermediate phase of succession. This community is dominated by California buckwheat, deerweed, white sage, yerba santa, and black sage (*Salvia mellifera*). There are currently 168.4 acres of RSS within the project site. The largest block of RSS occurs within the central portion of the site, but several smaller patches are located in the northern and southern portions of the site, as well as along the primary access road alignment.

Riversidean Sage Scrub/California Walnut Woodland (RSS/CWW). There are approximately 19.8 acres of this mixed plant community located primarily within the unnamed tributary of Cable Creek that traverses the northern third of the site. CDFG lists both RSS and CWW as sensitive plant communities.

Southern Sycamore-Alder Riparian Woodland (SSARW). CDFG lists SSARW as rare and it is considered a sensitive plant community. There are 25.4 acres of SSARW onsite, primarily found in association with Cable Creek in the northwest corner of the site. A small patch of this woodland also occurs near the extreme southeastern corner of the site. Plants found within this community consisted primarily of big leaf maple (*Acer macrophyllum*), coast live oak, white alder (*Alnus rhombifolia*), western sycamore (*Platanus racemosa*),

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California bay (*Umbellularia californica*), California black walnut, scrub oak, and Mexican elderberry. Understory species included California blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*), wild grape (*Vitis californica*), and mugwort (*Artemisia douglasiana*). This riparian woodland occurs within the canyon bottoms and was not as adversely affected by the wildfires as plant communities on the alluvial fans and hilltops. Vegetation within this woodland is diverse and healthy and shows no remaining adverse impacts from the 2003 Old Fire.

Southern Willow Scrub (SWS). CDFG lists SWS as a sensitive plant community. Two small areas, comprising 1.6 acres, of SWS occur on the project site. One large patch is located in the northern portion of the site and a smaller patch is located along the western boundary. The community is found primarily in association with Meyer Canyon and supports arroyo willow (*Salix lasiolepis*) and red willow (*Salix laevigata*), with lesser amounts of mule fat (*Baccharis salicifolia*), Fremont's cottonwood (*Populus fremontii* ssp. *fremontii*), and Mexican elderberry. The understory consists of wild grape, poison oak, mugwort, California blackberry, and numerous ferns. This riparian woodland occurs within the canyon bottoms and was not as adversely affected as plant communities on the alluvial fans and hilltops. Vegetation within this woodland is diverse and healthy and shows no remaining adverse impacts from the 2003 Old Fire.

Southern Willow Scrub/California Walnut Woodland (SWS/CWW). The SWS found onsite is mixed with CWW in one large patch totaling 7.4 acres in the southern portion of the project site in the vicinity of the San Andreas Fault Zone. This community requires more moist conditions than what is present on the surrounding RSS areas. The community is probably present at this location because of upswellings of groundwater along the fault. The jurisdictional delineation conducted for the site (PBS&J 2009b) classified this area as a seasonal wetland. Vegetation within this woodland is diverse and healthy and shows no remaining adverse impacts from the 2003 Old Fire. CDFG lists both SWS and CWW as sensitive plant communities.

Sycamore Alluvial Woodland (SAW). CDFG lists SAW as a sensitive plant community. Sycamore alluvial woodland is located on the site, and is dominated by western sycamore, scrub oak, and Mexican elderberry. The 7.5 acres of woodland are associated with the braided, depositional channels of Meyers Canyon in the southern portion of the site. Vegetation within this woodland is diverse and healthy and shows no remaining adverse impacts from the 2003 Old Fire.

Special Status Plant Communities

Of the 17 plant communities described above, 8 are considered sensitive by either the US Fish and Wildlife Service (USFWS), the California Native Plant Society (CNPS), or CDFG. These communities are listed below. See Figure 5.3-1 for the location of these communities within the project site.

- California Walnut Woodland (CWW)
- Riversidean Alluvial Fan Sage Scrub (RAFSS)
- Riversidean Sage Scrub (RSS)
- Riversidean Sage Scrub/California Walnut Woodland (RSS/CWW)
- Southern Sycamore-Alder Riparian Woodland (SSARW)
- Southern Willow Scrub (SWS)
- Southern Willow Scrub/California Walnut Woodland (SWS/CWW)
- Sycamore Alluvial Woodland (SAW)

A small portion of the site (12.1 acres) is occupied by an intermixed community of eucalyptus and Riversidean sage scrub. Even though this intermixed community contains elements of RSS, which would normally qualify for sensitive community status, it is sufficiently dominated by eucalyptus that the native RSS habitat has been substantially degraded. For this reason, the combined 12.1 acres of EUC/RSS on the site are not considered a sensitive plant community.

Special Status Plant Species

A number of special status plant species appear on California Natural Diversity Database (CNDDDB) searches for the project area or are otherwise considered as having a potential to occur on the project site. Numerous focused plant surveys and other assessments have been conducted on the site since 1998. Table 5.3-2 provides a summary of the results of these surveys, together with a listing of the specific reports and surveys from which the information was derived.

No plant species listed as either endangered or threatened under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA) have been observed on the project site. These negative findings have been consistent for all surveys performed on the site since 1998.

Plummer's mariposa lily (*Calochortus plummerae*) has been observed on the site and is expected to occur in other areas where it has not been directly observed based on the presence of suitable habitat and known occurrences in the area. Plummer's mariposa lily is classified as a CNPS List 1B species, which means that the plant is considered to be rare in California and elsewhere.

California black walnut is present on the project site. California black walnut is only listed as a CNPS List 4 species, but since it is the primary constituent of the California walnut woodland community, which is considered a special status plant community, it is included here as a special status plant species.

A number of CNPS List 3 and 4 plant species have been recorded on the site, and information regarding those species is presented in Table 5.3-2. List 3 and 4 species are species for which more information is needed or with limited distribution. These lists are maintained as review and watch lists and the species listed are not necessarily considered rare or endangered.



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Table 5.3-2
Potential Sensitive Plant Species on the Spring Trails Project Site

Species	Status Fed/State/CNPS	Observed Onsite?					Likelihood of Occurrence
		1998	2002	2007	2008	2009	
Nevin's barberry (<i>Berberis nevinii</i>)	FE/SE/1B	No	No	No	No	No	Very low likelihood of occurrence as species is easily observed and recognizable and repeat surveys have been consistently negative
Slender-horned spineflower (<i>Dodecahema leptoceras</i>)	FE/SE/1B	No	No	No	No	No	Low to moderately suitable habitat is present in Cable Creek, but repeat negative surveys would strongly suggest that the species is not present
Santa Ana River woollystar (<i>Eriastrum densifolium</i> ssp. <i>Sanctorum</i>)	FE/SE/1B	No	No	No	No	No	Low to moderately suitable habitat is present in Cable Creek, but repeat negative surveys would strongly suggest that the species is not present
Marsh sandwort (<i>Arenaria paludicola</i>)	FE/SE/1B	No	No	No	No	No	None, no suitable habitat present on the site
Thread-leaved brodiaea (<i>Brodiaea filifolia</i>)	FT/SE/1B	No	No	No	No	N/D	None, no suitable habitat present on the site
Parish's bush mallow (<i>Malacothamnus parishii</i>)	None/None/1A	N/D	No	N/D	N/D	N/D	Absent, presumed extinct in region
Orcutt's brodiaea (<i>Brodiaea orcuttii</i>)	None/None/1B	No	No	No	No	N/D	None, well outside of species geographic range and no suitable habitat present on the site
Plummer's mariposa lily (<i>Calochortus plummerae</i>)	None/None/1B	Yes	No	Yes	No	No	Present on site
Many-stemmed dudleya (<i>Dudleya multicaulis</i>)	None/None/1B	No	No	No	No	No	None, well outside of species geographic range and no suitable habitat present on the site
San Bernardino Mountain owl's clover (<i>Castilleja lasiorhyncha</i>)	None/None/1B	No	No	No	No	No	None, well below the species elevation range
Smooth tarplant (<i>Centrodadia pungens</i> ssp. <i>Laevis</i>)	None/None/1B	No	No	No	No	No	Unlikely to occur, only marginal habitat and at the margin of its geographic range
Parish's gooseberry (<i>Ribes divaricatum</i> var. <i>parishii</i>)	None/None/1B	No	No	No	No	No	Very low likelihood of occurrence, plant is probably extinct
Lemon lily (<i>Lilium parryi</i>)	None/None/1B	N/D	No	N/D	N/D	N/D	Absent, below elevation range

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**Table 5.3-2
Potential Sensitive Plant Species on the Spring Trails Project Site**

Species	Status Fed/State/CNPS	Observed Onsite?					Likelihood of Occurrence
		1998	2002	2007	2008	2009	
Mesa horkelia (<i>Horkelia cuneata</i> ssp. <i>puberula</i>)	None/None/1B	N/D	No	No	N/D	No	Not observed, low probability of occurrence as outside of species range and no suitable habitat is present on the site
Palmer's mariposa lily (<i>Calochortus plummerae</i>)	None/None/1B	N/D	No	N/D	N/D	N/D	Absent, no suitable habitat present on the site
Robinson's pepper grass (<i>Lepidum virginicum</i> var. <i>robinsonii</i>)	None/None/1B	N/D	No	N/D	N/D	N/D	Absent, above elevation range
Short-joint beavertail (<i>Optunia basilaris</i> var. <i>brachyclada</i>)	None/None/1B	N/D	No	N/D	N/D	N/D	Not observed, low probability of occurrence, below elevation range
White-bracted spineflower (<i>Chorizanthe xanti</i> var. <i>leucotheca</i>)	None/None/1B	N/D	No	N/D	N/D	N/D	Not observed, low probability of occurrence as site is outside of species range
Black sedge (<i>Schoenus nigricans</i>)	None/None/2	N/D	No	N/D	N/D	N/D	Absent, no suitable habitat present on the site
Hot springs fimbristylis (<i>Fimbristylis thermalis</i>)	None/None/2	No	No	No	No	No	Absent, no suitable habitat present on the site
Parish's desert thorn (<i>Lycium parishii</i>)	None/None/2	N/D	No	N/D	N/D	N/D	Absent, no suitable habitat present on the site
Parry's spineflower (<i>Chorizanthe parryi</i> var. <i>parryi</i>)	None/None/3	No	No	No	No	No	Not observed, but could occur on the site as suitable habitat for the species is present
California black walnut (<i>Juglans californica</i> var. <i>californica</i>)	None/None/4	N/D	Yes	N/D	N/D	Yes	Present on site
California muhly grass (<i>Muhlenbergia californica</i>)	None/None/4	N/D	No	N/D	N/D	No	Not observed, suitable habitat is present within the riparian habitat of Cable Creek, but repeat negative surveys would strongly indicate that species is absent from the site
California spineflower (<i>Mucronea californica</i> var. <i>Chorizanthe californica</i>)	None/None/4	N/D	No	N/D	N/D	No	Not observed, low probability of occurrence in open sites in shrublands

**Table 5.3-2
Potential Sensitive Plant Species on the Spring Trails Project Site**

Species	Status Fed/State/CNPS	Observed Onsite?					Likelihood of Occurrence
		1998	2002	2007	2008	2009	
Ocellated Humboldt lily (<i>Lilium humboldtii</i> var. <i>ocellatum</i>)	None/None/4	N/D	No	N/D	N/D	No	Not observed, high probability of occurrence in riparian habitat of Cable Creek
Golden violet (<i>Viola aurea</i>)	N/D	N/D	No	N/D	N/D	N/D	Absent, below elevation range and outside of geographical range

Sources: 1998: Integrated Urban Forestry. Arborist Report, Martin Ranch, San Bernardino County, California.

1999: PCR Services Corporation. Biological Resources Assessment and Report for the Martin Ranch Property, San Bernardino County, California. (Note: surveys conducted in 1998).

2002: White and Leatherman Bioservices. Biological Technical Report Update: Proposed Martin Ranch Project, San Bernardino, California.

2002: White and Leatherman Bioservices. Biological Technical Report: Proposed Secondary Access Road, Martin Ranch Project, San Bernardino, California.

2007: Michael Brandman Associates. General Biological Resources Report, Martin Ranch Project Site, Unincorporated San Bernardino County, California.

2007: Michael Brandman Associates. Post-Disturbance Arborist Report Update, Martin Ranch Project Site, Unincorporated San Bernardino County, California.

2008: Michael Brandman Associates. Habitat Assessment Report, Spring Trails Project Site (Access Roads), Unincorporated San Bernardino County, California.

2009: PBS&J. Review and Update of the Biological Resources Associated with the Spring Trails Development and Associated Access Roads.

2009: PBS&J. Rare Plant Survey Letter Report, Spring Trails Specific Plan.

Notes: N/D = No data

Federal (USFWS):

FE: Federally listed, endangered

FT: Federally listed, threatened

State (CDFG):

SE: State listed, endangered

ST: State listed, threatened

California Native Plant Society (CNPS) List:

List 1A: Plants presumed extinct in California

List 1B: Plants rare, threatened or endangered in California and elsewhere

List 2: Plants rare, threatened or endangered in California but more common elsewhere

List 3: Plants for which more information is needed; a review list

List 4: Plants of limited distribution; a watch list

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Tree Resources on the Project Site

Arborist reports were prepared for the site in 1998 and 2007 (Integrated Urban Forestry 1998; MBA 2007c). The 2007 report was prepared as an update of conditions on the site following the October 2003 Old Fire. A general inventory and assessment of the condition of the trees on the site were undertaken during both the 1998 and 2007 surveys. The 2007 report found that the native tree species on the site had vigorously recovered from the effects of the 2003 fire.

The 1998 survey found approximately 4,000 trees on the project site. Approximately 34 percent of those were native tree species, while the remaining 66 percent were eucalyptus and nonnative ornamental species. Eucalyptus trees constituted the majority of the nonnative species, with approximately 2,560 trees. These trees were originally planted for lumber and fuel wood. Evidence was present to suggest that the eucalyptus on the site had been harvested numerous times. Evidence was also present to suggest that the trees had been damaged during previous fire events, most likely the 1980 Panorama Fire. Both of these determinations were made based on the presence of stump sprouts that likely became established following fire damage or coppicing, which is a traditional method of timber management that takes advantage of the fact that many trees reshoot from the stump or roots if cut down or damaged. A number of other nonnative species were also observed on the site, including tree-of-heaven, olive, and fruit-bearing orchard trees such as apricot, peach, and apple trees.

The 1998 survey found approximately 1,350 native trees on the project site, not including small trees or multi-trunked shrubs. Native trees included California bay, California black walnut, white alder, western sycamore, and canyon live oak. Table 5.3-3 provides a summary of the native tree species identified on the site during the 1998 survey.



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**Table 5.3-3
Summary of Native Trees on the Spring Trails Project Site (1998)**

Tree Species	Total Mature Trees	Small Plants not Included in Count	Location
California bay (<i>Umbellularia californica</i>)	372	Many	Mostly in Cable Canyon
California black walnut (<i>Juglans californica</i>)	310	Many	Northern portion of site and also on sides of most channels
White alder (<i>Alnus rhombifolia</i>)	218	Some	In east and west forks of Cable Creek
California sycamore (<i>Plantus racemosa</i>)	196	Many	Bottom of Myers Creek and other tributaries
Canyon live oak (<i>Quercus chrysolepis</i>)	154	Few	Largest in southeast fork of Cable Canyon
Big-leaf maple (<i>Acer macrophyllum</i>)	30	Few	In east and west forks of Cable Creek
Narrow-leaf cottonwood (<i>Populus angustifolia</i>)	17	Many	Found next to water in Cable Creek
Incense cedar (<i>Calocedrus decurrens</i>)	11	Few	Planted as an ornamental at the existing residence
Mountain mahogany (<i>Cercocarpus betuloides</i>)	8	Some	Largest occurrence in Cable Canyon
Bigcone Douglas fir (<i>Pseudotsuga macrocarpa</i>)	8	Few	On east-facing slope of Cable Canyon
Holly-leaf cherry (<i>Prunus ilicifolia</i>)	6	Some	On east side of Cable Creek, before fork
Scrub oak (<i>Quercus berberidifolia</i>)	6	Many	Some hybridization with canyon live oak
Great-berried Manzanita (<i>Arctostaphylus glauca</i>)	5	Some	Largest on steep western canyon wall of Cable Creek
Mexican elderberry (<i>Sambucus Mexicana</i>)	5	Many	Mostly shrubs throughout
Red willow (<i>Salix lasiandra</i>)	2	Some	Largest in west Meyers Canyon
Arroyo willow (<i>Salix lasiolepis</i>)	0	Many	In wet areas

Sources: 1998: Integrated Urban Forestry. Arborist Report, Martin Ranch, San Bernardino County, California.

2007: Michael Brandman Associates. Post-Disturbance Arborist Report Update, Martin Ranch Project Site, Unincorporated San Bernardino County, California.

The 2007 arborist survey gathered data on each sensitive native tree vegetation community and provided an update as to their condition and outlook following the 2003 Old Fire. Individual trees were not specifically evaluated. Rather, the focus of the evaluation was extended to the entire community. The analysis concluded that each of the communities had recovered well from the 2003 fire. All communities exhibited resprouting or other forms of reestablishment and the outlook for full recovery was considered very favorable.

Wildlife

The project site contains a variety of habitats and thus has the potential to support a wide number of wildlife species. Table 5.3-4 provides a summary of the results of the various habitat assessments and focused surveys that have been conducted on the site since 1998, together with a listing of the specific reports and surveys from which the information was derived. Narrative summary discussions of the findings for each wildlife group are provided below.

**Table 5.3-4
Potential Sensitive Wildlife Species on the Spring Trails Project Site**

Species	Status Fed/State	In Critical Habitat?	Observed Onsite?					Likelihood of Occurrence
			1998	2002	2007	2008	2009	
Mammals								
San Bernardino kangaroo rat (<i>Dipodomys merriami parvus</i>)	FE/SSC	Yes	No	No	No	N/D	No	Repeated focused surveys have been negative for this species. Nevertheless, suitable habitat is present and the area is within USFWS designated critical habitat. Therefore there remains a moderate potential for the species to occur on the site along the lower portion of the secondary access road alignment.
American badger (<i>Taxidea taxus</i>)	SSC	N/A	N/D	No	N/D	No	No	Not observed, high probability of occurrence based on presence of suitable habitat
Big free-tailed bat (<i>Nyctinomops macrotis</i>)	SSC	N/A	N/D	No	N/D	N/D	N/D	Not observed, unknown probability of occurrence
California leaf-nosed bat (<i>Macrotus californicus</i>)	SSC	N/A	N/D	No	N/D	N/D	N/D	Not observed, moderate probability of occurrence and use of area for foraging
California mastiff bat (<i>Eumops perotis californicus</i>)	SSC	N/A	N/D	No	N/D	N/D	N/D	Not observed, unknown probability of occurrence
Los Angeles pocket mouse (<i>Perognathus longimembris brevinasus</i>)	SSC	N/A	Yes	Yes	Yes	N/D	Yes	Present onsite based on capture during focused surveys for SBKR
Occult little brown bat (<i>Myotis lucifugus occultus</i>)	SSC	N/A	N/D	No	N/D	N/D	N/D	Not observed, moderate to high probability of occurrence and use of area for foraging and roosting
Pallid San Diego pocket mouse (<i>Chaetodipus fallax fallax pallidus</i>)	SSC	N/A	N/D	N/D	N/D	N/D	No	Suitable habitat onsite, nearest recorded occurrence two miles, not observed during repeat SBKR surveys, moderate potential for occurrence
Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>)	SSC	N/A	No	No	N/D	No	N/D	Outside of known range; unlikely to occur
San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>)	SSC	N/A	N/D	No	No	No	No	Not observed, high probability of occurrence
San Diego desert woodrat (<i>Neotoma lepida intermedia</i>)	SSC	N/A	Yes	Yes	Yes	Yes	No	Present onsite based on capture during previous focused surveys for SBKR

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**Table 5.3-4
Potential Sensitive Wildlife Species on the Spring Trails Project Site**

Species	Status Fed/State	In Critical Habitat?	Observed Onsite?					Likelihood of Occurrence
			1998	2002	2007	2008	2009	
Northwestern San Diego pocket mouse (<i>Chaetodipus fallax fallax</i>)	SSC	N/A	Yes	Yes	Yes	N/D	Yes	Present onsite based on capture during focused surveys for SBKR
Southern grasshopper mouse (<i>Onychomys torridus Ramona</i>)	SSC	N/A	No	No	No	No	No	Not captured during focused survey trapping effort for SBKR. Low probability of occurrence due to lack of suitable habitat
Western mastiff bat (<i>Eumops perotis</i>)	SSC	N/A	No	N/D	No	No	N/D	Marginal habitat onsite, low potential to occur
White-eared pocket mouse (<i>Perognathus alticola alticola</i>)	SSC	N/A	No	No	No	No	No	Not present, site is well below known elevation range. Not captured during previous focused survey trapping efforts for SBKR
Ring-tailed cat (<i>Bassariscus astutus</i>)	USFS "special"/SSC	N/A	No	No	No	No	No	Not observed, moderate probability of occurrence due to moderately suitable habitat in Cable Creek area
Birds								
Least Bell's vireo (<i>Vireo bellii</i> ssp. <i>pusillus</i>)	FE, SSC	No	No	No	Yes	No	No	Present onsite, observed along Cable Creek during focused survey in 2007
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	FE, SE	No	No	No	No	No	No	Moderately suitable habitat in Cable Creek, nearest recorded occurrence seven miles. Focused surveys in 2007 negative. Previous and subsequent general habitat surveys negative. Moderate potential for occurrence based on presence of quality habitat
Coastal California gnatcatcher (<i>Polioptila californica</i>)	FT, SSC	No	No	No	No	N/D	No	Absent, based on focused surveys. Nearest recorded location is five miles to the east
Bell's sage sparrow (<i>Amphispiza belli belli</i>)	SSC	N/A	Yes	Yes	Yes	No	No	Present based on previous surveys and observations
Southern California rufous-crowned sparrow (<i>Aimophila ruficeps canescens</i>)	SSC	N/A	Yes	Yes	Yes	No	No	Present based on previous surveys and observations
Tri-colored blackbird (<i>Agelaius tricolor</i>)	SSC	N/A	No	No	No	No	No	Not observed, low probability of occurrence due to lack of suitable habitat and lack of local occurrences

**Table 5.3-4
Potential Sensitive Wildlife Species on the Spring Trails Project Site**

Species	Status Fed/State	In Critical Habitat?	Observed Onsite?					Likelihood of Occurrence
			1998	2002	2007	2008	2009	
Black-chinned sparrow (<i>Spizella atrogularis</i>)	SSC	N/A	N/D	No	N/D	No	No	Not observed, but high probability of occurrence based on suitable habitat
Burrowing owl (<i>Speotyto cunicularia</i>)	SSC	N/A	No	No	No	No	No	Not observed, low probability of occurrence due to lack of suitable habitat
Cactus wren (<i>Campytorhynchus bruneicapillus couesi</i>)	SSC	N/A	N/D	No	N/D	N/D	No	Not observed, low probability of occurrence based on lack of suitable habitat
California horned lark (<i>Eremophila alpestris actia</i>)	SSC	N/A	No	No	No	No	No	Not observed, low probability of occurrence due to marginally suitable habitat
Chipping sparrow (<i>Spizella passerina</i>)	SSC	N/A	N/D	No	N/D	N/D	No	Not observed, but could use site for foraging
Cooper's hawk (<i>Accipiter cooperii</i>)	SSC	N/A	No	No	No	No	No	Not observed, but may use site for foraging
Ferruginous hawk (<i>Buteo regalis</i>)	SSC	N/A	No	No	No	No	No	Not observed, but may use site for foraging
Grasshopper sparrow (<i>Ammodramus savannarum</i>)	SSC	N/A	N/D	No	No	No	No	Not observed, low probability of occurrence based on lack of suitable habitat
Golden eagle (<i>Aquila chrysaetos</i>)	SSC	N/A	No	No	No	No	No	Not observed, but may use site for foraging
Lawrence's goldfinch (<i>Carduelis lawrencei</i>)	SSC	N/A	N/D	Yes	N/D	N/D	No	Present, based on previous observations
Loggerhead shrike (<i>Lanius ludovicianus</i>)	SSC	N/A	No	No	No	No	No	Not observed, high probability of occurrence due to suitable habitat
Long-eared owl (<i>Asio otus</i>)	SSC	N/A	N/D	No	N/D	N/D	N/D	Not observed, low probability of occurrence
Merlin (<i>Falco columbaris</i>)	SSC	N/A	No	No	No	No	No	Not observed, but may use site for foraging
Northern harrier (<i>Circus cyaneus</i>)	SSC	N/A	No	No	No	No	No	Not observed, but may use site for foraging
Olive-sided flycatcher (<i>Contopus borealis</i>)	SSC	N/A	N/D	No	N/D	N/D	No	Not observed, would be migratory but not resident
Prairie falcon (<i>Falco mexicanus</i>)	SSC	N/A	No	No	No	No	No	Not observed, but may use site for foraging

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**Table 5.3-4
Potential Sensitive Wildlife Species on the Spring Trails Project Site**

Species	Status Fed/State	In Critical Habitat?	Observed Onsite?					Likelihood of Occurrence
			1998	2002	2007	2008	2009	
Sharp-shinned hawk (<i>Accipiter striatus</i>)	SSC	N/A	Yes	Yes	Yes	No	No	Present, based on previous observations
White-tailed kite (<i>Elanus leucurus</i>)	SSC	N/A	No	No	No	No	No	Not observed, but may use site for foraging
Yellow-breasted chat (<i>Icteria virens</i>)	SSC	N/A	No	No	No	No	No	Not observed, moderate probability of occurrence in riparian habitat
Yellow warbler (<i>Dendroica petechia</i>)	SSC	N/A	No	No	No	No	No	Not observed, moderate probability of occurrence in riparian habitat
Bald eagle (<i>Haliaeetus leucocephalus</i>)	SE	N/A	N/D	No	N/D	N/D	No	Not observed, low probability of occurrence based on lack of suitable habitat
Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	SE	N/A	N/D	No	N/D	N/D	No	Not observed, low probability of occurrence (local occurrences extinct)
Swainson's hawk (<i>Buteo swainsonii</i>)	ST	N/A	N/D	No	No	No	No	Not observed, but may use site for foraging
Amphibians and Reptiles								
Arroyo southwestern toad (<i>Bufo californicus</i>)	FE, SSC	No	No	No	No	No	No	Marginally suitable habitat in Cable Creek, nearest recorded occurrence 5.9 miles, moderate potential for occurrence
California red-legged frog (<i>Rana aurora draytonii</i>)	FT, SSC	No	No	No	No	No	No	Not observed, low probability of occurrence due to lack of suitable habitat and lack of nearby occurrences
Mountain yellow-legged frog (<i>Rana muscosa</i>)	FT, SSC	No	No	No	No	No	No	Marginally suitable habitat in Cable Creek, nearest recorded occurrence 6.9 miles. Low potential for occurrence based on only marginally suitable habitat and distance to nearest known occurrence
California glossy snake (<i>Arizona elegans occidentalis</i>)	SSC	N/A	N/D	No	N/D	N/D	No	Not observed, moderate to high probability of occurrence based on presence of suitable habitat
California silvery legless lizard (<i>Anniella pulchra pulchra</i>)	SSC	N/A	N/D	No	No	No	No	Not observed, moderate to high probability of occurrence based on presence of suitable habitat

**Table 5.3-4
Potential Sensitive Wildlife Species on the Spring Trails Project Site**

Species	Status Fed/State	In Critical Habitat?	Observed Onsite?					Likelihood of Occurrence
			1998	2002	2007	2008	2009	
Coast patch-nosed snake (<i>Salvadora hexalepis virgultea</i>)	SSC	N/A	N/D	No	No	No	No	Not observed, high probability of occurrence based on presence of suitable habitat
Coastal western whiptail (<i>Cnemidophorus tigris multiscutatus</i>)	SSC	N/A	N/D	Yes	No	N/D	No	Present onsite based on observation in 2002
Large blotched salamander (<i>Ensatina eschscholtzii klauberi</i>)	SSC	N/A	N/D	No	N/D	N/D	No	Not observed, low probability of occurrence due to lack of suitable habitat (high stream gradients, lack of pools, high silt content)
Orange-throated whiptail (<i>Cnemidophorus hyperythrus beldingi</i>)	SSC	N/A	No	No	No	No	No	Not observed, low probability of occurrence due to fact that site is outside of the species historic range
Red diamond rattlesnake (<i>Crotalus exsul</i>)	SSC	N/A	N/D	No	N/D	N/D	No	Not observed, low probability of occurrence (outside geographic range)
Rosy boa (<i>Lichanura trivirgata</i>)	SSC	N/A	N/D	No	No	No	No	Not observed, high probability of occurrence
San Bernardino Mountain kingsnake (<i>Lampropeltis zonata parvirubra</i>)	SSC	N/A	N/D	No	N/D	N/D	No	Not observed, moderate to high probability of occurrence based on presence of suitable habitat
San Bernardino ring-neck snake (<i>Diadophis punctatus modestus</i>)	SSC	N/A	No	No	No	N/D	No	Not observed, high probability of occurrence based on presence of suitable habitat
San Diego banded gecko (<i>Coleonyx variegates abbotti</i>)	SSC	N/A	N/D	No	No	No	No	Not observed, moderate probability of occurrence
San Diego horned lizard (<i>Phrynosoma coronatum blainvillei</i>)	SSC	N/A	Yes	Yes	Yes	No	No	Present based on surveys and observations
San Gabriel Mountains slender salamander (<i>Batrachoseps gabrieli</i>)	SSC	N/A	N/D	No	N/D	N/D	No	Not observed, low probability of occurrence due to lack of suitable habitat (high stream gradients, lack of pools, high silt content)
Southwestern pond turtle (<i>Clemmys marmorata pallida</i>)	SSC	N/A	No	No	No	No	No	Not observed, low probability of occurrence due to lack of suitable habitat

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**Table 5.3-4
Potential Sensitive Wildlife Species on the Spring Trails Project Site**

Species	Status Fed/State	In Critical Habitat?	Observed Onsite?					Likelihood of Occurrence
			1998	2002	2007	2008	2009	
Two-striped garter snake (<i>Thamnophis hammondi</i>)	SSC	N/A	No	No	No	N/D	No	Not observed, high probability of occurrence based on presence of suitable habitat
Western spadefoot toad (<i>Scaphiopus hammondi</i>)	SSC	N/A	No	No	No	No	No	Not observed, low probability of occurrence due to lack of suitable habitat
Yellow-blotched salamander (<i>Ensatina eschscholtzii</i>)	SSC	N/A	N/D	No	N/D	N/D	No	Not observed, moderate to high probability of occurrence based on presence of suitable habitat
Southern rubber boa (<i>Charina bottae umbricata</i>)	ST	N/A	No	No	No	No	No	Not observed, low probability of occurrence due to site being well below species elevation range
Fish								
Unarmored threespine (<i>Gasterosteus aculeatus williamsonii</i>)	FE, SE	No	N/D	No	N/D	N/D	No	Absent based on lack of suitable habitat (species is also extinct from Santa Ana River watershed)
Santa Ana sucker (<i>Catostomus santaanae</i>)	FT, SSC	No	N/D	No	No	N/D	No	Not observed, very low probability of occurrence due to lack of suitable habitat and elevation of site
Arroyo chub (<i>Gila orcutti</i>)	SSC	N/A	N/D	No	N/D	N/D	No	Not observed, very low probability of occurrence due to lack of suitable habitat and elevation of site
Santa Ana speckled dace (<i>Rhinichthys osculus</i>)	SSC	N/A	N/D	No	N/D	No	No	Not observed, very low probability of occurrence due to lack of suitable habitat
Invertebrates								
Quino checkerspot butterfly (<i>Euphydryas editha quino</i>)	FE	No	No	N/D	N/D	N/D	No	Not observed, low probability of occurrence due to lack of suitable habitat

**Table 5.3-4
Potential Sensitive Wildlife Species on the Spring Trails Project Site**

Species	Status Fed/State	In Critical Habitat?	Observed Onsite?					Likelihood of Occurrence							
			1998	2002	2007	2008	2009								
<p>Sources: 1999: PCR Services Corporation. Biological Resources Assessment and Report for the Martin Ranch Property, San Bernardino County, California. (Note: surveys conducted in 1998). 2002: S.C. Dodd Biological Consulting. Results of a Live Trapping Survey for the Federally Endangered San Bernardino Kangaroo Rat on the Secondary Access Route for the Proposed Martin Ranch Project. 2002: White and Leatherman Bioservices. Biological Technical Report Update: Proposed Martin Ranch Project, San Bernardino, California. 2002: White and Leatherman Bioservices. Results of Focused Presence/Absence Surveys for the Coastal California Gnatcatcher on the Martin Ranch Access Road Project. 2002: White and Leatherman Bioservices. Biological Technical Report: Proposed Secondary Access Road, Martin Ranch Project, San Bernardino, California. 2007: Michael Brandman Associates. General Biological Resources Report, Martin Ranch Project Site, Unincorporated San Bernardino County, California. 2007: Michael Brandman Associates. Least Bell's Vireo and Southwestern Willow Flycatcher Focused Survey Report, Martin Ranch. 2008: Michael Brandman Associates. Habitat Assessment Report, Spring Trails Project Site (Access Roads), Unincorporated San Bernardino County, California. 2009: PBS&J. Delineation of Jurisdictional Waters and Wetlands, Spring Trails Specific Plan (Access Roads), San Bernardino County, California. 2009: PBS&J. Delineation of Jurisdictional Waters and Wetlands, Spring Trails Specific Plan, San Bernardino County, California. 2009: PBS&J. San Bernardino Kangaroo Rat Presence/Absence Trapping Surveys, Spring Trails Project Site. 2009: PBS&J. Rare Plant Survey Letter Report, Spring Trails Specific Plan.</p>															
<p>Notes: N/D = No data; N/A = Not applicable</p> <table> <tr> <td>Federal (USFWS):</td> <td>State (CDFG):</td> </tr> <tr> <td>FE: Federally listed, endangered</td> <td>SE: State listed, endangered</td> </tr> <tr> <td>FT: Federally listed, threatened</td> <td>ST: State listed, threatened</td> </tr> <tr> <td></td> <td>SSC: Species of Special Concern</td> </tr> </table>								Federal (USFWS):	State (CDFG):	FE: Federally listed, endangered	SE: State listed, endangered	FT: Federally listed, threatened	ST: State listed, threatened		SSC: Species of Special Concern
Federal (USFWS):	State (CDFG):														
FE: Federally listed, endangered	SE: State listed, endangered														
FT: Federally listed, threatened	ST: State listed, threatened														
	SSC: Species of Special Concern														

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Mammals

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

Mammal-trapping sessions conducted in 1998, 2002, 2007, and 2009 revealed the presence of numerous small mammal species within the Spring Trails project area. Species found include deer mouse (*Peromyscus maniculatus*), California mouse (*Peromyscus californicus*), cactus mouse (*Peromyscus eremicus*), dusky-footed woodrat (*Neotoma fuscipes*), San Diego pocket mouse (*Chaetodipus fallax*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), western harvest mouse (*Reithrodontomys megalotis*), and Pacific kangaroo rat (*Dipodomys agilis*).

Special Status Mammal Species

San Bernardino kangaroo rat (*Dipodomys merriami parvus*) (SBKR) is listed as endangered under the FESA. The species was not captured on the site during any of the trapping efforts. However, the project site does provide suitable habitat for the species, and SBKR were trapped on a nearby property in 2004. Additionally, a portion of the proposed secondary access road alignment is within designated USFWS critical habitat for SBKR. Therefore, the area has a high probability of being occupied by SBKR, and because it is within critical habitat and a federal discretionary action would be required (issuance of a Section 404 permit by the US Army Corps of Engineers), consultation with the USFWS under Section 7 of the ESA would be required.

San Diego pocket mouse (*Chaetodipus fallax fallax*) is a California Species of Special Concern (SSC). The species was captured on the project site during each of the trapping efforts. Potential impacts to San Diego pocket mouse are not typically considered significant under CEQA because this species is widespread and abundant on a local and regional level.

Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) is also an SSC. The species was also captured on the project site during each of the trapping efforts. Unlike the San Diego pocket mouse, the range and preferred habitat of Los Angeles pocket mouse is narrow, and the species is not known to be locally or regionally abundant. Therefore, even though the status of SSC does not afford any specific legal protection, potential impacts to the species may be of concern to regulatory agencies such as CDFG.

Birds

A number of bird species have been directly observed on the site, or have been determined to be present based on vocalizations. General habitat assessments were conducted on the project site in 1998, 2002, 2007, 2008, and 2009. In addition, focused surveys were conducted for coastal California gnatcatcher (CAGN) in 1998, 2002, and 2007. Focused surveys were also conducted for least Bell's vireo (LBV) and southwestern willow flycatcher (SWF) in 2007.

A summary of sensitive bird species with the potential to occur on the project site is presented in Table 5.3-4 together with a listing of the specific reports and surveys from which the information was derived. A narrative discussion of the sensitive species known to occur on the site or otherwise deserving of additional explanation is presented below.

Special Status Bird Species

Coastal California gnatcatcher is listed as threatened under the FESA. The species was not observed on the site during any of the survey efforts. Portions of the project site were formerly included within USFWS-



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designated critical habitat for the species. However, USFWS revisions to CAGN critical habitat in 2007 modified the extent of designated habitat throughout the region and the project site is now no longer within designated critical habitat.

Based on repeated negative findings for CAGN during numerous survey efforts, as well as the site's exclusion from designated critical habitat, it is reasonable to assume that the species does not occur upon the project site. However, suitable habitat is present on the site so it is also reasonable to conclude that the species has a low to moderate potential to move onto the site at some point in the future.

The Sycamore Alluvial Woodland plant communities in Cable Creek and Meyers Creek provide suitable habitat for the SWF which is listed as endangered under both the FESA and the CESA. Focused surveys conducted in 2007 returned negative findings, and previous and subsequent general habitat assessment surveys have also been negative. The nearest recorded occurrence of the species is seven miles from the project site. However, the riparian habitat on the site in 2007 was still recovering from the 2003 Old Fire and was observed to be nearly fully recovered in 2009. As this habitat more fully matures it will provide more suitable habitat for the species. Therefore, owing to the quality of the available habitat on the site, it is reasonable to assume that there is a moderate potential for the species to occur.

The riparian woodland plant communities in Cable Creek and Meyers Creek provide suitable habitat for the LBV which is listed as endangered under both the FESA and the CESA. A focused survey for the species conducted in 2007 confirmed species presence off the property to the west of the site in the relatively lush riparian areas of Cable Creek. These riparian areas extend northeastwards along Cable Creek into the northwestern portion of the site, so there is a high probability that LBV could utilize the riparian habitat that is present on the northwestern side of the project site. It is not known if the observation that was made in 2007 was a bird that was actively nesting in the area or was simply passing through. As the riparian vegetation in this area continues to recover from the effects of the 2003 Old Fire, it will provide more suitable high quality habitat for LBV. Based on the findings of the 2007 focused survey and the presence of suitable habitat, it is therefore assumed that this portion of the project area is occupied by LBV.

Reptiles and Amphibians

A summary of sensitive reptile and amphibian species with the potential to occur on the project site is presented in Table 5.3-4, together with a listing of the specific reports and surveys from which the information was derived. A narrative discussion of the sensitive species known to occur on the site or otherwise deserving of additional explanation is presented below.

Special Status Reptile and Amphibian Species

The perennial stream in Cable Creek provides suitable habitat for arroyo southwestern toad (*Bufo californicus*); however, focused surveys conducted in 2007 in the vicinity were negative. The closest recorded occurrence is approximately six miles from the project site. However, owing to the presence of suitable habitat, there is a moderate potential for this species to occur on the project site.

A habitat evaluation conducted for California red-legged frog (*Rana aurora draytonii*) in 2002 (WBL 2002) determined that suitable habitat for the species is not present and that the potential for species occurrence on the site is low. This is largely due to the high stream gradient, lack of pools, and the high silt content of Cable Creek. These characteristics are not conducive to supporting this species. Historical occurrences of the species were known to occur in the Inland Empire and western San Bernardino Mountains, but those populations are now presumed to have been extirpated.

A habitat evaluation conducted for mountain yellow-legged frog (*Rana muscosa*) in 2002 determined that marginally suitable habitat for the species is present along Cable Creek through the northwestern corner of

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the project site and for at least one mile upstream of the site (WLB 2002). Focused surveys for the species conducted that same year, however, failed to detect any mountain yellow-legged frogs within any of the areas where suitable habitat was present. The survey was notable in that no evidence of any stream-breeding amphibians was detected during the survey. The surveyor determined that the likely reason for such a low diversity of herpetofauna was the combined effects of sedimentation, water diversion, and human disturbance along the creek bed. It is likely that habitat for this species has been further degraded by upstream effects associated with the 2003 Old Fire.

The nearest known extant occurrence of mountain yellow-legged frogs to the project site is City Creek, approximately seven miles to the east of the site. Until this population was discovered in 1999, it was believed that the species had been extirpated from the San Bernardino Mountains. However, based on the survey findings on the project site, the distance to the nearest known occurrence, and the presence of only marginally suitable habitat on the site, it is reasonable to assume that the species is not present on the project site and has a low potential for future occurrence.

Wildlife Movement Corridors

Formal wildlife movement corridor studies such as the use of track plates, camera stations, scent stations, or snares have not been conducted on the project site. However, general conclusions can be made regarding the presence and movement of wildlife on the site based on habitat characteristics and the observation of animals and their sign during reconnaissance surveys. In addition, a regional-level evaluation of wildlife corridors and linkages was recently compiled (South Coast Missing Linkages Project 2004), and that information can also be used in determining the value of the site to wildlife.

Based on the information that has been gathered on the site over the last decade and on the information contained in the available literature, it can be determined that the project site is likely to be utilized by a variety of wildlife species for foraging and movement. This finding has been consistently reported in each of the habitat assessments and focused surveys conducted on the site since 1998. The reasons for this finding are as follows:

- 1) There are few physical barriers surrounding the site, especially in the northern half of the property.
- 2) Adjacent properties to the east, north, and west are mostly undeveloped and part of the much larger natural open space of the San Bernardino National Forest (SBNF).
- 3) The large expanse of undisturbed open space surrounding the site harbors an abundance of wildlife which may, in turn, facilitate a substantial amount of wildlife movement and use of the site.
- 4) Cable Creek Canyon provides a natural wildlife corridor and also contains a year-round water source for wildlife that is not common in the region. The vegetation associated with this water source also provides cover and food resources for animals traveling between upland areas above the project site to valley areas below the site, and vice versa. This corridor allows animals to travel from higher elevation montane coniferous forest communities, through oak woodland and chaparral habitats, and then to lowland alluvial communities while accessing the additional resources provided by each community.
- 5) Interviews with local residents and persons familiar with the site have indicated that substantial numbers of animals use the site. Specific large mammal species for which multiple observations have been recorded include black bear, mule deer, and mountain lion (*Felis concolor*).



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- 6) The South Coast Missing Linkages Project (2004) identified the site and the surrounding area as an important component in maintaining wildlife population linkages between the San Bernardino Mountains and the San Gabriel Mountains to the west of the site. Species such as mountain lion, American badger (*Taxidea taxus*), mule deer, and a number of small mammal and bird species were identified as being likely to use the site and the surrounding area for travel between various habitat areas in the greater Cajon Pass area.

Figure 5.3-2 illustrates the generalized locations of wildlife movement corridors on the project site. Canyon bottoms and riparian areas provide the greatest opportunity for wildlife movement since they provide suitable cover, forage resources, and year-round or seasonal water sources. Another area on the project site that appears to be utilized by wildlife is along the eastern boundary of the site. Animals traveling within this area appear to be using it to access the seasonal wetland that is located in the southern portion of the site (see the discussion below on jurisdictional waters and wetlands and also Figure 5.3-3 for the location of this resource).

Wildlife Nursery Sites

In regard to wildlife nursery locations, the site has been confirmed to provide fawning habitat for mule deer. Groups of does and fawns have been observed on the site in substantial quantities (PBS&J 2009e). Based on the time of year that these observations were made, it is reasonable to assume that the fawns were born on the project site. The site is likely used as a nursing area because of the presence of flat terrain, high-quality foraging habitat, high quality cover habitat, and a year-round water source. Based on each of these considerations, it seems reasonable to conclude that the site is a wildlife nursery site for mule deer. Figure 5.3-2 shows the locations of specific areas on the project site that are likely to be used for mule deer nursery sites.

Nesting Birds

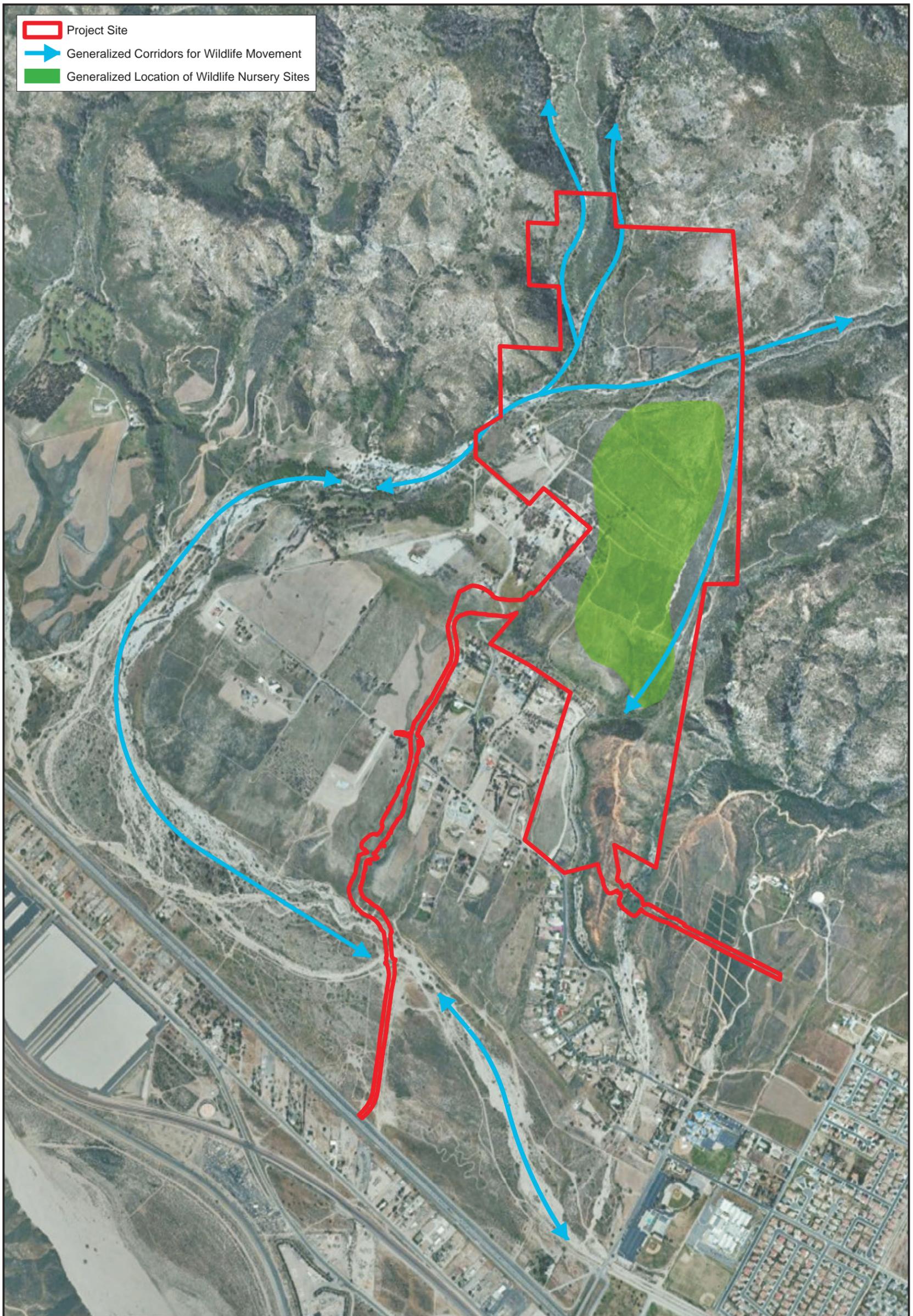
The project site contains a variety of nesting habitats for many avian species. These habitats include trees, shrubs, and other vegetation or landform features in which birds can construct nests and raise young.

Raptor Foraging Habitat

Based on observations recorded in each of the biological resources assessments prepared for the site, there is evidence that the project site provides limited amounts of raptor foraging habitat. The site has been shown to be used by Swainson's hawk and sharp-shinned hawk, for instance, as well as a number of other raptor species, including great-horned owl, turkey vulture, red-tailed hawk, red-shouldered hawk, and American kestrel.

Despite the relatively large number of raptor species observed on the site over the years, it does not appear that the site is frequented for long periods of time by raptor species. The project site lacks expansive grassland habitat and is generally dominated by dense Riversidean sage scrub and chaparral. These habitats do not provide particularly favorable conditions for foraging raptors due to the lack of prey visibility. It can therefore be concluded that the site provides only marginally suitable foraging habitat for raptors and that these species would be more likely to rely on other areas for the majority of their foraging activities.

Wildlife Movement Corridors and Mule Deer Nursery Site

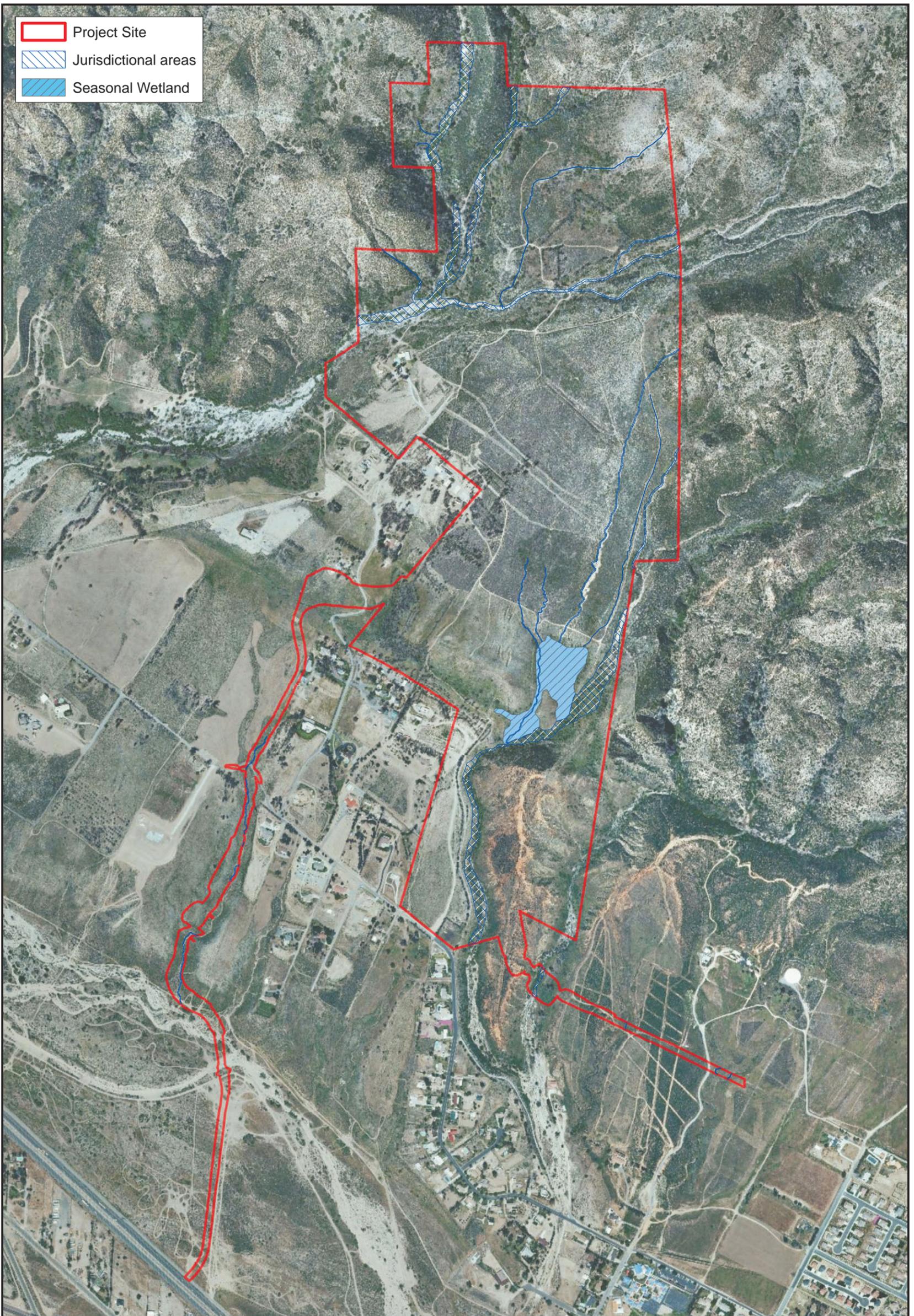


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Jurisdictional Wetland Boundaries



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Critical Habitat

Portions of the proposed secondary access road alignment are within a designated critical habitat area for SBKR, per a January 8, 2011, judicial ruling, which reverted designated SBKR critical habitat areas from the USFWS's revised 2008 designation back to the substantially larger areas originally designated by USFWS in 2002 (see Figure 5.3-4). Portions of the site were also formerly within designated critical habitat for CAGN, but the USFWS revised the designated critical habitat for CAGN in 2007 and the site is no longer within critical habitat for the species.

Loss or adverse modifications of critical habitat must be evaluated by federal agencies prior to authorizing or conducting a major federal action, even if the listed species is determined to be absent from the area in question. Since the project would require a Section 404 permit from the US Army Corps of Engineers (Corps), a federal nexus is established, and the Corps would be required to consult with the USFWS prior to the issuance of the permit.

Jurisdictional Waters and Wetlands

The jurisdictional delineations prepared for the project site (PBS&J 2009 and 2011) determined that approximately 15.8 acres within the project site could be under the jurisdiction of Corps and the Regional Water Quality Control Board (RWQCB). The delineations also determined that the project site supports approximately 27.1 acres of streambed and banks, and associated riparian vegetation that could fall under the regulatory authority of the CDFG. Figure 5.3-3 shows the general location of these jurisdictional features. Specific details of each tributary, along with detailed maps and illustrations, are contained in Appendix D7 and D8.

A seasonal wetland is present in the southern third of the site near the San Andreas Fault (see Figure 5.3-3). This feature is likely the result of groundwater upwelling along the fault. This feature is approximately 6.2 acres in size and is included in the overall jurisdictional acreage quantities (27.1 acres).

Regulatory Setting

The project area is subject to laws, regulations, and other directives that are applicable to biological resources. This section provides an overview of each of these directives.

Federal and State Regulations

Federal Endangered Species Act

The USFWS is responsible for the administration of the FESA. The FESA provides a process for listing species as either threatened or endangered, and methods for protecting listed species. The FESA defines "endangered" as any plant or animal species that is in danger of extinction throughout all or a significant portion of its known geographic range. A "threatened" species is a species that is likely to become endangered. A "proposed" species is one that has been officially proposed by the USFWS for addition to the federal threatened and endangered species list.

The FESA prohibits take of threatened or endangered species, which means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. Take can include disturbance to habitats used by a threatened or endangered species during any portion of its life history. The presence of any federally threatened or endangered species in a project area generally places severe constraints on development, particularly if development would result in take of the species or its habitat.



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Under the regulations of the FESA, the USFWS may authorize take when it is incidental to, but not the purpose of, an otherwise lawful act.

Critical Habitat

The USFWS is required under the FESA to designate specific areas as protected critical habitat zones. Critical habitats are required to contain all areas essential to the conservation of the target species. Such lands may be private or public. Federal agencies are prohibited from authorizing, funding, or carrying out actions that destroy or adversely modify critical habitat.

Section 7 and 10 Compliance

There are two sections of the FESA, Sections 7 and 10, that authorize incidental take. Section 7 regulates take associated with federal projects or projects that require a federal permit. Section 10 regulates take on nonfederal lands or for projects without a federal nexus.

Federal agencies must undertake programs for the conservation of endangered and threatened species and their critical habitat, and are prohibited from authorizing, funding, or carrying out any action that will jeopardize a listed species. As defined in the FESA, “individuals, organizations, states, local governments, and other non-federal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a federal permit, license, or other authorization, or involve federal funding.”

Even though the project is being reviewed by a nonfederal entity (the City of San Bernardino), the project is subject to Section 7 of the FESA due to the presence of critical habitat on a portion of the project site, and also because the project would require the issuance of a federal Section 404 permit from the Corps. Therefore, a federal nexus would be established, and the rules of Section 7 of the FESA would apply to the project. The Section 7 process is usually completed via consultation with the USFWS. During the consultation process, the USFWS may dictate conditions or mitigation that must be implemented to avoid or mitigate take of a listed species.

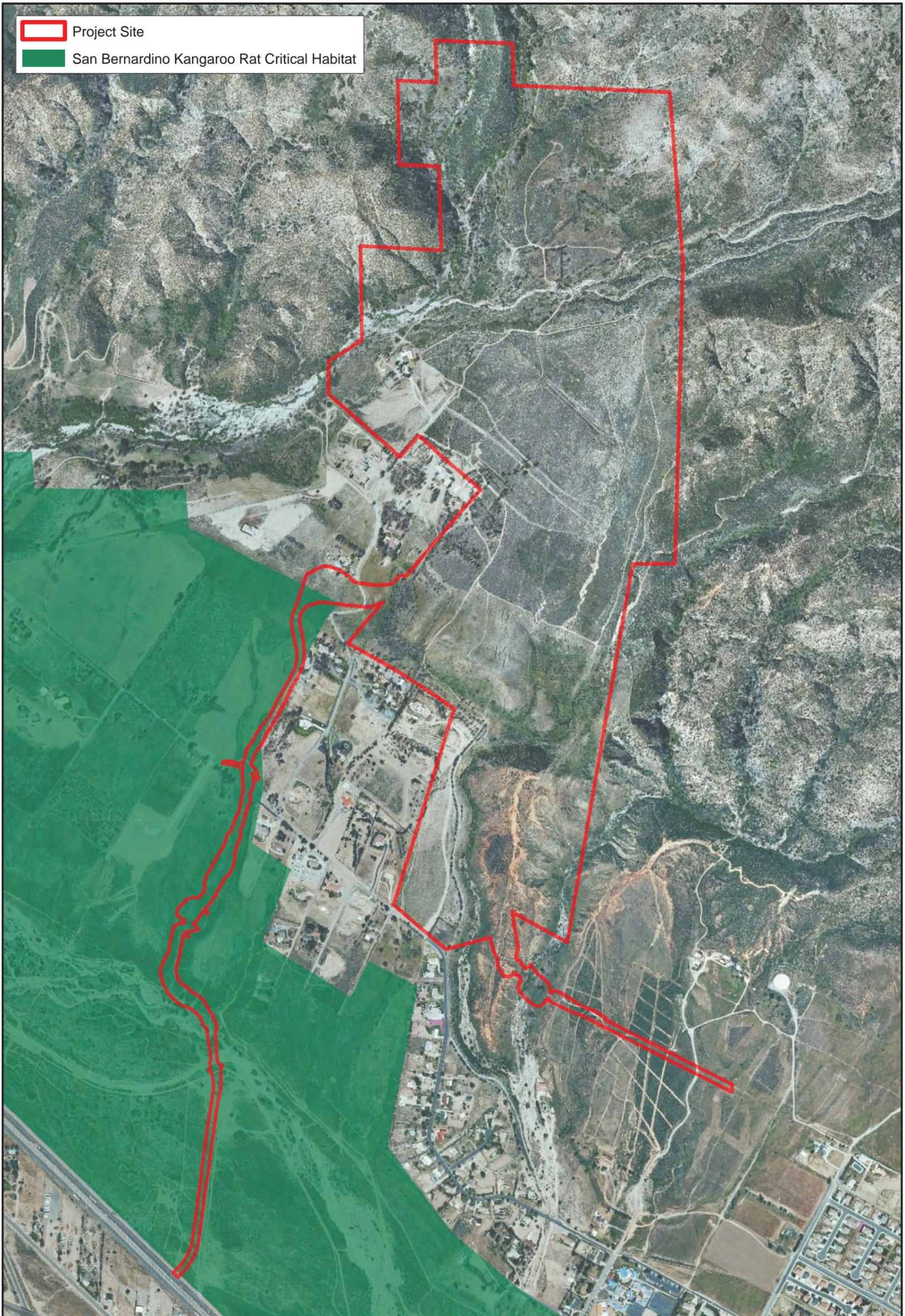
California Endangered Species Act

The State of California considers 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 considered 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. The designation of rare species applies only to California native plants. State threatened and endangered species include both plants and wildlife, with the exception of invertebrates, and are legally protected against take.

California Species of Special Concern

SSC status applies to animals not listed under the FESA or the CESA, but which nonetheless are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. SSC species share one or more of the following criteria:

San Bernardino Kangaroo Rat Critical Habitat



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- 1) Occur in small, isolated populations or in fragmented habitat and are threatened by further isolation and population reduction.
- 2) Show marked population declines. Population estimates are unavailable for the vast majority of taxa. Species that show a marked population decline, yet are still abundant, do not meet the Special Concern definition, whereas marked population decline in uncommon or rare species is an inclusion criterion.
- 3) Depend on a habitat that has shown substantial historical or recent declines in size. This criterion infers the population viability of a species based on trends in the habitats upon which it specializes. Coastal wetlands, alluvial fan sage scrub and coastal sage scrub in the southern coastal basins, and arid scrub in the San Joaquin Valley are examples of California habitats that have seen dramatic reductions in size in recent history. Species that specialize in these habitats generally meet the criteria for Threatened or Endangered status or Special Concern status.
- 4) Occur only in or adjacent to an area where habitat is being converted to land uses incompatible with the animal's survival.
- 5) Have few California records or which historically occurred here but for which there are no recent records.
- 6) Occur largely on public lands, but where current management practices are inconsistent with the animal's persistence.

The SSC designation is intended to result in special consideration for these species by the CDFG, land managers, and others, and is intended to focus attention on the species to help avert the need for listing under federal and state endangered species laws and the necessity of recovery efforts. This designation does not provide specific legal protection, but signifies that these species are recognized as vulnerable by CDFG.

California Native Plant Society

CNPS is a statewide resource conservation organization that has developed an inventory of California's special-status plant species. This inventory is a summary of information on the distribution, rarity, and endangerment of California's vascular plants. CNPS cooperates under a memorandum of understanding with CDFG to identify which plants may be rare or threatened, to evaluate threats to them, to share occurrence data, and to plan protective measures. In this role, CNPS evaluates plant taxa according to abundance, distribution, and threats, and it ranks rare species on a series of lists. The joint CNPS Rare Plant Program and CDFG's CNDDDB Plant Status Review Process for CNPS List and CDFG Special Plants List status is a review process that evaluates existing literature, reviews herbarium collections, and communicates with experts before making a recommendation for listing. This rare plant inventory consists of the following lists:

- List 1A plant species are presumed to be extinct in California because they have not been seen in the wild for many years.
- List 1B plants are considered rare, threatened, or endangered throughout their range.
- List 2 plant species are considered rare, threatened, or endangered in California, but more common in other states.



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- Plant species on lists 1A, 1B, and 2 meet CDFG criteria for endangered, threatened, or rare listing. Impacts to these plants are usually considered to be significant under CEQA.
- Plant species for which CNPS requires additional information in order to properly evaluate their status are included on List 3.
- List 4 plant species are those of limited distribution in California but whose susceptibility to threat is considered low at the current time.

The CNPS Inventory has been a broadly recognized and accepted source of science-based information on the rarity, endangerment, and distribution of California special-status plants since its first edition in 1974. By CNPS's standards, the plants on CNPS Lists 1A, 1B and 2 meet the definitions of Sections 2062 and 2067 (CESA) of the California Fish and Game Code, and are eligible for state listing. Those plants appearing on CNPS List 1B or 2 meet CEQA Section 15380 criteria relating to rare, endangered, or threatened species, and adverse effects to these species are generally considered "significant" except where substantial new data may show otherwise.

Migratory Bird Treaty Act

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

The CDFG administers the California Fish and Game (CFG) Code. Particular sections of the CFG Code are applicable to natural resource management. For example, Section 3503 states it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird that is protected under the MBTA. The code further protects all birds of prey such as hawks and owls and their eggs and nests from any form of take.

Based on the requirements of the MBTA and the CFG Code, it is unlawful to disturb the nests of birds during nesting season. Nesting season is typically considered to begin on February 15 and run through August 31, and disturbance to nesting birds may not occur during that time. Avoidance of nesting birds is the only way to eliminate impacts during nesting season. Obviously, the best way to avoid impacts to nesting birds is to perform any potential nest-disturbing activities, such as construction, outside of the nesting season (i.e., September 1 through February 15). If construction must occur during the nesting season, then preconstruction nesting bird surveys must be conducted no more than 30 days prior to initiation of construction. If nests are discovered, they must be avoided by an appropriate buffer, as determined by a qualified wildlife biologist. The temporary "no construction" area would need to be maintained until the nest has completed its cycle, as determined by a qualified wildlife biologist. Once the nesting cycle has been completed, construction in the area may resume.

Clean Water Act, Section 404

The Corps administers Section 404 of the federal Clean Water Act (CWA), which regulates the discharge of dredge and fill material into waters of the United States. To this end, the Corps has established a series of nationwide permits that authorize certain activities in waters of the United States if a proposed activity can demonstrate compliance with standard conditions. Normally, the Corps requires an individual permit for an activity that would affect an area equal to or in excess of 0.5 acre of waters of the United States. Projects that result in impacts to less than 0.5 acre can generally be conducted pursuant to one of the nationwide permits,

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if consistent with the standard permit conditions. Use of any nationwide permit is contingent on the activities having no impacts to endangered species.

Waters of the United States

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

In 2001, the Corps South Pacific Division issued Guidelines for Jurisdictional Delineations for Waters of the United States in the Arid Southwest. The purpose of this document was to provide background information concerning physical characteristics of dry land drainage systems. These guidelines were reviewed and used to identify jurisdictional drainage features on the Spring Trails project site.

In the 2006 U.S. Supreme Court case *Rapanos v. United States*, the Court clarified that the term "waters of the United States" "includes only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic features' that are described in ordinary parlance as 'streams[,] ... oceans, rivers, [and] lakes.'"

All waters with a "significant nexus" to "navigable waters" are covered under the CWA; however, the term "significant nexus" remains open to judicial interpretation and considerable controversy. Some regulations include water features such as intermittent streams, playa lakes, prairie potholes, sloughs, and wetlands as waters of the United States. Others do not; the matter is still unresolved.

The plurality opinion in *Rapanos* stated that the CWA confers federal jurisdiction over nonnavigable waters only if they exhibit a relatively permanent flow, such as a river, lake, or stream. In addition, a wetland is jurisdictional if there exists a continuous surface water connection between it and a relatively permanent water body, such that it is difficult to determine where the water body ends and the wetland begins.

Wetlands

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

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

Wetland vegetation is characterized by vegetation where more than 50 percent of the composition of dominant plant species is obligate wetland, facultative wetland, and/or facultative species that occur in



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wetlands. A wetland must show connectivity to a stream course in order for such a feature to be considered jurisdictional.

Other Activities Regulated by the US Army Corps of Engineers

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

Clean Water Act, Sections 401 and 402

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

Porter-Cologne Water Quality Act

The RWQCB regulates actions that would involve discharging waste or proposing to discharge waste within any region that could affect the water of the state, pursuant to provisions of the Porter-Cologne Water Quality Act. Waters of the state are any surface water or groundwater, including saline waters, within the boundaries of the state.

Activities Regulated by the Regional Water Quality Control Board

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

Dischargers whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 99-08-DWQ). Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP should contain a site map(s) that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list best management practices (BMPs) the discharger will use to protect stormwater runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303 (d) list for sediment. Section A of the Construction General Permit describes the elements that must be contained in a SWPPP.

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California Fish and Game Code, Section 1600

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

Furthermore, CDFG jurisdiction is often extended to habitats adjacent to watercourses, such as oak woodlands in canyon bottoms or willow woodlands that function as part of the riparian system. A number of court cases have further extended CDFG jurisdiction to include watercourses that seemingly disappear, but reemerge elsewhere. Under the CDFG definition, a watercourse need not exhibit evidence of an OHWM to be claimed as jurisdiction. However, CDFG does not regulate isolated wetlands, that is, those that are not associated with a river, stream, or lake.

Activities Regulated by the California Department of Fish and Game

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

Existing Conservation Plans and Areas

San Bernardino Kangaroo Rat Critical Habitat

Portions of the proposed secondary access road alignment are within designated critical habitat areas for SBKR. Portions of the site were also formerly within designated critical habitat for CAGN, but the USFWS revised the designated critical habitat for CAGN in 2007 and the site is no longer within critical habitat for that species.

Loss or adverse modifications of critical habitat must be evaluated by federal agencies prior to authorizing or conducting a major federal action, even if the area in question is determined to be absent of the listed species. Since the project would require a Section 404 permit from the Corps, a federal nexus is established, and the Corps would be required to consult with the USFWS prior to the issuance of the permit.

San Bernardino National Forest Resource Management Plan

SBNF public lands, which are managed by the US Forest Service (USFS), are found immediately adjacent to the project site. In addition, the northern portion of the project site is a privately owned inholding within the SBNF boundary. However, only federally owned/nonprivate lands within the forest boundary are subject to the SBNF Land Management Plan (LMP) (USFS 2006b).

While the project site is not subject to the forest's LMP, the USFS may have an interest in activities that occur adjacent to SBNF land. The USFS refers to developed areas around its lands as the Wildland-Urban Interface (WUI), and activities within WUI areas can have both direct and indirect impacts on USFS lands, especially in regard to the increased danger of human-caused fires, the introduction of invasive species, unmanaged recreation, and trespass. Since the Spring Trails project is within the forest's WUI, the USFS may have an interest in the project even though the project site is not under its jurisdiction.

South Coast Missing Linkages Project

The South Coast Missing Linkages Project (SCMLP) is an inventory of critical linkages and wildlife corridors in southern California that are believed to be necessary for the continued functioning of area ecosystems.



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The project is a joint effort undertaken by a number of federal land management and regulatory agencies, state resource management agencies, and national and local conservation organizations. Notable participants include the SBNF, the National Park Service, the California State Parks Department, the Wildlands Conservancy, and the Nature Conservancy. The project produced a report in 2004 entitled *A Linkage Design for the San Gabriel-San Bernardino Connection*. The report identified known wildlife corridors in the Cajon Pass area, including the proposed project area, and recommended actions to conserve or enhance wildlife movement capabilities in the area.

The SCMLP does not have the force of law; rather, it is considered a baseline document that provides guidance to land managers and lead agencies in meeting regional conservation goals relating to wildlife movement and species viability.

City of San Bernardino General Plan

The City of San Bernardino General Plan Natural Resources and Conservation Element (2005) adopted a number of goals, policies, and implementation measures regarding biological resources. The General Plan also designated certain areas within the City and its sphere of influence as Biological Resource Management Areas (BRMAs). According to Figure NRC-2 of the General Plan, the project site is located within a designated BRMA and is thus subject to a number of requirements, as specified under Policies 12.1.3 and 12.1.4. Relevant goals and policies are listed below.

- Goal 12.1** Conserve and enhance San Bernardino's biological resources.
- Policy 12.1.2 Site and develop land uses in a manner that is sensitive to the unique characteristics of and that minimizes the impacts upon sensitive biological resources.
- Policy 12.1.3 Require that all proposed land uses in the "Biological Resource Management Area" (BRMA), Figure NRC-2, be subject to review by the Environmental Review Committee (ERC).
- Policy 12.1.4 Require that development in the BRMA:
- a) Submit a report prepared by a qualified professional (s) that addresses the proposed project's impact on sensitive species and habitat, especially those that are identified in State and Federal conservation programs;
 - b) Identify mitigation measures necessary to eliminate significant adverse impacts to sensitive biological resources;
 - c) Define a program for monitoring, evaluating the effectiveness of, and ensuring the adequacy of specified mitigation measures; and
 - d) Discuss restoration of significant habitats.
- Goal 12.2** Protect riparian corridors to provide habitat for fish and wildlife
- Policy 12.2.1 Prohibit development and grading within 50 feet of riparian corridors, as identified by a qualified biologist, unless no feasible alternative exists.
- Policy 12.2.2 Generally permit the following uses within riparian corridors:
- a) Education and research, excluding buildings and other structures;

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- b) Passive (non-mechanized) recreation;
 - c) Trails and scenic overlooks on public land;
 - d) Fish and wildlife management activities;
 - e) Necessary water supply projects;
 - f) Resource consumptive uses as provided for in the CFG Code and Title 14 of the California Administrative Code;
 - g) Flood control projects where no other methods are available to protect the public safety;
 - h) Bridges and pipelines when supports are not in significant conflict with corridor resources.
- Policy 12.2.3 Pursue voluntary open space or conservation easements to protect sensitive species or their habitats.
- Policy 12.2.4 Development adjacent to riparian corridors shall:
- a) Minimize removal of vegetation;
 - b) Minimize erosion, sedimentation, and runoff by appropriate protection or vegetation and landscape;
 - c) Provide for sufficient passage of native and anadromous fish as specified by the CDFG;
 - d) Minimize wastewater discharges and entrapment;
 - e) Prevent groundwater depletion or substantial interference with surface flows and provide for natural vegetation buffers.
- Policy 12.2.5 Permit modifications of the boundaries of the designated riparian corridors based on field research and aerial interpretation data as part of biological studies.
- Goal 12.3** Establish open space corridors between and to protect wildlands.
- Policy 12.3.1 Identify areas and formulate recommendations for the acquisition of property, including funding, to establish a permanent corridor contiguous to the National Forest via Cable Creek and/or Devil Canyon. The City shall consult with various federal, state and local agencies and City departments prior to the adoption of any open space corridor plan.
- Policy 12.3.3 Establish the following habitat types as high-priority for acquisition as funds are available:
- a) Habitat of endangered species;
 - b) Alluvial scrub vegetation;



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- c) Riparian vegetation dominated by willow, alder, sycamore, or native oaks; and
- d) Native walnut woodlands.

City of San Bernardino Tree Ordinance

The City of San Bernardino has adopted an ordinance (City of San Bernardino Municipal Code Section 19.28.090) that is designed to conserve important tree resources. The text of the ordinance is as follows:

Removal of healthy, shade providing, aesthetically valuable trees shall be discouraged. In the event that more than five trees are to be cut down, uprooted, destroyed or removed within a 36 month period, a permit shall first be issued by the Department of Parks, Recreation and Community Services.

Prior to any permit issued for tree removal, all existing trees on-site shall be surveyed by the Department of Parks, Recreation and Community Services at the developer's expense. Unless there is a pre-approved tree replacement plan, each tree that is removed in a new subdivision and is considered to be of significant value by the Department shall be replaced with a 36-inch box specimen tree in the subdivision in addition to any other required landscaping. Such a plan does not necessarily require a tree-for-tree replacement provision. Commercial tree farms, City Government projects, and individual, single-family residential lots less than one acre shall be exempt from this provision.

5.3.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project may have a significant effect on the environment if the project would:

- B-1 Have a substantial 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 California Department of Fish and Game or U.S. Fish and Wildlife Service.
- B-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- B-3 Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- B-4 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.
- B-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- B-6 Conflict with the provisions of an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.3.3 Environmental Impacts

The analysis in this section considers the impacts that could result from project implementation. For purposes of this discussion, the area of potential impact is defined as those areas that would be directly impacted within the project footprint, which includes all graded areas, access roads, and the proposed fuel modification zones. See Figure 5.1-1, *Development Footprint*, in Section 5.1, *Aesthetics*, for an illustration of the project's development footprint.

The proposal also includes the annexation of an adjacent 26.4-acre area consisting of six parcels owned by various property owners. A land use proposal has not been submitted for this 26.4-acre area and it is not owned or otherwise under the control of the applicant. For these reasons, no development is expected to occur on these parcels. Therefore, the annexation would not contribute to impacts related to biological resources.

The Spring Trails project assumes that the Southern California Edison (SCE) overhead electric lines that traverse the western portion of the site will be located underground. In the event that the overhead electric lines cannot be located underground, an alternative plan accommodating the lines above ground, as shown in Chapter 3, *Project Description*, in Figure 3-3A, *Alternative (Overhead Electric Lines) Development Plan*, is proposed for the project site. The alternative plan for Spring Trails is the same as the preferred plan in every respect except for the treatment of the land beneath the aboveground electric lines and the number of residential lots. The project footprint is the same for both the preferred development plan and the alternative development plan. Both scenarios are analyzed in this section to assess their impacts to biological resources.

IMPACT 5.3-1: DEVELOPMENT OF THE PROPOSED PROJECT WOULD INVOLVE THE LOSS OR MODIFICATION OF APPROXIMATELY 265.2 ACRES OF NATURAL HABITAT AND THE WILDLIFE SPECIES THEREON. THESE ACTIVITIES COULD POTENTIALLY IMPACT SPECIAL STATUS PLANT AND ANIMAL SPECIES. IMPACTS COULD OCCUR TO CRITICAL HABITAT DESIGNATED BY THE US FISH AND WILDLIFE SERVICE. INDIRECT IMPACTS TO SENSITIVE PLANT AND ANIMAL HABITATS COULD ALSO OCCUR. [THRESHOLD B-1]

Impact Analysis: Approximately 100 to 300 Plummer's mariposa lily plants would be impacted by project development. Approximately 350 to 600 individual California black walnut trees of varying ages would be impacted by project development. Both are listed as sensitive by the CNPS. Impacts to USFWS-designated critical habitat for SBKR would also occur, as would impacts to Los Angeles pocket mouse. Potential impacts to LBV and SWF are also present.

This analysis is applicable to both the preferred development plan and the alternative (overhead electric lines) development plan.

Special Status Plant Species

No plant species listed as either threatened or endangered under the FESA or the CESA is known to occur on the project site. This finding is based on numerous focused surveys and habitat assessments conducted on the site since 1998. Since no federal- or state-listed species occurs on the site, there would be no impact to these species from project development.

Two plant species listed as sensitive by the CNPS have been documented to occur on the project site. Plummer's mariposa lily has been previously observed within unconfirmed areas of the project site during at



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least two surveys. There is suitable habitat on the site and it can be assumed that the species is present. It is not known, however, if the recorded occurrences were in an area of the site that is proposed for development.

Pursuant to CEQA thresholds of significance, potential impacts to this non-listed CNPS List 1B.2 species is not anticipated to be significant due to the relative abundance of this species on a regional scale. According to the CNPS listing guidelines, this species is known from 21 to 80 occurrences throughout its range, interpreted as anywhere between 3,000 to 10,000 individuals, or 10,000 to 50,000 occupied acres. The proposed project would result in the removal of an estimated 100 to 300 individuals. This represents a small portion of the total known population and any impacts would not jeopardize the existence of this species or elevate its sensitivity or listing status under the CNPS, CNDDDB, global and state heritage rankings, the FESA, or CESA.

Despite the fact that Plummer's mariposa lily is not specifically protected under state law, mitigation imposed during the Section 1602 permitting process would likely be required at some level for this species. For this reason, mitigation is recommended to identify specimens that are located within the project impact area. These specimens should be avoided or relocated as feasible. Adherence to these requirements would lessen the project's impact in this regard to less than significant levels.

California black walnut is also present on the site. Pursuant to the CEQA thresholds of significance, potential impacts to this nonlisted CNPS List 4.2 species are not anticipated to be significant due to the relative abundance of this species on a regional scale. According to the CNPS listing guidelines, this species is known from at least 21 to 80 occurrences throughout its range, which is interpreted as anywhere between 3,000 to 10,000 individuals that are known, or 10,000 to 50,000 occupied acres. The proposed project would result in the removal of approximately 350 to 600 individuals of varying ages. This represents a small portion of the total known population. These impacts would not jeopardize the existence of this species or elevate its sensitivity or status under the CNPS, CNDDDB global and state heritage rankings, the FESA, or CESA.

While California black walnut is not specifically protected under state law, mitigation initiated during the Section 1602 permitting process would likely be required at some level for this species. For this reason, it is recommended that mitigation be required to salvage and relocate healthy specimens, and/or to plant new specimens within areas to be preserved onsite. Further discussion relating to tree resources is provided under the analysis for Impact 5.3-5. Applicable mitigation for tree resources is provided as mitigation measure 3-15. Adherence to these requirements would lessen the project's impact in this regard to less than significant levels.

Special Status Wildlife Species

Mammals

Numerous small mammal trapping sessions have been conducted on the project site over the last 11 years, but none of the survey efforts have revealed the presence of any federal- or state-listed small mammal species. Even though portions of the site are within designated critical habitat for SBKR, it would appear that the species is absent from the site. This is likely due to the separation of the site from existing SBKR populations by the I-215 freeway, other roadways, a railroad, and residential and commercial development. The RAFSS habitat on the site is suitable for SBKR, but apparently, there is no effective linkage with adjacent populations. Regardless, since portions of the site are within designated critical habitat for the species, consultation with the USFWS under Section 7 of FESA would be required. Mitigation requirements derived from this consultation would serve to lessen the project's potential impacts to SBKR.

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In anticipation of those agency requirements, mitigation is recommended in this EIR to reduce the project's impacts in this regard to less than significant levels (see Section 5.3.7). The mitigation requires the adoption of BMPs to avoid direct and indirect impacts to remaining habitat areas, and also imposes specific design requirements to lessen additional impacts to offsite areas and to provide for the continued movement of animals through the area. The mitigation also requires the purchase of offsite mitigation lands and/or the payment of in-lieu fees. Finally, the mitigation also requires that the applicant demonstrate that suitable mitigation lands have been identified and are available for acquisition.

Mitigation ratios for offsite habitat purchases are typically based on a number of factors, including the quality of the habitat to be replaced and whether or not the impacted area is actually occupied by the species in question. For areas of high quality habitat that is determined to be occupied by a listed species, replacement ratios are typically established at 3:1 (three acres replaced for every one acre impacted). Unoccupied critical habitat or areas of lesser habitat quality are typically mitigated at a lower ratio. In the case of this project, the onsite RAFSS habitat that would support SBKR is of good quality but has been determined through repeated survey efforts to not be occupied by SBKR. Any mitigation required should consider each of these factors and any replacement ratios or onsite mitigation requirements adjusted accordingly.

For the reasons cited above, the prescribed mitigation for the loss of unoccupied SBKR critical habitat for this project is set at a ratio 1:1 (one acre replaced for every one acre impacted). The mitigation also requires that the applicant demonstrate that suitable mitigation lands have been identified and are available for acquisition, either through direct purchase or the payment of fees. The project applicant has identified several hundred acres of potential mitigation lands containing suitable RAFSS habitat along the alluvial fans of the San Bernardino and San Gabriel Mountains. These lands are available for purchase and dedication to an appropriate conservation management organization. This dedication and management would ensure the long-term conservation status of this sensitive habitat type in the San Bernardino Valley. It can therefore be concluded that the prescribed mitigation is feasible and would thus mitigate the project's impacts in this regard to less than significant levels.

Two SSCs are known to occur on the project site. Both San Diego pocket mouse and Los Angeles pocket mouse have been captured during each of the survey efforts on the site. Potential impacts to San Diego pocket mouse are not typically considered significant under CEQA because this species is widespread and abundant on a local and regional level. Impacts to Los Angeles pocket mouse, however, could be considered potentially significant since the preferred habitat of the species is narrow and the species is not known to be locally or regionally abundant. The status of SSC, however, does not afford any specific legal protections and therefore the impact can be considered less than significant. Nevertheless, the potential adverse impact to Los Angeles pocket mouse could be of concern to regulatory agencies such as CDFG. It is likely that CDFG would impose some level of mitigation during the Section 1602 permitting process to account for this impact. Since Los Angeles pocket mouse generally occurs in the same area as the SBKR's designated critical habitat, mitigation required by the USFWS during the Section 7 process and as discussed in the paragraphs above would serve as mitigation for Los Angeles pocket mouse as well. For that reason, mitigation specific to Los Angeles pocket mouse is not recommended. Rather, it is recommended that the same mitigation for SBKR be implemented for impacts to Los Angeles pocket mouse. Implementation of these measures would lessen the project's impact to both SBKR and Los Angeles pocket mouse to less than significant levels.

Birds

Based on repeated negative findings for CAGN during numerous survey efforts, as well as the site's recent exclusion from designated critical habitat, it is reasonable to assume that the species does not occur upon the project site.



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The riparian areas within Cable Creek provide suitable habitat for the SWF, though focused surveys conducted in 2007 returned negative findings. However, the same survey effort did detect the presence of LBV in an offsite riparian area of Cable Creek west of the site. It is therefore possible that the species could be present farther east of this location within Cable Creek. Direct development of the riparian areas of Cable Creek is not proposed as part of the project's development. No homes or other structures would be located within the riparian areas that would be most likely to contain LBV and SWF. However, the hiking/equestrian trail that is planned for this area could impact these species if they are present and if the trail is not designed thoughtfully with the aim of avoiding impacts to these species. For that reason, mitigation is recommended to assure that the trail's design, construction, and use would not impact the creek bottom in a manner that could create a significant impact to these species. Implementation of this measure would reduce the level of this potentially significant impact to less than significant levels. The prescribed mitigation is discussed further in Section 5.3.7 of this EIR.

Reptiles and Amphibians

No federal- or state-listed reptile species has ever been observed on the project site, and none is expected to occur. In regard to amphibians, habitat assessments conducted over the last 11 years have concluded that marginally suitable habitat for arroyo southwestern toad and mountain yellow-legged frog is present along Cable Creek. Neither of these species, however, has been detected during both general habitat assessment surveys or focused surveys conducted in the area. Based on these findings, it is likely that neither species is present on the project site. Regardless, and as noted above in the discussion on special status bird species, direct development of the riparian stretches of Cable Creek is not proposed as part of the project's development. The mitigation required for the proposed hiking/equestrian trail discussed in the above section would also lessen the project's potential impacts in this regard to less than significant levels. The prescribed mitigation is discussed further in Section 5.3.7 of this EIR.

Indirect Impacts to Special Status Species

Human-Wildlife Conflicts and Domestic Animal Impacts

Since the project site would be surrounded on three sides by existing wild areas that are known to provide suitable habitat for a number of animal species, it can be assumed that wild animals would continue to be present in these adjacent wild areas following project development. These animals would come into contact with the proposed development at the wildland-urban interface (WUI) and in surrounding areas. They can be drawn into developed areas by attractants such as trash containers, water, or other resources. In some instances, human residents can deliberately attract wild animals by feeding or otherwise encouraging animals to come into the neighborhood. Predatory species like black bear, mountain lions, bobcats, and coyotes can become dangerous if they become habituated to humans. They can also prey on domestic animals. When wild animals become a nuisance or potentially dangerous, CDFG is responsible for responding to these conflicts between wild animals and humans in the WUI, creating additional expense and staffing requirements for the agency.

The introduction of domestic animals would also potentially impact sensitive wildlife species in the area, as well as more common wildlife species. Domestic cats, for instance, are particularly adept at preying on wild animals such as birds, small mammals, and reptiles. Domestic cats tend to be several times as abundant in WUI areas as all other mid-sized wild predators combined, including bobcats and foxes. Cats are especially hard on bird populations. Due to a combination of their opportunistic predatory behavior and their occurrence in numbers that are substantially higher than native predators, cats can eliminate bird populations from otherwise suitable habitat. In some contexts, cat predation may supersede habitat loss as a primary threat to birds' survival. Other domestic animals, such as unrestrained dogs, can harass wildlife and

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can thus deny wild animals from using otherwise suitable habitat. Without implementation of mitigation measures, these impacts can be potentially significant.

IMPACT 5.3-2: DEVELOPMENT OF THE PROPOSED PROJECT WOULD RESULT IN IMPACTS TO SIX RIPARIAN PLANT COMMUNITIES TOTALING 26.4 ACRES. ALSO, 168.4 ACRES OF RIVERSIDEAN SAGE SCRUB, A SENSITIVE NON-RIPARIAN PLANT COMMUNITY, WOULD BE IMPACTED. PORTIONS OF THE SITE WITHIN USFWS-DESIGNATED CRITICAL HABITAT FOR SAN BERNARDINO KANGAROO RAT WOULD BE IMPACTED. [THRESHOLD B-2]

Impact Analysis: The proposed project would result in impacts to Riversidean Sage Scrub (RSS) and six riparian plant communities. The project could also have indirect impacts on surrounding undeveloped lands. Portions of the site are located within USFWS-designated critical habitat for the San Bernardino kangaroo rat (discussed above under Impact 5.3-1).

This analysis is applicable to both the preferred development plan and the alternative (overhead electric lines) development plan.

Special Status Plant Communities

The seven riparian plant communities found on the project site are considered sensitive plant communities by CDFG, USFWS, and CNPS. Six of these communities would be impacted by the proposed project. In addition, the RSS found on the site is considered a sensitive plant community even though it is not a riparian community. Table 5.3-5 lists each of these communities and how many acres of each community would be impacted by the proposed project.



**Table 5.3-5
Sensitive Plant Communities on the Spring Trails Project Site**

Plant Community	Area Impacted by Project Development (acres)
California Walnut Woodland (CWW)	1.0
Riversidean Alluvial Fan Sage Scrub (RAFSS)	4.4
Riversidean Sage Scrub (RSS)	168.4
Riversidean Sage Scrub/California Walnut Woodland (RSS/CWW)	12.0
Southern Sycamore-Alder Riparian Woodland (SSARW)	0.0 (none within project footprint)
Southern Willow Scrub (SWS)	1.0
Southern Willow Scrub/California Walnut Woodland (SWS/CWW)	6.0
Sycamore Alluvial Woodland (SAW)	2.0

Riversidean Sage Scrub

The proposed project would remove nearly all of the 168.4 acres of the RSS located on the site. CDFG regards RSS as a sensitive community. Therefore, the loss of 168.4 acres of RSS would be a significant impact.

If the project site contained listed species that were dependent upon RSS for their continued viability, then the RSS on the site could be considered of high value and the mitigation required would therefore be greater.

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However, no listed species dependent upon RSS have been detected on the site. This conclusion is based on over 11 years of general habitat assessment work and numerous focused surveys. While a number of California Species of Special Concern (SSC) have been observed within the RSS areas of the site, these species are not afforded specific legal protection as are formally listed species. Further, RSS remains relatively abundant throughout San Bernardino and Riverside Counties, with many thousands of acres still remaining. Any mitigation required should consider each of these factors and any replacement ratios or onsite mitigation requirements adjusted accordingly.

The mitigation provided in Section 5.3.7 of this EIR provides for the purchase of offsite mitigation lands and/or the payment of in lieu fees to appropriately offset the project's impact to RSS. For the reasons cited above, the prescribed mitigation for RSS for this project is set at a ratio 1:3 (one acre replaced for every three acres impacted). The mitigation also requires that the applicant demonstrate that suitable mitigation lands have been identified and are available for acquisition, either through direct purchase or the payment of fees. The project applicant has identified several hundred acres of potential mitigation lands containing suitable RSS habitat along the alluvial fans of the San Bernardino and San Gabriel Mountains. These lands are available for purchase and dedication to an appropriate conservation management organization. This dedication and management would ensure the long-term conservation status of this sensitive habitat type in the San Bernardino Valley. It can therefore be concluded that the prescribed mitigation is feasible and would thus mitigate the project's impacts in this regard to less than significant levels.

Riparian Plant Communities

Seven riparian plant communities are present on the site and six of these would be impacted by project development (see Table 5.3-5). The 25.4 acres of southern sycamore-alder riparian woodland (SSARW) present on the site are located along the upper reaches of Cable Creek and are outside of the project footprint. Therefore, they would not be impacted by the proposed development. Each of the remaining six communities, totaling 26.4 acres, that would be impacted by the project represent valuable habitat and are considered high priority for conservation by CDFG, USFWS, and CNPS. Loss of these communities would represent a significant impact.

Riversidean alluvial fan sage scrub is one of these riparian communities. Besides the direct impacts associated with project development, indirect impacts to offsite areas of RAFSS could also result from downstream impacts to the community from the secondary access road proposed across Cable Creek. The roadway could interrupt the stream flows and the occasional scourings that are required to maintain the long-term viability of RAFSS. If these processes are interrupted, RAFSS typically begins to convert to other community types that do not offer the same habitat characteristics. This is especially relevant since the secondary access road areas are located in USFWS-designated critical habitat for SBKR. SBKR require the fluvial conditions that are present in properly functioning RAFFS habitat, so both RAFSS and SBKR are related in the type of conditions they require for their long-term viability. Therefore, the possible indirect loss of additional RAFSS habitat would represent a further significant impact.

Based on the project's anticipated direct and indirect impacts on Corps, RWQCB, and CDFG jurisdictional areas, the project proponent would be required to acquire a number of wetland permits prior to project implementation. These permits would include a Section 404 permit from the Corps, a Section 401 permit from the RWQCB, and a Section 1602 permit from CDFG. In addition, consultation with the USFWS under Section 7 of the FESA would be required because portions of the project site are within unoccupied critical habitat for SBKR. Each of these agencies would impose mitigation measures to offset the loss of jurisdictional and habitat areas. In anticipation of these agency requirements, mitigation is recommended in this EIR to reduce the project's impacts in this regard to less than significant levels.

The prescribed mitigation is discussed further in Section 5.3.7 of this EIR and includes measures relating to the adoption of BMPs to avoid direct and indirect impacts to remaining riparian areas and project design requirements to lessen impacts to offsite areas. The mitigation also requires the purchase of offsite mitigation lands and/or the payment of in-lieu fees. The mitigation further requires that the applicant demonstrate that suitable mitigation lands have been identified and are available for acquisition, either through direct purchase or the payment of fees.

The project applicant has identified areas of potential mitigation lands containing suitable riparian habitat along the alluvial fans and foothills of the San Bernardino and San Gabriel Mountains. These lands are available for purchase and dedication to an appropriate conservation management organization. This dedication and management would ensure the long-term conservation status of these sensitive habitat types in the San Bernardino Valley. It can therefore be concluded that the prescribed mitigation is feasible and would thus mitigate the project's impacts to riparian habitats to less than significant levels.

Mitigation for impacts to RAFSS habitat has already been discussed in relationship to mitigation for unoccupied critical habitat for SBKR. Since the unoccupied SBKR habitat that would be impacted by the project is composed exclusively of RAFFS, the mitigation prescribed for unoccupied SBKR habitat would also serve to mitigate for impacts to RAFFS. It can therefore be concluded that impacts on the project site associated with RAFFS would be mitigated to less than significant levels.

Indirect Impacts to Sensitive Plant Communities and Habitat

Invasive Plant Impacts

As discussed previously, the project site represents good quality habitat and a diverse mosaic of plant communities and is unusual for its relative lack of invasive plant species. Unlike other areas along the front range of the San Bernardino Mountains, the project site has not converted to large areas of nonnative grassland. Only 12.5 acres of the project site, or about 3 percent, has converted to this community type. The areas immediately surrounding the site, particularly in the SBNF, are also relatively unaffected by type conversion.

The placement of a residential community into an area of native vegetation represents a potential impact to these surrounding natural areas. Nonnative species can be inadvertently introduced into native habitats in a number of ways, including:

- 1) The use of invasive species within the landscaping palette can provide opportunities for invasive plants to “escape” from the development and become established in areas of native vegetation. Once established, invasive species such as nonnative grasses, vines, and other species are extremely difficult to remove and can add to a loss of native plant and associated wildlife diversity. In addition, the flashy fuels associated with nonnative grasses can also contribute to increased fire danger and fire frequency, thus affecting even larger areas farther from the site.
- 2) After construction has finished, residents can unknowingly introduce invasive species by using them for landscaping purposes on their properties.
- 3) Seeds or other invasive plant parts can be inadvertently imported onto the site during construction activities. Areas are particularly susceptible to invasion by nonnative species during ground-disturbing activities, such as grading and site preparation. Seeds can be brought in inadvertently on construction equipment and through other means.



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The first of these potential impacts can be avoided or mitigated through the selection of an appropriate plant palette that does not include species identified as invasive or otherwise undesirable. A review of the proposed plant palette for the project (contained in the Fire Protection Plan in Appendix G of this EIR) and a comparison of the palette with a list of recognized invasive species maintained by the Natural Resource Conservation Service (NRCS) determined that the palette contains no federal- or state-listed invasive plants. A further review was conducted comparing the plant palette with the list contained in *Invasive Plants of California Wildlands* (Bossard et al. 2000). That review determined that one species on the palette (*Aptenia cordifolia*) is potentially invasive. However, the palette specifically prohibits the use of *Aptenia cordifolia* in areas adjacent to wildlands. Rather, planned uses for the species are restricted to interior portions of the site. Since the species spreads vegetatively rather than through seed dispersal, use of the species within interior portions of the development would pose minimal risk in regards to establishment within wildland areas. Therefore, impacts in this regard can be considered less than significant.

The second of these potential impacts can be avoided or mitigated through restrictions placed on homeowners regarding the use of known invasive plants. By restricting the use of recognized invasive species by homeowners, the inadvertent introduction of invasive species can be avoided. These restrictions are usually imposed through the use the covenants, codes, and restrictions and are regulated through a homeowner's association. Accordingly, mitigation is recommended to institute and enforce restrictions on the use of invasive plants on home sites within the development. The prescribed mitigation is discussed further in Section 5.3.7 of this EIR.

The third potential impact can be avoided or mitigated by imposing controls on activities during the construction process that could result in the transport of invasive species onto the site on vehicles and construction equipment. These measures can include the thorough washing of vehicles and equipment before they reach the site. Straw bales, erosion control products, and other potential invasive plant nexuses should be certified "weed free." A number of other requirements can also be incorporated. The prescribed mitigation is discussed further in Section 5.3.7 of this EIR. With implementation of these measures, such impacts can be rendered less than significant.

IMPACT 5.3-3: THE PROPOSED PROJECT WOULD IMPACT APPROXIMATELY 10.6 ACRES OF U.S ARMY CORPS OF ENGINEERS AND REGIONAL WATER QUALITY CONTROL BOARD JURISDICTIONAL AREAS, AND 13.3 ACRES OF CALIFORNIA DEPARTMENT OF FISH AND GAME JURISDICTIONAL AREAS. APPROXIMATELY 6.2 ACRES OF THE IDENTIFIED JURISDICTIONAL AREAS ARE IN A SEASONAL WETLAND. [THRESHOLD B-3]

Impact Analysis: The project would impact areas under the jurisdiction of the Corps, RWQCB, and CDFG. The project proponent would be required to apply for relevant regulatory permits related to such impacts.

This analysis is applicable to both the preferred development plan and the alternative (overhead electric lines) development plan.

Jurisdictional Areas and Riparian Habitats

The jurisdictional delineations prepared for the project site determined that the proposed project would impact approximately 10.6 acres of Corps/RWQCB jurisdictional areas and 13.3 acres of CDFG jurisdictional areas. Approximately 6.2 acres of the identified jurisdictional areas are in a potential seasonal wetland in the southern third of the site near the San Andreas Fault (see Figure 5.3-3). The quantities listed consider all of the identified jurisdictional areas located within the project development footprint and consider all grading and slopes proposed for development.

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The project proponent would be required to acquire a number of wetlands permits prior to project implementation. These permits would include a Section 404 permit from the Corps, a Section 401 permit from the RWQCB, and a Section 1602 permit from CDFG. Since the project would impact more than 0.5 acres of Corps jurisdictional areas, the project would be required to obtain a Section 404 Individual Permit rather than apply for clearance under the Nationwide Permit. Consultations with the USFWS under Section 7 of the ESA would also be required, as portions of the project site are within critical habitat for SBKR. Each of these agencies would impose mitigation measures to offset the loss of jurisdictional and habitat areas.

In anticipation of those agency requirements, mitigation is recommended in this EIR to reduce the project's impacts in this regard to less than significant levels. The mitigation requires the adoption of BMPs to avoid direct and indirect impacts to remaining habitat areas, and also imposes specific design requirements to lessen additional impacts to offsite areas and to provide for the continued movement of animals through the area. The mitigation also requires the purchase of offsite mitigation lands and/or the payment of in-lieu fees. Finally, the mitigation also requires that the applicant demonstrate that suitable mitigation lands have been identified and are available for acquisition.

The project applicant has identified areas of potential riparian mitigation lands containing suitable riparian habitat along the alluvial fans and foothills of the San Bernardino and San Gabriel Mountains. These lands are available for purchase and dedication to an appropriate conservation management organization. This dedication and management would ensure the long-term conservation status of these sensitive habitat types in the San Bernardino Valley. It can therefore be concluded that the prescribed mitigation is feasible and would thus mitigate the project's impacts to riparian habitats to less than significant levels.

IMPACT 5.3-4: THE PROPOSED PROJECT WOULD AFFECT WILDLIFE MOVEMENT AND WILDLIFE NURSERY SITES. RAPTOR FORAGING HABITAT AND NESTING BIRDS WOULD NOT BE AFFECTED. [THRESHOLD B-4]



Impact Analysis: The project would result in impacts to an area that is used by a number of species for nursery sites, foraging, and movement. The project site also provides habitat for nesting birds and marginally suitable habitat for foraging raptors.

This analysis is applicable to both the preferred development plan and the alternative (overhead electric lines) development plan.

Wildlife Movement Corridors

There is substantial evidence to indicate that the project site serves as a corridor for a wide variety of wildlife species. Such areas are usually considered significant when they are determined to be of regional importance or otherwise contribute to regional conservation goals.

For the purposes of this analysis, the project site can be considered to be composed of two principal parts in regard to wildlife movement. The first component is Cable Creek, which serves as an obvious corridor since it contains perennial water, adequate cover and food resources, and allows for the unimpeded movement of animals between higher and lower elevations. The riparian areas of Cable Creek are not planned for development, so the use of this corridor by wildlife would not be significantly impacted as a result of the proposed project. The exception to this is at the southern end of the site, where the outwash of Cable Creek would be crossed by the secondary access road. This roadway and associated culverts and drainage improvements could create a barrier to wildlife where currently no barrier exists. However, the roadway would be relatively narrow and can be designed in such a manner so that wildlife movement is not substantially impeded. In addition, the roadway would be constructed in USFWS-designated critical habitat for SBKR. As

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part of the consultation process, USFWS would impose mitigation aimed at reducing the impact of the roadway on SBKR. These requirements would likely result in a positive benefit for other wildlife species as well. Therefore, mitigation required as part of this process would likely reduce the project's impact to wildlife movement within Cable Creek to less than significant levels.

In anticipation of these agency requirements, mitigation is recommended in this EIR to reduce the project's impacts in this regard to less than significant levels. The prescribed mitigation is discussed further in Section 5.3.7 of this EIR and includes specific design requirements aimed at allowing the unrestricted movement of wildlife within the lower portion of Cable Creek. With implementation of these measures, the project's impact in regard to the secondary access road crossing at Cable Creek would be less than significant.

The second component relating to wildlife movement deals with wildlife movement across the site in an east-to-west direction and vice-versa. While the Cable Creek corridor on the western side of the site provides movement along a relatively narrow corridor in a north-to-south direction, the project site itself provides lateral movements through a much wider area and across the base of the mountain front. Were the site to be developed without consideration for this situation then the impact could be considered significant the development would effectively create a substantial barrier to wildlife movement across a large area.

This potential impact can be mitigated by retaining and/or improving existing areas on the project site that are conducive to wildlife movement. As seen in Figure 5.3-2, the large tributary that crosses the northern third of the site provides the most effective avenue for wildlife movement across the site. This is due to the fact that the areas on both sides of the property at this point are essentially natural in composition and therefore allow animals to move across the site without having to navigate substantial human-made barriers. The tributary also affords movement into and out of Cable Creek and thus to areas both to the north and south of the site. Other portions of the project area, especially the southern two-thirds of the site, do not offer these benefits. Those areas are somewhat blocked on the west by existing development, and they do not contain streams or other features that would be attractive to wildlife in terms of movement.

Retaining and/or improving this corridor would represent the greatest benefit to wildlife in terms of lateral movement across the site. The tributary offers specific characteristics, such as cover and foraging resources, that make it especially suitable for wildlife movement. Therefore, mitigation is recommended to preserve and enhance this area to allow wildlife movement across the site to continue. The prescribed mitigation is discussed further in Section 5.3.7 of this EIR and includes specific design requirements aimed at allowing the unrestricted movement of wildlife through this corridor. With implementation of these measures, the project's impact to wildlife corridors would be less than significant.

Wildlife Nursery Sites

There is substantial evidence to indicate that the site provides habitat that is suitable for use as a wildlife nursery site. Based on a number of observations over the years, the use of the site as a nursery site by mule deer is reasonably well established. Other species may utilize the site for this purpose as well, but this has not been observed or confirmed. Regardless, development of the project site would disallow its continued use as a nursery site by mule deer.

In determining whether or not the loss of this nursery site would constitute a significant impact, the species making use of the site must be considered. If a sensitive or listed species were known to use the area as a nursery site, then the loss of the site would be more problematic than if it were used by more common species. For this site, no sensitive or listed species has been observed using the site for nursery purposes. Mule deer are the only species that have been positively confirmed to use the area for this purpose, though it

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is likely that a number of other species, such as small mammals and birds, use the site for this purpose as well. None of these species, however, is a listed or sensitive species.

Mule deer is a common species that is not regionally or locally threatened or endangered. The species occurs in great quantities throughout the region and western North America. Statewide, CDFG considers mule deer to be common and abundant. In 2008, CDFG issued 237,083 deer hunting tags statewide and an estimated 29,612 animals were harvested. In Deer Hunt Zone D14, the CDFG management zone in which the proposed project is located, CDFG and USFS consider mule deer populations to be stable or slightly declining (CDFG 2003; USFS 2006a). Both agencies attribute this gradual decline to a number of factors, but primarily to fire suppression activities that have allowed vegetation to become overly mature and dense and thus less suitable for mule deer. The ongoing drought in the region has also impacted mule deer populations, because it has dried up streams and springs that were previously considered perennial and has also decreased forage production. The large fires of 2003 and 2007, however, have improved habitat conditions in many areas and it is projected that deer populations will increase if normal rainfall returns. Fuel treatments and fuel reduction efforts in many areas have also assisted in overall habitat recovery, and these efforts remain ongoing throughout the San Bernardino Mountains (USFS 2006a).

When it compiled its latest land management plans for the four southern California national forests in 2006, the USFS designated mule deer as a Management Indicator Species (MIS). The MIS designation is not a sensitive species listing and is not an indicator that the species is imperiled. Rather, the designation is intended to assist in monitoring the results of management on the national forests. In the case of mule deer, the MIS designation is intended to determine if USFS management activities are providing for the types of habitat that the species requires. One of the principal aims of the MIS designation in this regard is to track how fuels management and/or fire suppression on the forests can affect habitat characteristics and thus the species in general. Since the USFS has as one of its goals the restoration of habitats to the more natural state, prior to the implementation of aggressive fire suppression tactics, it is likely that the overall habitat quality for mule deer in the region will increase. It is therefore reasonable to conclude that mule deer populations within the San Bernardino Mountains will be stable or perhaps even increase over the next several years (USFS 2006a).

CDFG manages mule deer through a number of means, the most well known of which is hunting. Hunting is used as a tool to control species populations and to avoid overstocking within particular areas. The proposed project site is located within CDFG Deer Hunt Zone D14, which is a zone that covers all of the San Bernardino Mountains portion of the SBNF as well as some peripheral areas. For at least the last decade, CDFG has maintained a hunt tag quota of 3,000 for Zone D14. This overall stability in CDFG's management of mule deer in the San Bernardino Mountains is consistent with the agency's determination that the mule deer population in the area is relatively stable.

Considering the overall abundance and the relative stability of mule deer populations in the area, it is reasonable to conclude that the loss of the nursery area on the project site would be unlikely to result in anything but a negligible decline in the overall population of mule deer in the region, or even in this portion of the San Bernardino Mountains. The project site is surrounded on three sides by the SBNF, which provides substantial open space opportunities for use as alternative nursery sites by mule deer. In addition, the project would continue to maintain Cable Creek as an undisturbed perennial water source and wildlife corridor. Since a lack of perennial water is a major limiting factor in the maintenance of mule deer populations, the conservation of this watercourse would provide a substantial benefit to mule deer. Accordingly, the loss of this nursery site for mule deer would be less than significant. However, to avoid direct impacts to mule deer during the fawning season, mitigation is recommended to lessen the potential for impacts to during initial grubbing and vegetation clearing. The prescribed mitigation is discussed further in Section 5.3.7 of this EIR



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and includes specific requirements for scheduling vegetation clearing outside of the mule deer fawning season.

Nesting Birds

The site provides suitable habitat for a wide variety of nesting bird species. In accordance with applicable laws, it is unlawful to take, possess, or needlessly destroy any bird or prey or the nests or eggs of any bird species. Disturbance of any active bird nest during the breeding season, including active owl burrows, is prohibited by law. Breeding season typically runs from mid-February through late August. Ideally, ground-disturbing activities should take place outside of the breeding season, and doing so would reduce the project's impact to nesting birds to less than significant levels. If this is not possible and it is necessary to conduct ground-disturbing activities during the breeding season, then appropriate preconstruction surveys should be initiated to determine the presence or absence of nesting birds prior to construction. Compliance with this requirement would reduce the project's impact to less than significant.

Raptor Foraging Habitat

The project site lacks expansive grassland habitat and is for the most part dominated by dense Riversidean sage scrub and chaparral. These habitats do not provide particularly favorable conditions for foraging raptors due to the lack of prey visibility. It can therefore be concluded that the site provides only marginally suitable foraging habitat for raptors and that these species would be more likely to rely on other areas for the majority of their foraging. Accordingly, the project would not result in a significant impact to raptor foraging habitat.

IMPACT 5.3-5: THE PROPOSED PROJECT WOULD BE REQUIRED TO COMPLY WITH THE CITY OF SAN BERNARDINO TREE ORDINANCE, AND BE CONSISTENT WITH APPLICABLE POLICIES OF THE CITY OF SAN BERNARDINO GENERAL PLAN. [THRESHOLDS B-5 AND B-6]

Impact Analysis: The City of San Bernardino has adopted a tree ordinance that regulates the removal and replacement of native and nonnative trees that are impacted by development. City General Plan policies and goals would also apply to the site.

This analysis is applicable to both the preferred development plan and the alternative (overhead electric lines) development plan.

Tree Resources

The arborist reports prepared for the project site (IUF 1998; MBA 2007) determined that development of the proposed project would result in the removal of approximately 2,400 trees. The bulk of native trees on the site are located within and around Cable Creek or in the northern portion of the site (see Table 5.3-3) and are not within the development footprint (see Figure 5.1-1). These trees would not be impacted by the project. Of the approximately 2,400 trees within the development footprint, only about 220 of these (less than 1 percent) are native species, mostly walnut and sycamore. The majority of the trees requiring removal are part of a remnant eucalyptus plantation (approximately 2,170 trees). The remaining nonnative trees that would be removed consist of approximately 10 ornamental nonnative trees.

Eucalyptus presents a specific problem for this site in that they are nonnative and present a severe fire hazard. A great many of the trees are in poor condition and were classified as hazard trees in the arborist reports. Eucalyptus trees are extremely flammable and in many areas are considered nuisance species. The Fire Protection Plan prepared for the project (Firesafe Planning Solutions 2008) mandates that all eucalyptus

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on the site be removed. These trees were originally planted as part of a cultivated eucalyptus plantation, primarily for the purpose of fuel wood production. Since tree plantations are specifically exempted from the mitigation requirements of the City of San Bernardino Tree Ordinance, replacement of these trees is not required. While eucalyptus can provide suitable nesting locations for raptors and other birds, their marginal biological value must be weighed against the hazards they present to public safety and their ability to carry wildfire to developed areas and surrounding wildlands. Based on these considerations, the removal of the eucalyptus on the project site can be considered an overall benefit to the area and therefore a less than significant impact.

Conversely, native trees provide specific natural resource value in that they provide nesting habitat for raptors and cover and foraging habitat for other avian species, and they are important components of the natural ecosystem. The trees are also aesthetically pleasing and therefore constitute an important resource in this regard. The City's Tree Ordinance requires that "significant" trees be mitigated. In determining what constitutes a significant tree, the initial arborist report prepared for the site (IUF 1998) determined that healthy, structurally sound, native and ornamental trees over 20 feet in height be considered significant. Approximately 220 trees on the site met these criteria during the 1998 tree inventory. Thus the removal of these trees during project development would be considered a potentially significant impact and thus subject to the mitigation requirements of the City's Tree Ordinance.

Mitigation to this effect is presented in Section 5.3.7 of this EIR. Since the initial inventory of trees on the site is a over 12 years old and the exact count of significant trees may have changed, mitigation is provided to require an updated inventory of tree resources within the project footprint. The mitigation requires that specific management recommendations contained in the arborist reports be implemented. These recommendations include protocols for removal and relocation of native trees, tree protection during construction, and the preservation of specific trees on the project site. Performance measures are provided to mandate replacement ratios and the types and sizes of specimens required to meet the terms of the mitigation. Measures are also included to mandate improvements to tree resources in specific areas of the site. Implementation of this mitigation would comply with the City of San Bernardino Tree Ordinance and would lessen the project's impacts in this regard to less than significant levels.



City of San Bernardino General Plan

The City's General Plan provides a number of goals and policies directed toward the conservation of biological resources (see Section 5.3.2 of this EIR). The goals and policies generally center around three principal areas: 1) General conservation goals and special requirements for development within BRMAs (Goal 12.1); 2) Protection of riparian areas (Goal 12.2); and 3) The conservation of open space and other priority areas (Goal 12.3). An analysis of the project's consistency with each of these goals is discussed below.

Goal 12.1: Conservation of San Bernardino's Biological Resources

This goal contains policies that require developments to be designed in a manner that is sensitive to unique biological resources, and it also prescribes specific conditions for developments proposed within BRMAs. According to Figure NRC-2 of the General Plan, the project site is located within a BRMA. To be consistent with the General Plan, projects in BRMAs must submit biological resource assessments and other information that identifies the proposed project's impacts on sensitive biological resources. As outlined in Section 5.3.1 of this EIR, the Spring Trails project site has been the subject of numerous technical studies over the last decade. As such, the project is consistent with this requirement.

Projects within BRMAs are required to identify mitigation measures to eliminate significant adverse impacts to sensitive biological resources. As discussed later in Section 5.3.7 of this EIR, a number of mitigation

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measures have been identified for the project, and upon implementation of these measures no significant impacts remain. Therefore, the project is consistent in this regard as well.

Projects within BRMAs are required to define a plan to monitor the effectiveness of prescribed mitigation. The establishment of such a monitoring program is prescribed as mitigation for this project. The program includes requirements for annual surveys for a minimum of five years after project development, actions to be taken if certain performance measures are not met, and methods for overseeing the monitoring program. With implementation of these requirements the project is consistent with this policy of the General Plan.

Finally, the policies within Goal 12.1 require that projects consider and discuss the restoration of significant habitats. While the General Plan is not particularly clear on this issue, it appears that the intent of the policy is to provide for the restoration of habitats that have been degraded or otherwise historically altered through human activity. This policy does not particularly apply to this project since the bulk of the habitat on the site is intact and is not degraded. Regardless of the policy's intent, the project as designed and mitigated would improve specific areas of habitat within the project area. Most notably, the mitigation prescribed for wildlife corridor conservation also includes requirements to improve habitats in those areas. Improvements include the planting and maintenance of additional native vegetation to enhance wildlife foraging and movement areas. In addition, the most significant habitat on the project site, the riparian areas of Cable Creek, would be preserved and would not be impacted by the project's development. Finally, the project applicant would be required to purchase offsite mitigation lands or pay in-lieu fees for the permanent preservation of sensitive wildlife habitat within the region. Based on these considerations, it is thus reasonable to conclude that the project meets and exceeds the overall goals of the policy.

Goal 12.2: Protection of Riparian Corridors

This goal contains policies that pertain to the conservation of riparian resources. The goal also contains directives on what activities are specifically allowed to occur within riparian areas.

The plan specifies that development and grading within 50 feet of riparian corridors is prohibited unless no feasible alternative exists. In the case of the Spring Trails project, the riparian corridor of Cable Creek lies outside of the footprint of the project. In regard to the hiking and equestrian trail that is planned for this area, mitigation is prescribed in Section 5.3.7 of this EIR that imposes specific restrictions on the trail's proximity to the creek as well as other design requirements to protect riparian resources.

Two other riparian corridors on the site would be spanned by roadways. However, mitigation for these bridges and/or culverts is prescribed to minimize their impacts have on the riparian areas. Mitigation is also prescribed that requires the enhancement of the large area of riparian vegetation that crosses the northern third of the site. These enhancements would allow for the onsite conservation of this area and provide opportunities for wildlife movement within this corridor. Based on each of these mitigation requirements, together with other project design features, the project would be in compliance with all General Plan policies relating to the conservation of riparian areas.

Goal 12.3: Establishment of Open Space Corridors

This goal provides directives as to types of habitats that are considered a high priority for long-term preservation. The goal specifically calls out the City's desire to preserve the riparian corridor of Cable Creek. Since the Spring Trails project would permanently conserve the Cable Creek corridor, the project is consistent with the General Plan in this regard.

The plan also specifies other high priority habitat types, including endangered species habitat, alluvial scrub vegetation, riparian vegetation, and native walnut woodlands. The Spring Trails project would provide for the conservation of each of these resource types, either through onsite conservation and/or enhancement, or through the purchase and dedication of offsite mitigation lands. Therefore, it can be determined that the proposed project is consistent with the General Plan in this regard.

5.3.4 Cumulative Impacts

The Spring Trails project site contains a number of unique and uncommon characteristics that provide for a wide diversity of plant and animal species, especially within the onsite riparian areas. However, specific aspects of the project's design, as well as the implementation of the required mitigation measures (see Section 5.3.7, below) would successfully avoid or mitigate significant impacts to these resources. The most significant area of riparian habitat on the project site is Cable Creek, and that area is outside of the project footprint and would not be impacted by the project. Additional project design features and required mitigation would conserve and/or enhance existing onsite riparian features and wildlife corridors. Mitigation is also recommended that would require additional offsite conservation of riparian areas and other important habitats.

While continued development within the greater San Bernardino region has decreased the amount of available high quality habitat in the area, this project does not cumulatively contribute to that decrease. The most important habitat values are maintained on the site, and certain aspects of the project's design, such as the permanent preservation of Cable Creek, actually provide long-term benefits to the region in terms of long-term biological resource conservation. Based on each of these factors it can be determined that the project would not present a significant cumulative impact in regard to biological resources. This analysis of cumulative impacts to biological resources is applicable to both the preferred development plan and the alternative (overhead electric lines) development plan.



5.3.5 Existing Regulations and Standard Conditions

Federal

- Federal Endangered Species Act (Section 7)
- Clean Water Act (Sections 401 and 404)
- Migratory Bird Treaty Act

State

- California Endangered Species Act
- California Fish and Game Code Section 1600 (Streambed Alteration Permit)
- California Fish and Game Code Section 3503 (Nesting bird regulations)

City of San Bernardino

- Municipal Code Section 19.28.090 (Tree ordinance)

5.3.6 Level of Significance Before Mitigation

Without mitigation, all impacts would be potentially significant:

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- Impact 5.3-1: Development of the project would involve the loss or modification of approximately 265.2 acres of natural habitat and the wildlife species thereon, including Plummer's mariposa lily, California black walnut, San Bernardino kangaroo rat, and the Los Angeles pocket mouse. Impacts would also occur to US Fish and Wildlife Service designated critical habitat and to sensitive birds, reptiles, and amphibians that may occur around Cable Creek.
- Impact 5.3-2: Development of the proposed project would result in impacts to six riparian plant communities (totaling 26.4 acres) and non-riparian Riversidean sage scrub areas (168.4 acres). Portions of the site within US Fish and Wildlife Service-designated critical habitat for San Bernardino kangaroo rat would be impacted. Indirect impacts to sensitive plants and animals and impacts related to noxious weeds, invasive species, and human-wildlife interactions may also occur.
- Impact 5.3-3: Jurisdictional areas and natural habitats would be impacted, including 10.6 acres of US Army Corps of Engineers and Regional Water Quality Control Board jurisdictional areas and 13.3 acres of California Department of Fish and Game jurisdictional areas. Approximately 6.2 acres of the identified jurisdictional areas are in a seasonal wetland.
- Impact 5.3-4: Wildlife corridors, migratory movement, and bird nesting sites would be affected.
- Impact 5.3-5: Tree resources would be potentially impacted and the proposed project may be inconsistent with the requirements of City of San Bernardino General Plan Policy 12.1.4(b), which requires development within Biological Resource Management Areas to define a program for monitoring, evaluating the effectiveness of, and ensuring the adequacy of specified mitigation measures.

5.3.7 Mitigation Measures

Impact 5.3-1

- 3-1 Prior to the issuance of grading permits, preconstruction surveys within the proposed impact areas for Plummer's mariposa lily shall be conducted in the appropriate blooming period by a qualified biologist. The appropriate blooming period is defined as occurring within the months of April, May, and June, or as indicated by positive verification of blooming at a documented reference location. Surveys must only be conducted during a year of at least average precipitation, as determined by official precipitation records. The surveys should positively identify and quantify all individuals on or in the immediate vicinity of the proposed impact areas. Any individuals confirmed within the project impact area shall be considered for possible salvage and relocation into suitable receptor sites located onsite within preserved areas, if feasible. Any individuals confirmed in the immediate vicinity of a proposed impact area shall be flagged and appropriately fenced off from construction zones to prevent inadvertent impacts. Individuals confirmed within areas proposed for preservation onsite shall be properly recorded and avoided during any revegetation or other efforts anticipated in the long term during project operation. All observations shall be accurately reported to the California Natural Diversity Database, the California Native Plant Survey, the Consortium of California Herbarium, and/or other herbarium or sensitive species databases as determined by the qualified biologist. This measure shall be implemented to the satisfaction of the Community Development Director.
- 3-2 To mitigate for impacts to unoccupied critical habitat of the federally endangered San Bernardino kangaroo rat, the project applicant shall acquire offsite permanent mitigation lands of like habitat quality as determined by the US Fish and Wildlife Service (USFWS) during the

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Section 7 consultation process. Mitigation lands must be acquired prior to the issuance of grading permits, and shall incorporate appropriate long-term management provisions such as deed restrictions, endowments, and/or other management mechanisms to provide for the long-term conservation of the habitat. Potential properties include, but are not limited to, those managed by San Bernardino County Special Districts located in the Glen Helen, Rialto, and Rancho Cucamonga areas. Mitigation lands shall be acquired at a replacement ratio of 1:1 (one acre replaced for every one acre impacted). This measure does not preclude the imposition of additional mitigation requirements that may be initiated by the USFWS during the Section 7 consultation process. This measure shall be implemented to the satisfaction of the Community Development Director.

3-3 To mitigate for potential impacts to hydrological processes and subsequent degradation of habitat for the federally endangered San Bernardino kangaroo rat and other sensitive species, all roadway crossings or other improvements proposed within critical habitat for the species shall be designed in such a manner as to not substantially alter the natural flow regimes through impacted sensitive habitat areas. These designs shall include, but shall not necessarily be limited to, the installation of appropriate culverts and stream crossings that allow for natural flow and uninhibited downstream hydrological processes. Design of these improvements shall be undertaken in consultation with the US Fish and Wildlife Service and other responsible agencies. This measure shall be implemented to the satisfaction of the Community Development Director prior to the issuance of grading permits.

3-4 Any hiking and equestrian trails or other facilities developed within Cable Creek or other riparian areas on the site shall be designed to comply with provisions in the General Plan. These requirements shall include, but not necessarily be limited to: 1) no ground disturbance may take place within 50 feet of the ordinary high-water mark of the associated stream channel; 2) erosion, sedimentation, and runoff from the proposed improvements must be minimized by the implementation of appropriate best management practices, the installation of appropriate runoff diversions, and/or the planting of native vegetation; 3) Vegetation removal will be minimized to the maximum extent possible; and 4) appropriate signage shall be installed in at least five locations alongside these facilities to educate users as to the importance of riparian ecosystems, the species that rely upon them, and the importance of avoiding unnecessary impacts and disturbance. This measure shall be implemented to the satisfaction of the Community Development Director. [This measure also provides mitigation for Impact 5.3-4 as related to impacts to wildlife corridors. See Mitigation Measure 3-9]



3-5 The applicant shall prepare a signage and a buyer awareness program to be implemented to inform homeowners of the proximity to sensitive wildlife areas. The purpose of this program shall be to (1) prevent wildlife from being attracted to the housing development and (2) prevent household pets from preying on and harassing the local sensitive species. Materials and literature provided to the residents shall address the implications and dangers of living adjacent to natural open space areas. To prevent wildlife from being attracted to the project site, the materials shall provide information on homeowner's benefits and responsibilities associated with living close to natural wildlife habitats. Specific responsibilities of homeowners shall be described in these materials and be included in the Homeowners Association (HOA) Covenants, Codes, & Restrictions (CC&R). These measures shall include, but not necessarily be limited to, the following:

- The storage and disposal of ALL food or refuse that is edible by or attractive to wildlife shall be placed in Wildlife-Resistant Refuse Enclosures and Containers. These

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containers shall meet applicable standards of testing by the Living With Wildlife Foundation and be bear resistant for 60 minutes so long as they are able to meet the City of San Bernardino's Refuse and Recycling Division's restrictions for pick-up and onsite sizing. Examples of Wildlife-Resistant Refuse Enclosures and Containers are provided by the Living with Wildlife Foundation (<http://www.lwwf.org/>).

- The project applicant shall coordinate with the City of San Bernardino Refuse and Recycling Division to ensure all refuse facilities conform to their sizing and pick-up requirements. All refuse containers shall be designed to be consistent with the City of San Bernardino Refuse and Recycling Division restrictions.
- With the exception of birdfeeders, no person shall intentionally feed or knowingly leave or store any refuse, food product, pet food, or other product edible by wildlife on any premises in a manner which would constitute a lure, attraction, or enticement of wildlife on property within the development
 - Birdfeeders must be suspended on a cable or other device so as to be inaccessible to bears and other wildlife, and the area below the feeders must be kept free from seed debris. If a wild animal gains access to a birdfeeder, the condition allowing access must be corrected or the birdfeeder removed.
- To limit the amount of time refuse is on the curb, trash should be set out and brought back inside between specified hours on pick-up day (to be detailed in the proposed or future HOA CC&R's).

To prevent the disturbance of wildlife (and sensitive species) by domestic pets, the program shall inform residents of the impacts their pets have on local animals. Cat-owners shall be informed of measures to keep their pets within their property boundaries and dog-owners shall keep their dogs on a leash while outside (except within designated dog parks). These measures would also serve to lessen the likelihood of domestic pets being preyed upon by wild predators.

The buyer awareness materials will be included in a sales disclosure statement and in the Homeowners Association (HOA) CC&R's. A copy of the buyer awareness materials shall be approved by the Community Development Director and available to residents upon request.

Impact 5.3-2

- 3-6 To mitigate impacts to 168.4 acres of Riversidean sage scrub (RSS) and 26.4 acres of riparian plant communities, the project applicant shall do one of the following, or a combination thereof, prior to the issuance of grading permits: 1) acquire offsite permanent mitigation lands of like habitat as determined by the California Department of Fish and Game (CDFG); and/or 2) pay appropriate in-lieu fees to an appropriate permanent mitigation land bank as determined by CDFG. Mitigation lands must be acquired prior to the issuance of grading permits, and shall incorporate appropriate long-term management provisions, such as deed restrictions, endowments, and/or other management mechanisms to provide for the long-term conservation of the habitat. Potential properties include, but are not limited to, those managed by San Bernardino County Special Districts located in the Glen Helen, Rialto, and Rancho Cucamonga areas. Mitigation lands for riparian habitat shall be acquired at a replacement ratio of 1:1 (one acre replaced for every one acre impacted). Mitigation lands for RSS shall be acquired at a

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replacement ratio of 1:3 (one acre replaced for every three acres impacted). This measure shall be implemented to the satisfaction of the Community Development Director.

- 3-7 All real property sold within the development shall contain within the real estate contract appropriate Covenants, Codes, and Restrictions (CC&Rs) to require only the use of approved plants on any and all parcels within the development. Approved plants are defined as those listed in the Fire Protection Plan (Firesafe Planning Solutions 2008) and incorporated into the Spring Trails Specific Plan. All plants classified as “invasive” or “noxious” by the US Department of Agriculture Natural Resource Conservation Service (NRCS) shall be specifically prohibited from use in any part of the development, unless specifically authorized within the Fire Protection Plan or the Specific Plan. Enforcement shall be instituted through the project’s Homeowner’s Association (HOA) and specific enforcement measures shall be provided within the HOA’s charter. Enforcement measures may include, but not necessarily be limited to, the imposition of fines, liens, property-owner reimbursed removal of unauthorized plants, and/or other mechanisms. This measure must be implemented prior to the sale of the first residential lot and shall be implemented to the satisfaction of the Community Development Director.
- 3-8 Prior to the issuance of grading permits, the developer or his designee shall submit to the City a noxious weed control plan prepared by a qualified specialist that shall be implemented during construction of the project. The plan shall contain specific measures to be adopted to lessen or eliminate the inadvertent introduction of noxious weeds onto the site or surrounding areas. At a minimum, the plan shall incorporate each of the following requirements: 1) all construction equipment used on the site shall be thoroughly washed *prior* to transport to the project site; 2) cleaning and washing of equipment includes washing and/or steam cleaning of tires, undercarriages, frames, and other parts of the equipment where mud, dirt, and other debris could be located; 3) offsite cleaning areas shall be clearly identified; and 4) straw bales and other erosion control products shall be certified as “weed free”. The plan shall be reviewed by a qualified third party with expertise in the field of noxious weed control. Other control measures may be added by that specialist as deemed appropriate. Following approval of the plan, the plan shall be implemented throughout the construction phase of the project and overseen by a qualified specialist at monthly intervals. During monitoring, the specialist shall have the authority to require corrective measures to assure the success of the plan. This measure shall be implemented to the satisfaction of the Community Development Director.



Impact 5.3-3

Mitigation Measures 3-3, 3-6 and 3-11 would reduce the project’s impacts to jurisdictional areas and riparian habitats.

Impact 5.3-4

- 3-9 Implementation of Mitigation Measure 3-4 to mitigate potential impacts to sensitive species in Cable Creek shall also be applied to Impact 5.3-4.
- 3-10 With regard to the protection of nesting birds, one of the following must occur: 1) Construction should occur outside of the avian nesting season (approximately February 15 through August 31); or 2) If construction must occur during the nesting season, then a preconstruction nesting bird survey of the site shall be conducted by a qualified biologist no more than 14 days prior to construction activities. If active nests are found onsite, then they must be avoided by an appropriate buffer until any young birds have fledged and the nest has completed its cycle, as

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determined by a qualified biologist. If construction occurs outside of the avian nesting period, then construction may commence without further impediment, commensurate with other regulatory and mitigation requirements. This measure shall be implemented to the satisfaction of the Community Development Director.

- 3-11 Two known wildlife corridors are present on the project site and may be impacted by the proposed project unless mitigation is incorporated: 1) the unnamed tributary of Cable Creek that flows in an east-to-west direction in the northern third of the project site (referred to here as the Northern Corridor); and 2) the outwash of Cable Creek adjacent to the Interstate 215 freeway that is proposed to be crossed by the secondary access road (referred to here as the Southern Corridor). For these corridors, the following must occur:

Northern Corridor: 1) Native vegetation within this corridor must be restored, enhanced and maintained to the maximum extent allowed by the Fire Protection Plan; 2) riparian vegetation that provides high-quality foraging opportunities, cover, and other habitat values shall be the preferred vegetation type in this area, unless specifically prohibited by the Fire Protection Plan; 3) this area shall be the preferred location for the planting of replacement native trees as outlined in the tree replacement requirements of Mitigation Measure 3-11, unless specifically prohibited by the Fire Protection Plan; 4) the corridor shall be maintained free of fences, walls, or other obstructions; 5) any lighting associated with the project in this area, including street lights and residential lights, shall be of the minimum output required and shall be down-shielded to prevent excessive light bleed into adjacent areas; 6) any road crossings, bridges, culverts, etc., shall be constructed with soft bottoms with an openness ratio of at least 0.9 (openness ratio=height x width/length); and 7) additional recommendations as outlined in the report entitled "A Linkage Design for the San Gabriel-San Bernardino Connection" (South Coast Missing Linkages Project 2004) may be incorporated as feasible and appropriate.

Southern Corridor: 1) Any bridge, culvert, or other road crossing structure shall be designed in such a manner as to allow for the maintenance of natural flow through the structure and downstream of the structure, as conditioned by the US Fish and Wildlife Service during the Section 7 permitting process; 2) any road crossings, bridges, culverts, etc., shall be constructed with soft bottoms with an openness ratio of at least 0.9 (openness ratio=height x width/length); and 3) additional recommendations as outlined in the report entitled "A Linkage Design for the San Gabriel-San Bernardino Connection" (South Coast Missing Linkages Project 2004) may be incorporated as feasible and appropriate.

These measures shall be incorporated into site development plans and must be reviewed and approved prior to the issuance of grading permits. This measure does not preclude the requirement of additional mitigation that may be initiated by the US Fish and Wildlife Service, the US Army Corps of Engineers, the Regional Water Quality Control Board, or the California Department of Fish and Game during the regulatory permitting process. This measure shall be implemented to the satisfaction of the Community Development Director.

- 3-12 To avoid potential direct impacts to mule deer birthing and initial nursing, initial grubbing and vegetation clearing may not occur during mule deer fawning season. For purposes of this project, the mule deer fawning season is defined as March 15 through August 31. This measure shall be implemented to the satisfaction of the Community Development Director.

Impact 5.3-5

- 3-13 Significant tree resources that are removed from the site during project development shall be replaced at a 1:1 ratio or at the exchange ratios specific below. Significant tree resources are defined as any native or nonnative ornamental tree—excluding species of the *Eucalyptus* genus—that is healthy, structurally sound, and over 20 feet in height. For California black walnut (*Juglans californica* var. *californica*), all specimens of the species shall be regarded as significant, regardless of size or height. Prior to the issuance of grading permits, a certified arborist shall conduct an inventory of all significant trees within the development footprint. This inventory shall be used to determine the number and types of significant trees that will be impacted and the subsequent replacement quantities. The number of replacement trees shall be, at a minimum, 220 trees. Should the aforementioned inventory determine that a greater number of significant trees will be impacted, then that quantity shall be used in determining replacement quantities. For purposes of replacement ratios, the following exchange ratios shall be used: 1) one 36-inch box tree is equivalent to one replacement tree; 2) five 15-gallon trees are equivalent to one replacement tree; 3) 10 five-gallon trees are equivalent to one replacement tree; and 4) 15 one-gallon trees are equivalent to one replacement tree.

During the development of the project, the project applicant shall incorporate the recommendations as set forth in the project arborist report (Integrated Urban Forestry 1998). A certified arborist shall be retained at the developer's expense to oversee the implementation of these requirements and to specify other requirements as deemed appropriate. The measures to be followed include, but are not limited to, specified protocols for the following: 1) the removal of nonnative trees from the site; 2) the removal and transplantation, when feasible, of structurally sound and healthy native trees to other areas of the project site; 3) the installation of tree protection barriers on all trees to be preserved that are within the reach of vehicles and equipment; 4) tree protection training of construction personnel by a certified arborist; 5) irrigation of trees where the natural water supply is interrupted or diminished or where protected trees may require additional water to endure construction-induced stresses; 6) subsequent replacement of any trees that are damaged or have not survived transplantation and relocation; and 7) implementation of the tree replacement plan, as outlined in the first paragraph of this measure. This measure shall be implemented to the satisfaction of the Community Development Director.

- 3-14 Prior to the commencement of ground-disturbing activities, the developer shall retain the services of qualified specialists, approved by the City, to oversee the long-term effectiveness of the biological resources mitigation required in this EIR. When appropriate, the services of these specialists may be combined so long as the person(s) so employed possess the requisite training and skills necessary to effectively carry out their duties to professional standards. Those specialists shall conduct reviews of the project site for a minimum of five years, as measured from the day of beginning of initial ground disturbance. Reviews shall be conducted, as applicable, on a monthly basis for the first year following initiation, on a quarterly basis during the second and third years, and on an annual basis during the fourth and fifth years. The intensity of monitoring may be increased or the monitoring period extended if the City or relevant Responsible Agency (i.e., CDFG, USFWS, RWQCB, etc.) determines that conditions on the ground warrant such action. The qualified specialists to be retained and the nature of their duties are as follows:

Biologist: A qualified biologist shall monitor the effectiveness of Mitigation Measures 3-1, 3-2, 3-4, 3-6, 3-10, 3-11, 3-12, and 3-14.



5. Environmental Analysis

BIOLOGICAL RESOURCES

Noxious/Invasive Plant Control Specialist: A person who is qualified in the field of noxious plant management and control shall monitor the effectiveness of Mitigation Measures 3-7 and 3-8.

Arborist: A certified arborist shall monitor the effectiveness of Mitigation Measure 3-13.

Hydrologist/Stormwater Control Specialist: A qualified hydrologist and/or stormwater control specialist shall monitor the effectiveness of Mitigation Measures 3-3, 3-4, and 3-6.

Following each monitoring session, these specialists shall file brief reports with the Community Development Director concerning the effectiveness of the prescribed mitigation. The specialist shall identify and call out any corrective actions required to assure that the purposes of the mitigation are being effectively pursued. The developer shall comply with any corrective measures so prescribed. Monitoring may cease if the qualified specialist determines that the terms of the mitigation have been satisfactorily implemented and that further monitoring is no longer required. This measure shall be implemented to the satisfaction of the Community Development Director.

5.3.8 Level of Significance After Mitigation

The mitigation measures presented above would successfully mitigate the following impacts to levels that are less than significant: Impact 5.3-1, Impact 5.3-2, Impact 5.3-3, Impact 5.3-4, and Impact 5.3-5.