

4.4 Biological Resources

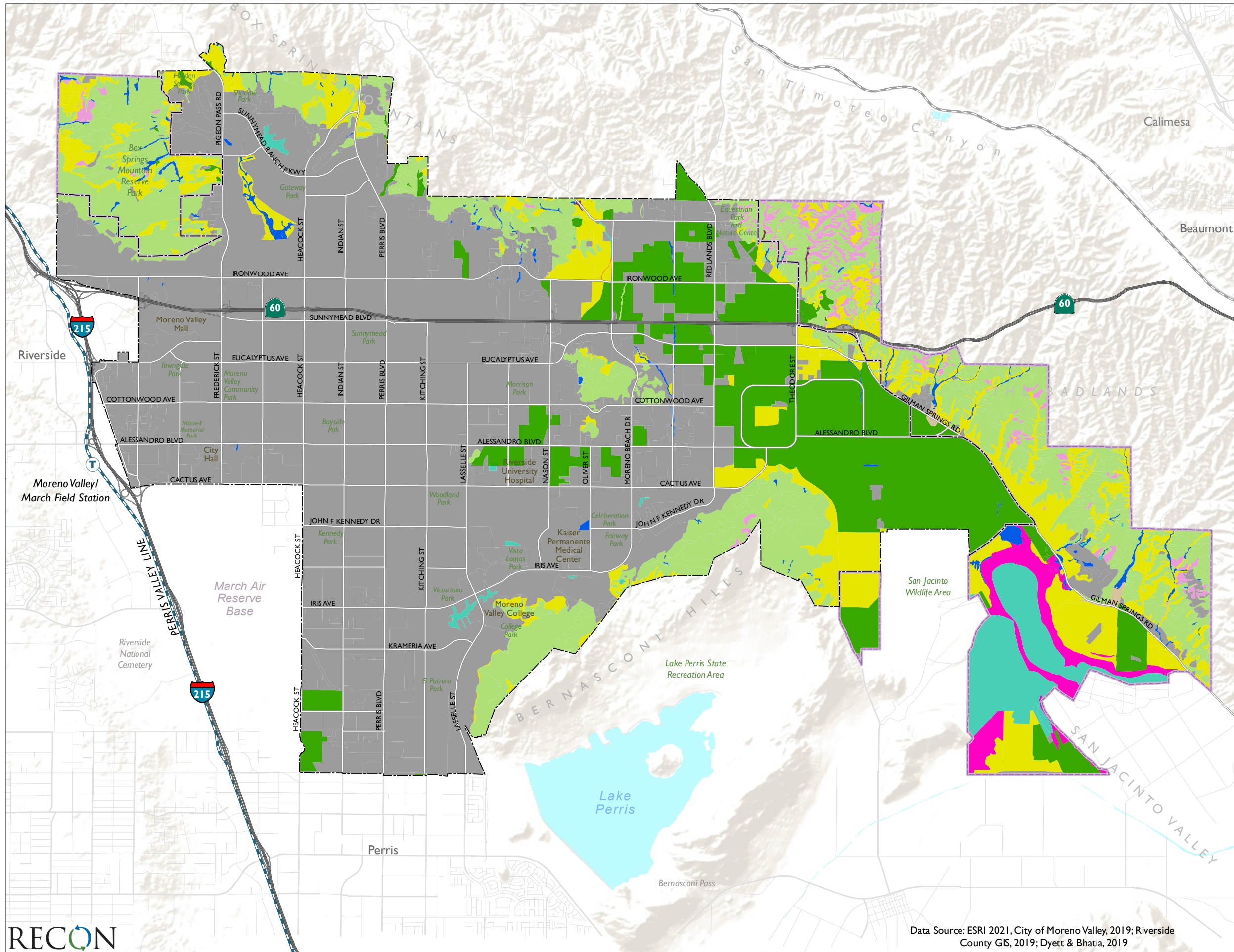
This section analyzes potentially significant impacts related to biological resources that could result from implementation of the project, which consists of the 2021 General Plan Update (GPU), Housing Element Update, and Climate Action Plan (CAP). The analysis area covers the entire city of Moreno Valley (city) and sphere of influence (SOI), which are collectively referred to as the Planning Area. Within the analysis, Concept Areas refers to those areas where the GPU proposes land use changes as shown on Figure 3-1. This analysis relies on secondary source information, existing biological resources databases and literature, and vegetation data available from the Western Riverside County Regional Conservation Authority.

4.4.1 Existing Conditions

Undeveloped lands within the city are typically comprised of disturbed lands and non-native grasses due to the prior history of cultivation. Small pockets of riparian vegetation occur within urban canyons and native habitats and species that once inhabited the area are largely limited to areas around the city fringes where lands are in proximity to surrounding conserved natural areas. A number of nearby natural areas occur adjacent to the city, including the San Jacinto Wildlife Area.

4.4.1.1 Vegetation Communities

Vegetation communities and land cover types within the city are shown in Figure 4.4-1. The acreage of each of these vegetation communities and land cover types is presented in Table 4.4-1. As shown in Figure 4.4-1, the majority of land within the city consists of Developed/Disturbed Land. Natural vegetation is primarily located in the eastern portion of the city, as well as along the southeastern and northern boundaries of the city. Vegetation communities/land cover types are described further below.



- City of Moreno Valley
- Sphere of Influence
- Vegetation Communities 2012**
- Agricultural Land
- Chaparral
- Coastal Sage Scrub
- Desert Scrub
- Developed/Disturbed Land
- Grassland
- Meadows and Marshes
- Playas and Vernal Pools
- Riparian Scrub, Woodland, Forest
- Riversidean Alluvial Fan Sage Scrub
- Water
- Woodland and Forests

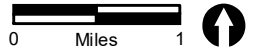


FIGURE 4.4-1
Vegetation Communities

Data Source: ESRI 2021, City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019

Vegetation Communities and Land Cover Types	Sum of Acres
Agricultural Land	5,018.35
Cropland, Orchard - Vineyard	4,988.77
Eucalyptus	29.58
Chaparral	44.82
Mixed Chaparral	44.82
Coastal Sage Scrub	3,286.27
Coastal Scrub	3,286.27
Desert Scrub	6.44
Alkali Desert Scrub	6.44
Developed/Disturbed Land	22,814.60
Urban	22,814.60
Grassland	1,678.02
Annual Grassland	1,678.02
Meadows and Marshes	2.08
Fresh Emergent Wetland	2.08
Playas and Vernal Pools	0.16
Wet Meadow	0.16
Riparian Scrub, Woodland, Forest	134.48
Fresh Emergent Wetland	61.11
Valley Foothill Riparian	73.37
Riversidean Alluvial Fan Sage Scrub	3.82
Coastal Scrub	3.82
Water	86.83
Lacustrine	81.49
Riverine, Lacustrine	5.34
Woodland and Forests	1.20
Coastal Oak Woodland	1.20
Grand Total	33,077.06

SOURCE: Western Riverside County Regional Conservation Authority (WRCRCA) 2003.

a. Agricultural Land

Agriculture refers to lands subject to routine and ongoing commercial operations associated with orchards and vineyards, intensively developed agriculture, such as dairies, nurseries, and chicken ranches, and extensive agriculture such as field pastures and row crops. Well-managed, modern agricultural areas used for commercial row crops, orchards, and vineyards can be devoid of wildlife. However, fields and pastures can provide habitat for native small mammals and foraging habitat for raptors such as northern harrier (*Circus cyaneus*) and red-tailed hawk (*Buteo jamaicensis*). White-faced ibis (*Plegadis chihi*), egret (*Ardea* spp.), crow (*Corvus* spp.), and killdeer (*Charadrius vociferus*) often use fallow or active fields. Agricultural areas are primarily within the eastern portion of the Planning Area with some scattered areas within the central and southern parts of the city.

b. Chaparral

Chaparral is a vegetation community typically dominated by broad-leaved sclerophyllous shrubs or small trees, and characteristically occupies protected north-facing and canyon slopes or ravines where more mesic conditions are present. Dominant shrubs in this

community are typically five to ten feet tall and may include chamise (*Adenostoma fasciculatum*), manzanita (*Arcostaphylos* spp.), toyon (*Heteromeles arbutifolia*), ceanothus (*Ceanothus* spp.), mission manzanita (*Xylococcus bicolor*), and sugar bush (*Rhus ovata*) (Holland 1986). The vegetation is usually dense, with little or no understory cover, but may include patches of bare soil. Many species in this community are adapted to repeated fires by their ability to stump sprout. Chaparral typically is found in small pockets of habitat within conserved portions of the northern and southern portions of the Planning Area, and throughout the sphere of influence (SOI) and San Jacinto Wildlife Area.

c. Coastal Sage Scrub

Coastal sage scrub is a vegetation community consisting of low-growing, aromatic, drought-deciduous soft-woody shrubs that have an average height of approximately three to four feet. This plant community is typically dominated by facultatively drought deciduous species such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), California encelia (*Encelia californica*), and black sage (*Salvia mellifera*) (Holland 1986). The community typically is found on low moisture-availability sites with steep, xeric slopes or clay rich soils that are slow to release stored water. These sites often include drier south- and west-facing slopes and occasionally north-facing slopes, where the community can act as a successional phase of chaparral development. Coastal sage scrub intergrades at higher elevations with several types of chaparrals, or in drier more inland areas with Riversidean sage scrub. Coastal sage scrub is found in the northern, central, and southeastern areas of the Planning Area, largely within the Box Springs Mountain Reserve Park, the Lake Perris State Recreational Area, the Badlands, and areas designated for Hillside Residential in the northern portion of the Planning Area.

d. Desert Scrub

Desert scrub is generally dominated by creosote bush (*Larrea tridentata*), burro bush (*Ambrosia dumosa*), brittlebush (*Encelia farinosa*), and ocotillo (*Fouquieria splendens*), which grow from 0.5 to three meters high. The shrubs within this vegetation community are generally widely spaced, usually interspersed with bare ground (Holland 1986). Desert scrub occurs within the Planning Area in small pockets of habitat along the eastern perimeter and extends into the SOI.

e. Developed/Disturbed Land

Developed/disturbed land is composed of areas consisting of business lots, roadways, and development throughout Planning Area. Non-native trees and other horticultural species used in development landscaping provide shade for the open areas and buildings. Developed/disturbed land is the dominant land cover type and found primarily throughout Moreno Valley.

f. Grassland

Grassland is a vegetation community characterized by a dense to sparse cover of annual grasses reaching to three feet high, which may include numerous native wildflowers, particularly in years of high rainfall. Grasslands contain species including, but not limited to, bromes (*Bromus* spp.), wild oat (*Avena* spp.), ryegrass (*Lolium* spp.), and fescues (*Vulpia* spp.) (Holland 1986). Typically, grasslands include at least 50 percent cover of the entire herbaceous layer attributable to annual non-native grass species, although other plant species (native and non-native) may be intermixed. These annuals germinate with the onset of the rainy season and set seeds in the late winter or spring. This vegetation community is usually found on fine-textured, usually clay soils, that range from being moist or waterlogged in the winter to being very dry during the summer and fall (Holland 1986). Grassland is found within the northern, southern, and eastern portions of Moreno Valley and throughout the SOI.

g. Meadows and Marshes

Meadows and marshes are fresh emergent wetland communities comprised of perennial emergent monocots typically forming a closed canopy. These communities consist of perennial emergent plants such as cattails (*Typha* spp.) and bulrush (*Scirpus* spp.) and can be found in the form of freshwater marsh (Holland 1986). Freshwater marsh vegetation occurs in open bodies of fresh water with little current flow, such as ponds, and to a lesser extent around seeps and springs. Freshwater marshes occur in areas of permanent inundation by freshwater without active streamflow. Approximately two acres of meadows and marshes exist north of State Route 60 (SR-60) in the northern portion of the Planning Area.

h. Playas and Vernal Pools

Vernal pools are shallow, isolated, ephemeral wetlands typically located on flat-topped mesas. The microrelief surrounding vernal pools typically consist of small mima mounds or hummocks and intergrade with alkali playa and alkali grassland habitats. These vegetation communities have a characteristic suite of plant and animal species. Plants within these habitats may be aquatic or may germinate following the drying of the pool. Vernal pool and playa sizes range from very small to large (42 acres and 6,081 acres, respectively within the Planning Area) (WRCRCA 2003). Vernal pools are considered to be basins which pond yearly and alkaline vernal playas are larger areas such as shallow lakes that may only support seasonal flooding and ponding on a less reliable basis, but which possess characteristic soils and vegetation developed in response to periodic flooding and low soil permeabilities. Playas and vernal pools occur around Mystic Lake and other bodies of water southeast of the Planning Area.

i. Riparian Scrub, Woodland, Forest

Riparian scrub, riparian woodland, and riparian forest are dense riparian communities dominated by broad-leaved, winter deciduous trees. The density of the willows often prevents a dense understory of smaller plants from growing. The representative species typically grow

in loose, sandy, or fine gravelly alluvium deposited near stream channels during flood flows. Repeated flooding prevents succession to a community dominated by western sycamore (*Platanus racemose*) and cottonwoods (*Populus* sp.) (Holland 1986). A majority of the riparian scrub, woodland, and forest are located within conserved or public lands such as the Box Springs Mountain Preserve, Poorman Reservoir in the northwest of the Planning Area, and within the Badlands area within the city SOI. Isolated riparian areas exist in other limited undeveloped portions of the city.

j. Riversidean Alluvial Fan Sage Scrub

Riversidean alluvial fan sage scrub is an inland (xeric) form of coastal sage scrub that occurs in washes and on gently sloping alluvial fans. This vegetation community is composed of low-growing, aromatic, drought-deciduous, soft-woody shrubs that have an average height of approximately three to four feet (Holland 1986). These areas flood only occasionally (every five to ten years); therefore, many upland species become established in the streamside habitat. The occasional flooding and sediment reworking; however, is the driving force that maintains this vegetation type and is described as open vegetation adapted to alluvial fans and outwashes. It is dominated by scalebroom (*Lepidospartum squamatum*), which is primarily restricted to floodplain habitats. Other characteristic species for this vegetation community include California buckwheat, white sage (*Salvia apiana*), Tecate tarplant (*Deinandra floribunda*), as well as riparian species such as western sycamore and mule fat (*Baccharis salicifolia*). Less than four acres of this vegetation community is mapped along the northern perimeter of the Planning Area.

k. Water

Open water occurs in several places within the Planning Area. The largest area is mapped as the Mystic Lake, southeast of the Planning Area within the SOI.

l. Woodlands and Forests

Woodlands and forests within the Planning Area are represented as coastal oak woodland, a vegetation community defined as having one primary tree, coast live oak (*Quercus agrifolia*) (Holland 1986). Coastal oak woodlands are present in the coastal slopes of southern California and are typically found on north-facing slopes and shaded ravines in the south and more exposed sites in the north. Less than two acres of this vegetation community occurs in two small patches along the northern perimeter of the Planning Area.

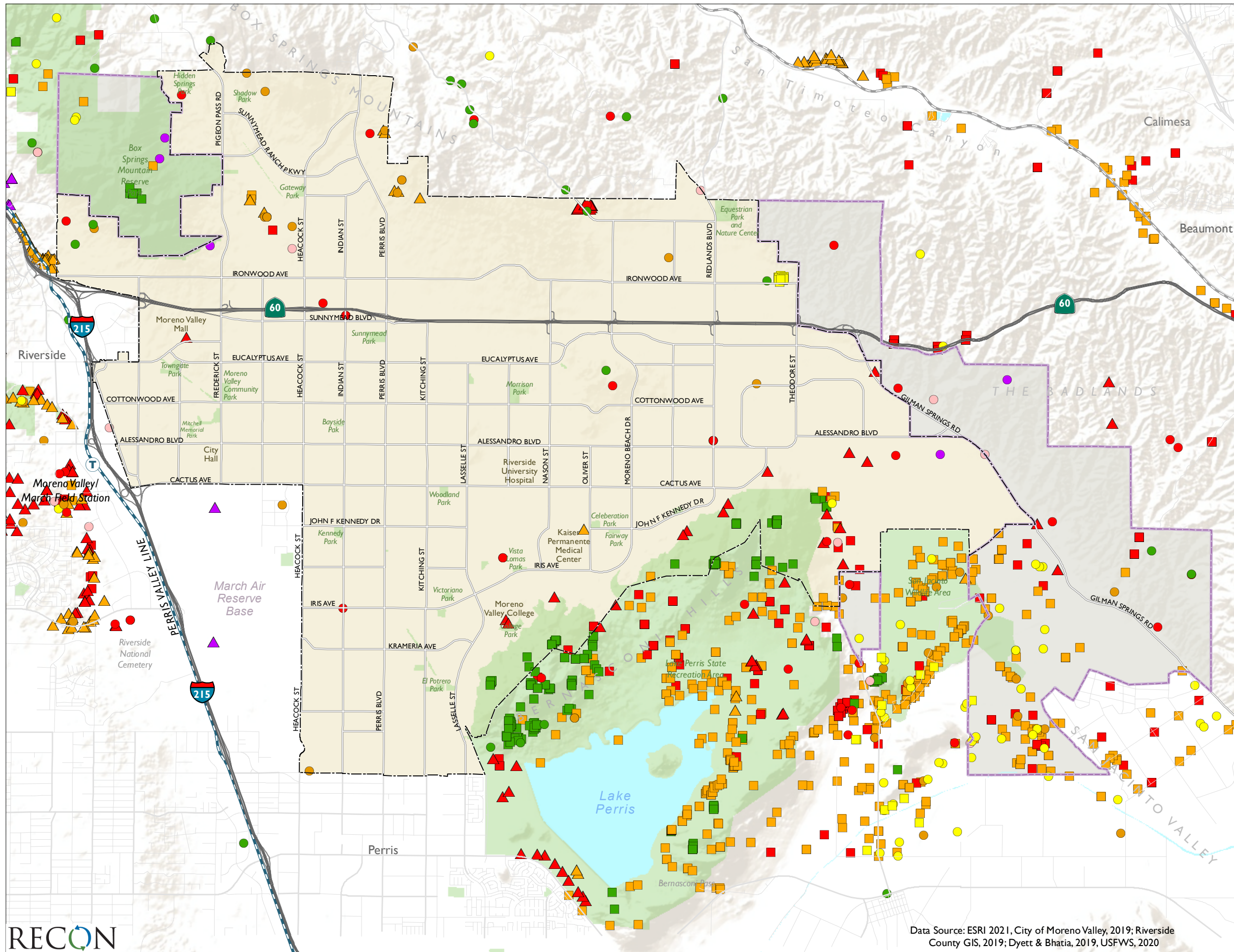
4.4.1.2 Western Riverside County Multiple Species Habitat Conservation Plan

a. Sensitive Plants

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive multi-jurisdictional habitat conservation plan focusing on the conservation of species and their associated habitats. The MSHCP provides coverage (including take

authorization for listed species) for special-status plant and wildlife species, as well as mitigation for impacts to sensitive species. Through agreements with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW), the MSHCP designates 146 special-status wildlife and plant species that receive some level of coverage under the plan. Of that total, the majority of these species have no additional survey/conservation requirements and 16 plant species are classified as “narrow endemic species” based on their limited distributions in the region. These narrow endemics are sensitive biological resources; some are also federally or state listed as threatened or endangered. The habitat that supports a narrow endemic species is also considered a sensitive biological resource. Species with potential to occur include plant and wildlife species that occur within habitats or soils conditions that are also present within the city.

A review of the species records from California Natural Diversity Database (CNDDDB) reported within a one-mile buffer was conducted in order to help identify sensitive plant and wildlife species that may potentially occur within the Planning Area. Known locations of sensitive plants within the city are presented in Figure 4.4-2 and summarized in Table 4.4-2. Known sensitive plants within the city are limited to the MSHCP-covered species, southern California black walnut (*Juglans californica*) in the northeastern portion of the city and smooth tarplant (*Centromadia pungens* ssp. *laevis*), within the eastern corner. There is currently no record of any plant species with a federal or state status as endangered, threatened, or rare within the city.



- City of Moreno Valley
- Sphere of Influence
- MSHCP Species**
 - Birds
 - Reptiles
 - Mammals
 - Rare Plants
- USFWS Species Observations**
 - Birds
 - Mammals
 - Invertebrates
- CNDDDB Species Observations**
 - Birds
 - Reptiles
 - Amphibians
 - Invertebrates
 - Mammals
 - Plants

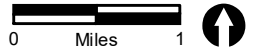


FIGURE 4.4-2
MSHCP Covered Species, CNDDDB and USFWS Species

Data Source: ESRI 2021, City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019, USFWS, 2020

Table 4.4-2 Sensitive Plant Species Observed† or Potentially Occurring within the Moreno Valley Planning Area					
<i>Scientific Name</i> Common Name	Sensitivity Code and Status				Habitat Preference/ Requirements
	State	Federal	CNPS Rank	MSHCP Status	
ANGIOSPERMS: MONOCOTS					
LILIACEAE LILY FAMILY					
Plummer's mariposa lily <i>Calochortus plummerae</i>	-	-	4.2	Covered	Perennial herb (bulbiferous); chaparral, coastal sage scrub, cismontane forest, lower coniferous forest, valley foothill grasslands; granitic/rocky locales; blooms May–July. Hybridizes with <i>C. weedi</i> var. <i>intermedius</i> .
THEMIDACEAE BRODIAEA FAMILY					
Thread-leaved brodiaea <i>Brodiaea filifolia</i>	Endangered	Threatened	1B.1	Covered	Cismontane woodland, coastal sage scrub, playas, valley and foothill grassland, vernal pools; often clay soils
ANGIOSPERMS: DICOTS					
ASTERACEAE SUNFLOWER FAMILY					
Smooth tarplant † <i>Centromadia pungens</i> ssp. <i>laevis</i>	-	-	1B.1	Covered	Annual herb; chenopod scrub, meadow and seeps, playas, riparian woodland, valley and foothill grassland, alkaline soils; blooms April–Sept.; elevation less than 1,600 feet. Historical locations may be extirpated.
Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>Coulteri</i>	-	-	1B.1	Covered	Annual herb; coastal salt marsh, vernal pools, playas; blooms Feb.–June; elevation less than 4,000 feet.
chaparral ragwort; rayless ragwort; groundsel <i>Senecio aphanactis</i>	-	-	2B.2	-	Annual herb; chaparral, cismontane woodland, coastal sage scrub; blooms January–May; elevation less than 2,700 feet.
Wright's trichocoronis <i>Trichocoronis wrightii</i> var. <i>wrightii</i>	-	-	2B.1	Covered, NE	Annual herb; marshes and swamps, riparian forest and scrub, meadows and seeps, vernal pools; blooms May–Sept.; elevation 20–1,400 feet.
BORAGINACEAE BORAGE FAMILY					
Mud nama <i>Nama stenocarpa</i>	-	-	2B.2	Covered	Annual/perennial herb; marshes and swamps, lake margins, riverbanks; blooms January–July; elevation less than 1,700 feet.

Table 4.4-2 Sensitive Plant Species Observed† or Potentially Occurring within the Moreno Valley Planning Area					
<i>Scientific Name</i> Common Name	Sensitivity Code and Status				Habitat Preference/ Requirements
	State	Federal	CNPS Rank	MSHCP Status	
CHENOPODIACEAE GOOSEFOOT FAMILY					
San Jacinto Valley crownscale <i>Atriplex coronata</i> var. <i>notatior</i>	-	Endangered	1B.1	Covered	Annual herb; layas, mesic valley foothill grasslands, vernal pools; alkaline locations; blooms April–Aug.; elevation 1,250–1,650 feet. Endemic to San Jacinto Valley.
Davidson’s saltscale <i>Atriplex serenana</i> var. <i> davidsonii</i>	-	-	1B.2	Covered	coastal bluff scrub, coastal sage scrub, alkaline soil
BRASSICACEAE MUSTARD FAMILY					
Robinson’s peppergrass <i>Lepidium virginicum</i> var. <i>robinsonii</i>	-	-	4.3	-	Annual herb; coastal sage scrub, chaparral; blooms January–July; elevation less than 2,900 feet.
JUGLANDACEAE WALNUT FAMILY					
Southern California black walnut † <i>Juglans californica</i>	-	-	4.2	Covered	Deciduous tree; chaparral, cismontane woodland, coastal sage scrub; blooms March–May; elevation less than 3,000 feet. Walnut forest rare and declining community.
NYCTAGINACEAE FOUR O’CLOCK FAMILY					
Chaparral sand verbena <i>Abronia villosa</i> var. <i>aurita</i>	-	-	1B.1	-	Annual herb; sandy floodplains in inland, arid areas of coastal sage scrub and open chaparral; blooms January–August; elevation 300–5,300 feet.

Table 4.4-2					
Sensitive Plant Species					
Observed† or Potentially Occurring within the Moreno Valley Planning Area					
Scientific Name Common Name	Sensitivity Code and Status				Habitat Preference/ Requirements
	State	Federal	CNPS Rank	MSHCP Status	
POLEMONIACEAE PHLOX FAMILY					
<i>Navarretia fossalis</i> spreading navarretia	-	Threatened	1B.1	Covered, NE	Annual herb; vernal pools, marshes and swamps, chenopod scrub; blooms April–June; elevation 100–4,300 feet.
POLYGONACEAE BUCKWHEAT FAMILY					
Parry's spineflower <i>Chorizanthe parryi</i> var. <i>parryi</i>	-	-	1B.1	Covered	Annual herb; sandy or rocky openings in chaparral, coastal sage scrub; blooms April–June; elevation 120–5,600 feet.
SOURCE: WRCRCA 2003.					
†Present within Planning Area					
MSHCP					
NE = Narrow endemic					
Covered = Multiple Species Habitat Conservation Program covered species					
CALIFORNIA NATIVE PLANT SOCIETY (CNPS): CALIFORNIA RARE PLANT RANKS (CRPR)					
1A = Species presumed extinct.					
1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.					
2A = Plants presumed extirpated in California, but more common elsewhere.					
2B = Species rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.					
3 = Species for which more information is needed. Distribution, endangerment, and/or taxonomic information is needed.					
4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.					
.1 = Species seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat).					
.2 = Species fairly threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat).					
.3 = Species not very threatened in California (<20% of occurrences threatened; low degree and immediacy of threat or no current threats known).					

b. Sensitive Wildlife

Varied topography and landforms including Box Springs Mountain in the north and the Badlands east of the city provide for a diversity of wildlife species. Mammals such as mule deer can be found in the Box Springs Mountains and in the Badlands. Large carnivores, such as coyotes, bobcats, badgers, and gray fox have been found in the undeveloped portions of the city. Opossums, raccoons, skunks, cottontail rabbits, and rodent species are common to the study area. A wide variety of reptiles are found in the study area. Owls, hawks, and other birds of prey can be seen at various times throughout the year or during migration periods. Wild donkeys (*Equus africanus asinus*) have been documented north of SR-60.

Observed locations of sensitive wildlife observations within the city are based on the California Natural Diversity Database (2021) and USFWS (USFWS 2019), and presented in Figure 4.4-2. Table 4.4-3 provides both observed and potentially occurring species in the Planning Area. Locations of sensitive wildlife observations within the city are primarily located in the southeastern portion of the city adjacent to the Lake Perris State Recreation Area, as well as some areas along the eastern and northern boundaries of the city.

Table 4.4-3 Sensitive Wildlife Species Observed† or Potentially Occurring within the Moreno Valley Planning Area				
Species' Common Name/ Scientific Name	State Status	Federal Status	MSHCP Status	Habitat Preference/ Requirements
INVERTEBRATES (Nomenclature from Eriksen and Belk 1999; San Diego Natural History Museum 2002)				
STREPTOCEPHALIDAE FAIRY SHRIMP				
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	-	Endangered	Covered	Vernal pools.
APIDAE HONEY BEES, BUMBLE BEES, AND ALLIES				
Crotch's bumble bee <i>Bombus crotchii</i>	Candidate Endangered	-	-	Coastal areas, open grasslands, shrub habitats.
AMPHIBIANS (Nomenclature from Crother et al. 2017)				
PELOBATIDAE SPADEFOOT TOADS				
Western spadefoot † <i>Spea hammondi</i>	Species of Concern	-	Covered	Vernal pools, floodplains, and alkali flats within areas of open vegetation.
REPTILES (Nomenclature from Crother 2017)				
IGUANIDAE IGUANID LIZARDS				
Coast horned lizard † <i>Phrynosoma blainvillii</i> [= <i>P. coronatum</i> coastal population]	Species of Concern	-	Covered	Chaparral, coastal sage scrub with fine, loose soil. Partially dependent on harvester ants for forage.
TEIIDAE WHIPTAIL LIZARDS				
Belding's orange-throated whiptail † <i>Aspidoscelis hyperythra beldingi</i>	Watch List	-	Covered	Chaparral, coastal sage scrub with coarse sandy soils and scattered brush.
ANNIELLIDAE LEGLESS LIZARDS				
San Diegan legless lizard <i>Anniella stebbensi</i> sp. [=pulchra pulchra]	Species of Concern	-	-	Herbaceous layers with loose soil in coastal scrub, chaparral, and open riparian. Prefers dunes and sandy washes near moist soil.
COLUBRIDAE COLUBRID SNAKES				
California glossy snake <i>Arizona elegans occidentalis</i>	Species of Concern	-	-	Rocky areas in wet locales, such as swamps, damp forests, or riparian woodlands.
CROTALIDAE RATTLESNAKES				
Red diamond rattlesnake † <i>Crotalus ruber</i>	Species of Concern	-	Covered	Desert scrub and riparian, coastal sage scrub, open chaparral, grassland, and agricultural fields.

Table 4.4-3 Sensitive Wildlife Species Observed† or Potentially Occurring within the Moreno Valley Planning Area				
Species' Common Name/ Scientific Name	State Status	Federal Status	MSHCP Status	Habitat Preference/ Requirements
PHRYNOSOMATIDAE SPINY LIZARDS				
Granite spiny lizard † <i>Sceloporus orcutti</i>	-	-	Covered	Wide variety of habitats but is restricted to granite outcrops and boulder fields.
XANTUSIIDAE NIGHT LIZARDS				
Granite night lizard † <i>Xantusia henshawi</i>	-	-	Covered	Flaking granite, rock outcrops, and boulder fields, most commonly with chaparral, sage scrub, mixed conifer forest, and oak woodland.
BIRDS (Nomenclature from Chesser et al. 2019 and CDFW 2021)				
THRESKIORNITHIDAE IBISES				
White-faced ibis (rookery site) <i>Plegadis chihi</i>	Watch List	-	Covered	Freshwater ponds, irrigated fields, brackish lagoons. Migrant and winter visitor, rare in summer. Very localized breeding.
CATHARTIDAE NEW WORLD VULTURES				
Turkey vulture (breeding) † <i>Cathartes aura</i>	-	-	Covered	Nest and roost sites include cliffs, caves, ledges, rock outcrops; and foraging habitats include deciduous forest, woodlands, and scrublands; often seen over farmlands.
ACCIPITRIDAE HAWKS, KITES, & EAGLES				
Cooper's hawk (nesting) † <i>Accipiter cooperii</i>	Watch List	-	Covered	Mature forest, open woodlands, wood edges, river groves. Parks and residential areas.
Ferruginous hawk (wintering) † <i>Buteo regalis</i>	Watch List	-	Covered	Require large foraging areas. Grasslands, agricultural fields. Uncommon winter resident.
CUCULIDAE CUCKOOS & ROADRUNNERS				
Western yellow-billed cuckoo † <i>Coccyzus americanus occidentalis</i>	Endangered	Threatened	Covered	Riparian woodlands. Summer resident. Very localized breeding.
STRIGIDAE TYPICAL OWLS				
Western burrowing owl (burrow sites) <i>Athene cunicularia hypugaea</i>	Species of Concern	-	Covered	Grassland, agricultural land, coastal dunes. Require rodent burrows. Declining resident.
PICIDAE WOODPECKERS & SAPSUCKERS				
Downy woodpecker <i>Picoides pubescens</i>	-	-	Covered	Riparian scrub, woodland, and forest, and oak woodland and forest habitat

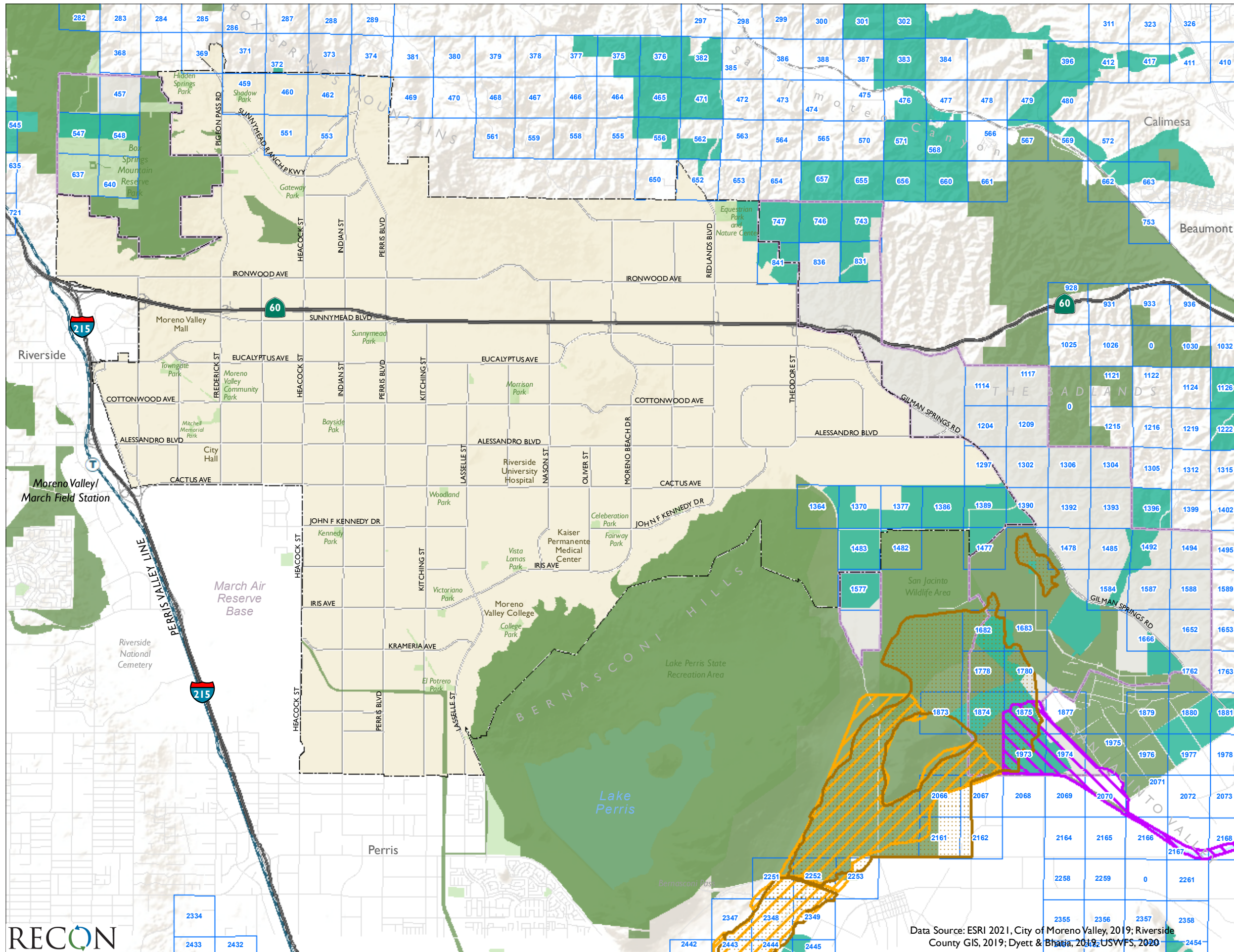
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Species' Common Name/ Scientific Name	State Status	Federal Status	MSHCP Status	Habitat Preference/ Requirements
TYRANNIDAE TYRANT FLYCATCHERS				
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	Endangered	Endangered	Covered	Nesting restricted to willow thickets. Also occupies other woodlands. Rare spring and fall migrant, rare summer resident. Extremely localized breeding.
LANIIDAE SHRIKES				
Loggerhead shrike <i>Lanius ludovicianus</i>	Species of Concern	-	Covered	Open foraging areas near scattered bushes and low trees.
VIREONIDAE VIREOS				
Least Bell's vireo (nesting) † <i>Vireo bellii pusillus</i>	Endangered	Endangered	Covered	Willow riparian woodlands. Summer resident.
HIRUNDINIDAE SWALLOWS				
Tree swallow † <i>Tachycineta bicolor</i>	-	-	Covered	Riparian scrub, woodland and forest, and oak woodland and forest within the vicinity of water.
SYLVIIDAE GNATCATCHERS				
Coastal California gnatcatcher † <i>Poliopitila californica californica</i>	Species of Concern	Threatened	Covered	Coastal sage scrub, maritime succulent scrub. Resident.
PARULIDAE WOOD WARBLERS				
Yellow warbler (nesting) <i>Setophaga [=Dendroica] petechia</i>	Species of Concern	-	Covered	Breeding restricted to riparian woodland. Spring and fall migrant, localized summer resident, rare winter visitor.
Yellow-breasted chat (nesting) † <i>Icteria virens auricollis</i>	Species of Concern	-	Covered	Dense riparian woodland. Localized summer resident.
PASSERELLIDAE NEW WORLD PASSERINES				
Southern California rufous-crowned sparrow † <i>Aimophila ruficeps canescens</i>	Watch List	-	Covered	Coastal sage scrub, chaparral, grassland. Resident.
Bell's sage sparrow † <i>Artemisospiza [=Amphispiza] belli belli</i>	Watch List	-	Covered	Chaparral, coastal sage scrub. Localized resident.
Wilson's warbler † <i>Cardellina pusilla</i>	-	-	Covered	Montane meadows, shrub habitats, and deciduous woodland habitats.
MacGillivray's warbler <i>Geothlypis tolmiei</i>	-	-	Covered	Montane coniferous forest and woodland, riparian scrub, woodland, and forest habitat, oak woodland and forest, chaparral, coastal sage scrub, desert scrub, and Riversidean alluvial fan sage scrub.

Table 4.4-3 Sensitive Wildlife Species Observed† or Potentially Occurring within the Moreno Valley Planning Area				
Species' Common Name/ Scientific Name	State Status	Federal Status	MSHCP Status	Habitat Preference/ Requirements
Lincoln's sparrow † <i>Melospiza lincolni</i>	-	-	Covered	Montane meadow and wet montane meadow and the edges of montane riparian or riparian scrub.
ICTERIDAE				
Tricolored blackbird (nesting) † <i>Agelaius tricolor</i>	Threatened, Species of Concern	-	Covered	Freshwater marshes, agricultural areas, lakeshores, parks. Localized resident.
MAMMALS (Nomenclature from Baker et al. 2003 and Hall 1981)				
VESPERTILIONIDAE VESPER BATS				
Western red bat <i>Lasiurus blossevillii</i>	Species of Concern	-	-	Prefers riparian areas dominated by cottonwoods, oaks, sycamores, and walnuts.
Western yellow bat † <i>Lasiurus xanthinus</i>	Species of Concern	-	-	Found in valley foothill riparian, desert riparian, desert washes, and palm oasis habitats.
MOLOSSIDAE FREE-TAILED BATS				
Pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	Species of Concern	-	-	Observed in a variety of habitats, including desert scrub and pine-oak forests.
LEPORIDAE RABBITS & HARES				
San Diego black-tailed jackrabbit <i>Lepus californicus bennettii</i>	Species of Concern	-	Covered	Open areas of scrub, grasslands, agricultural fields.
Brush rabbit † <i>Sylvilagus bachmani</i>	-	-	Covered	Chaparral, Diegan coastal sage scrub, Riversidean sage scrub, and alluvial fan sage scrub, riparian and woodland habitats, coniferous forest, and agricultural areas (grove/orchard, and field crops).
HETEROMYIDAE POCKET MICE & KANGAROO RATS				
Northwestern San Diego pocket mouse † <i>Chaetodipus fallax fallax</i>	Species of Concern	-	Covered	San Diego County west of mountains in sparse, disturbed coastal sage scrub or grasslands with sandy soils.
Los Angeles little pocket mouse † <i>Perognathus longimembris brevinasus</i>	Species of Concern	-	Covered	Desert riparian, scrub, wash. Coastal scrub and sagebrush. Localized.
San Bernardino kangaroo rat † <i>Dipodomys merriami parvus</i>	Candidate Endangered	Endangered	Covered	Open coastal sage scrub, Riversidean alluvial fan sage scrub, or grasslands; fine, alluvial sands.

Table 4.4-3 Sensitive Wildlife Species Observed† or Potentially Occurring within the Moreno Valley Planning Area				
Species' Common Name/ Scientific Name	State Status	Federal Status	MSHCP Status	Habitat Preference/ Requirements
Stephens' kangaroo rat † <i>Dipodomys stephensi</i>	Threatened	Endangered	Covered	Grassland and open areas with less than 50% cover. Prefers areas dominated by filaree (<i>Erodium</i> spp.) and annual brome grasses (<i>Bromus</i> spp). Well-drained and friable (easy to dig) soils.
MURIDAE OLD WORLD MICE & RATS (I)				
Southern grasshopper mouse <i>Onychomys torridus ramona</i>	Species of Concern	-	-	Alkali desert scrub & desert scrub preferred. Can also occur in succulent shrub, wash, & riparian areas; coastal sage scrub, mixed chaparral, sagebrush, low sage, and bitterbrush. Low to moderate shrub cover preferred.
CANIDAE CANIDS				
Coyote † <i>Canis latrans</i>	-	-	Covered	Primary habitats include grasslands, short-grass prairies, semiarid sagebrush, and broken forests. Also found in urban settings.
SOURCE: WRCRCA 2003. †Observed within Moreno Valley based on CDFW 2021 or USFWS 2019. MSHCP Covered = Multiple Species Habitat Conservation Program covered species.				

c. Public/Quasi-Public Lands

As a part of the MSHCP Conservation Area lands, approximately 347,000 acres of lands known as Public/Quasi-Public Lands were established and occur within public/private ownership which contribute towards the conservation of Covered Species (including lands contained in existing reserves). Public/Quasi-Public lands within and adjacent to the Planning Area are shown on Figure 4.4-3.



- City of Moreno Valley
- Sphere of Influence
- Criteria Cells
- MSHCP Conserved Lands
- Public/Quasi-Public Lands
- San Bernardino Kangaroo Rat Final Critical Habitat
- Spreading Navarretia Final Critical Habitat
- San Jacinto Valley Crownscale Proposed Critical Habitat

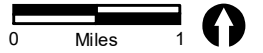


FIGURE 4.4-3
MSHCP Covered Lands
and Criteria Cells

Data Source: ESRI 2021, City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhaun, 2019; USWFS, 2020



d. Criteria Cells and MSHCP Conserved Lands

The MSHCP designates Criteria Area boundaries, which contain cells (termed ‘Criteria Cells’) approximately 160 acres in size that have been identified as having conservation potential. The establishment of Criteria Area boundaries is intended to facilitate the process by which jurisdictions will evaluate property that may be needed for inclusion in the MSHCP Conservation Area. The Criteria Area is an analytical tool within which property will be evaluated using MSHCP Conservation Criteria to determine what properties are needed for the MSHCP Conservation Area and does not impose land use restrictions. Public and private development within the Criteria Area that is determined to be consistent with the MSHCP Conservation Criteria is considered a Covered Activity, and land not needed for the MSHCP Conservation Area shall receive Take Authorization for Covered Species Adequately Conserved through the permits issued by jurisdictions pursuant to the MSHCP.

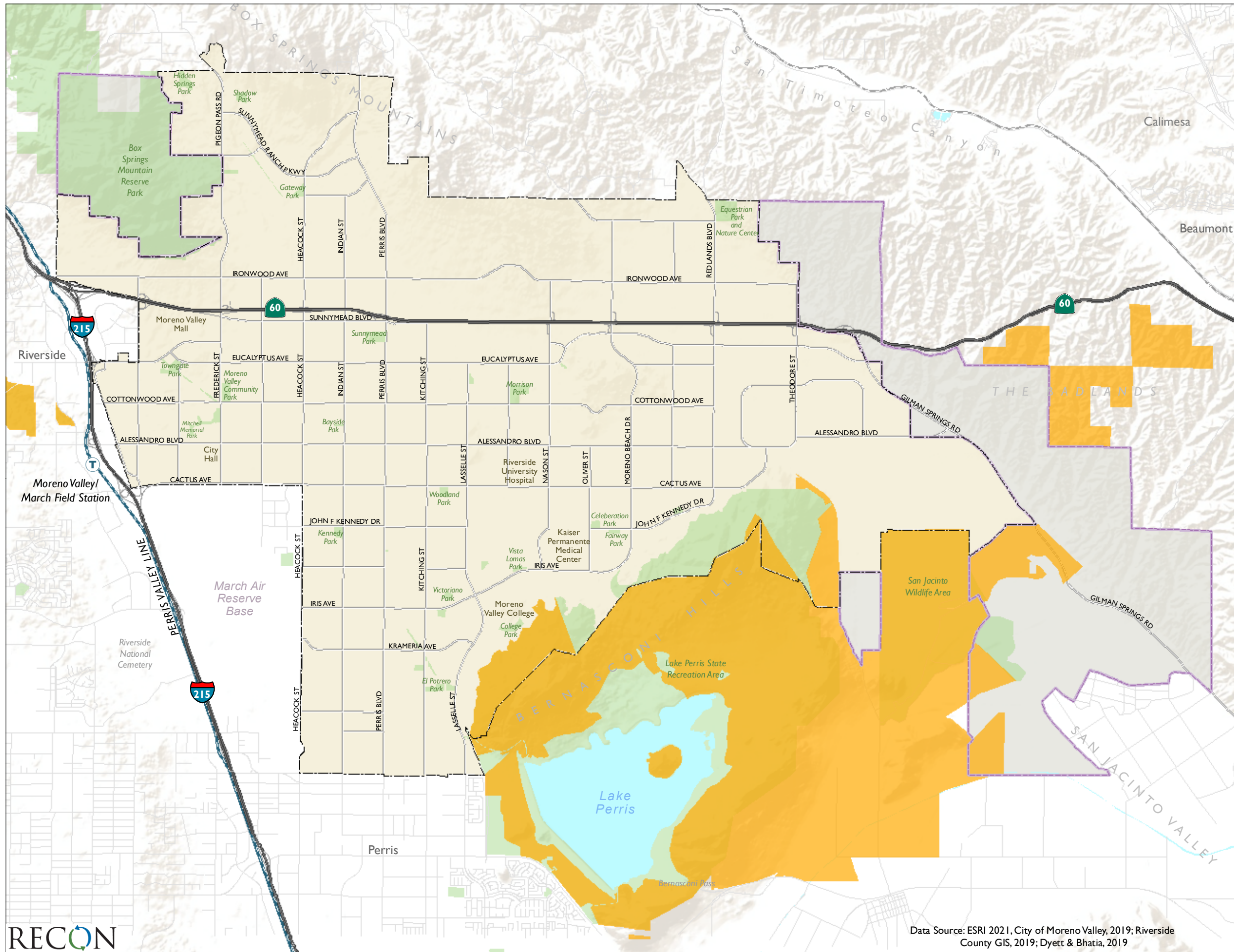
Figure 4.4-3 shows the locations of existing MSHCP Criteria Cells and Conserved Lands within the city. Criteria Cells are limited to the edges of the city boundaries including north of Sunnymead Ranch Parkway in the northwest; northerly of and east of Ironwood Avenue in the northeast; and in the area bordering San Jacinto Wildlife Area in the southeast. MSHCP Conserved Lands are located within existing Criteria Cells in the northeast and southeast portions of the city.




4.4.1.3 Stephens’ Kangaroo Rat Habitat Conservation Plan and Stephen’s Kangaroo Rat Core Reserves

As part of the USFWS approved long-term Stephens’ kangaroo rat (Habitat Conservation Plan (HCP), a core reserve area consisting of undeveloped lands in the Lake Perris State Recreation Area and San Jacinto Wildlife Area, and previously farmed lands to the east was established for the purpose of setting aside habitat for the Stephens’ kangaroo rat. These areas include suitable and occupied habitat for this species. The 10,932-acre San Jacinto-Lake Perris core reserve is located southeast of the city and north of the Ramona Expressway and is the third largest of all the core reserves (Figure 4.4-4). A small portion of this core reserve area occurs on the south end of the Planning Area.

4.4.1.4 Wildlife Movement and Corridors

Wildlife movement corridors and habitat linkages are areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Corridors are generally local pathways connecting short distances usually covering one or two main types of vegetation communities. Linkages are landscape-level connections between very large core areas and generally span several thousand feet and cover multiple habitat types. The habitat connectivity provided by corridors and linkages is important in providing access to mates, food, and water, allowing the dispersal of individuals away from high population density areas and facilitating the exchange of genetic traits between populations (Beier and Loe 1992).



-  City of Moreno Valley
-  Sphere of Influence
-  Stephens' Kangaroo Rat Core Reserve Area

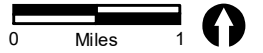


FIGURE 4.4-4
Stephens' Kangaroo Rat
Core Reserve Area

A majority of the Planning Area is already developed; however, some native habitats occur along the northern and southeastern borders as part of the Box Springs Mountains, the Badlands, and Bernasconi Hills. Wildlife movement within and between these designated core biological resource areas are currently restricted to the south, east, and north, respectively, by the existing development within the Planning Area. Within the native habitats mapped in the city, wildlife movement can occur in these localized areas, but eventually are restricted by existing development.

4.4.1.5 Designated Critical Habitats

The USFWS has designated revised critical habitat for San Bernardino kangaroo rat, San Jacinto Valley crowscale, and spreading navarretia outside, but adjacent to the Planning Area (USFWS 2008, 2013, and 2010, respectively). Critical habitats for these species occur within one mile of the city (see Figure 4.4-3). To-date, only one species, San Bernardino kangaroo rat, has been observed within the Planning Area limits. However, this observation is from 1913 and not expected to persist in this location as it has been completely developed. Both San Jacinto Valley crowscale and spreading navarretia have not been detected within the Planning Area.

4.4.1.6 Conserved Lands

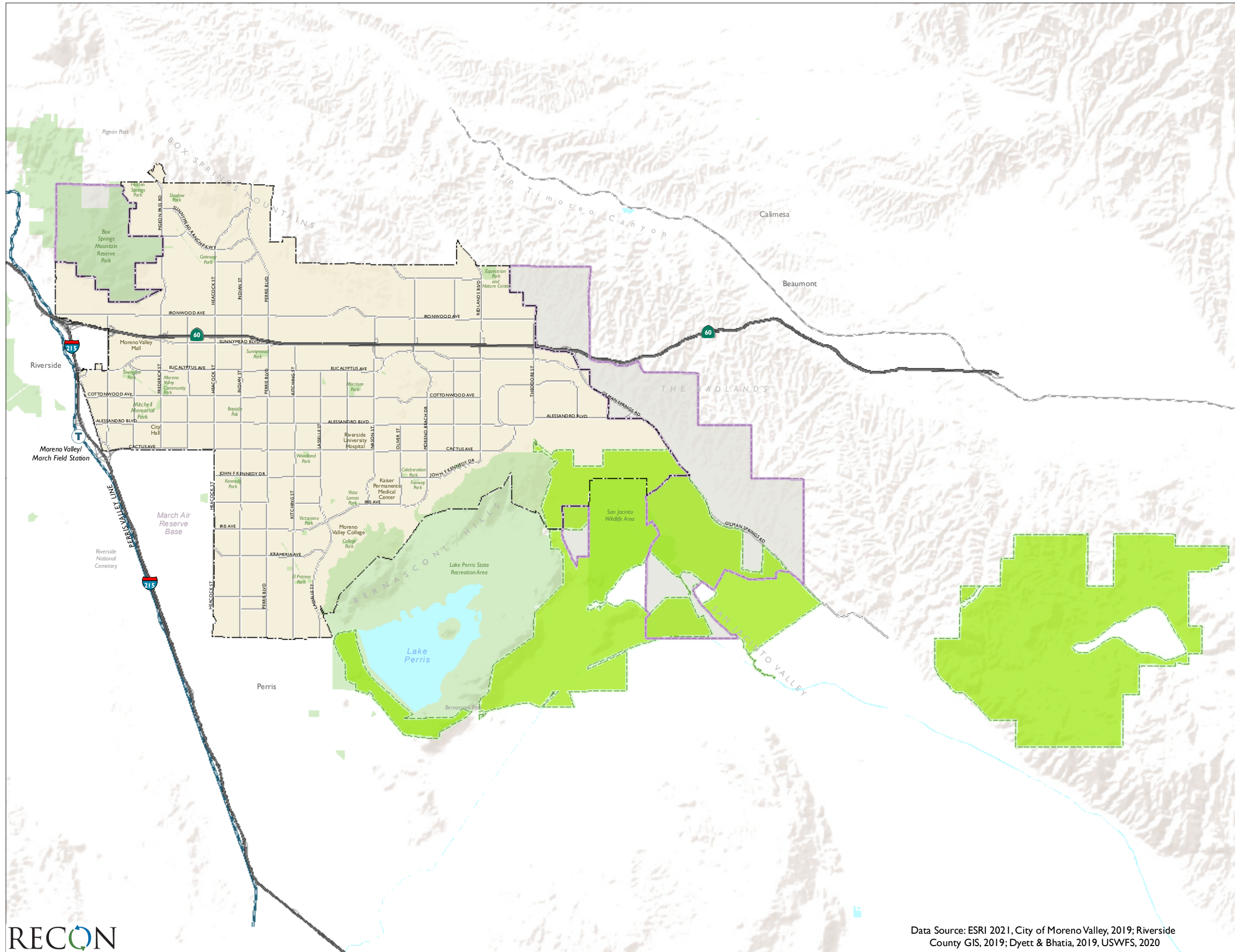
The San Jacinto Wildlife Area, located at the southeast corner of the Planning Area is a 12,000-acre wildlife preserve noted for its diversity of migratory birds (Figure 4.4-5). Other conserved lands surrounding the city include the Lake Perris Recreation Area located adjacent to the southern city limits, and the Box Springs Mountain Reserve Park located northwest of the city limits.

4.4.2 Applicable Regulatory Requirements

4.4.2.1 Federal Regulations

a. Federal Endangered Species Act

The United States Congress passed the Federal Endangered Species Act (FESA) in 1973 to provide a means for conserving endangered and threatened species in order to prevent species extinction, extirpation, etc. The FESA has four major components: the Section 4 provisions for listing species and designating critical habitat; the Section 7 requirement for federal agencies to consult with the USFWS to ensure that their actions are not likely to jeopardize the continued existence of species or result in the modification or destruction of critical habitat; the Section 9 prohibition against “taking” listed species; and the Section 10 provisions for permitting the incidental take of listed species. The term “take” is defined by the FESA to include the concept of “harm,” which agency regulations define to include death or injury that results from modification or destruction of a species habitat (50 Code of Federal Regulations [CFR] 17.3).






-  City of Moreno Valley
-  Sphere of Influence
-  San Jacinto Wildlife Area



FIGURE 4.4-5
San Jacinto Wildlife Area

Section 7 of the FESA

Section 7 of the FESA provides that each federal agency undertaking a federal action which could significantly affect FESA species shall consult with the Secretary of Interior or Commerce, that any actions authorized, funded, or carried out by the agency are “not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of lands determined to be critical habitat” (16 United States Code [USC] Section 1536(a)(2)). The term “agency action” is broadly defined in a manner that includes nearly all actions taken by federal agencies such as permitting or carrying out a project, as well as actions by private parties which require federal agency permits or approval (50 CFR Section 402.02). The consultation requirement of Section 7 is triggered upon a determination that a proposed action “may affect” a listed species or designated Critical Habitat (50 CFR Section 402.14(a)). If the proposed action is a “major construction” activity, the federal agency proposing the action must prepare a biological assessment to include with its request for the initiation of Section 7 consultation.

Included in the USFWS Biological Opinion is an Incidental Take Statement (ITS) that authorizes a specified level of take anticipated to result from the proposed action. The ITS contains “reasonable and prudent measures” that are designed to minimize the level of incidental take, adverse modification, or destruction to critical habitat, and that must be implemented as a condition of the take authorization (50 CFR Section 402.14(i)(5)).

The issuance of a Biological Opinion concludes formal consultation, but consultation can be reinitiated if the amount or extent of incidental take authorized is exceeded, the action changes, new information reveals effects of the action not previously considered, or a new species is listed or Critical Habitat is designated (50 CFR Section 402.16). Once the Biological Opinion is issued, the project applicant must implement the terms and conditions, and conservation measures, mandated by the USFWS. Monitoring and reporting is required to be coordinated with the USFWS during the implementation of conservation measures.

Section 9 of the FESA

Section 9 of the FESA prohibits any person from “taking” an endangered animal species. Regulations promulgated by USFWS and National Oceanic and Atmospheric Administration make the “take” prohibition generally applicable to threatened animal species as well (50 CFR 17.71). Section 9 thus prohibits the clearing of habitat that results in death or injury to members of a protected species.

An authorization or permit to incidentally take listed species can be obtained either through the Section 7 consultation process or through the Section 10 incidental take permit process. In the context of Section 7, incidental take is authorized through an ITS that is issued consistent with a Biological Opinion. Measures required to conform to the ITS are contained in “reasonable and prudent measures,” as are the terms and conditions necessary to implement those measures. In the context of Section 10, incidental take is authorized through an ITP issued pursuant to Section 10(a)(1)(B). Measures contained in the ITP reflect the measures set out in a habitat conservation plan developed by the applicant in conjunction with the USFWS.

Section 10 of the FESA

Under Section 10(a)(1)(B) of the FESA, the USFWS may permit the incidental take of listed species that may occur as a result of an otherwise lawful activity. To obtain a Section 10(a)(1)(B) permit, an applicant must prepare a habitat conservation plan that meets the following five criteria: (1) the taking will be incidental to an otherwise lawful activity; (2) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking; (3) the applicant will ensure that adequate funding for the plan will be provided; (4) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and (5) other measures, if any, that the USFWS requires as being necessary or appropriate for purposes of the plan will be met (16 USC Section 1539(a)(2)(A)).

b. Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC 703 et seq.) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive and is listed at 50 CFR 10.13. The regulatory definition of “migratory bird” is broad, and includes any mutation or hybrid of a listed species and any part, egg, or nest of such birds (50 CFR 10.12). The MBTA, which is enforced by USFWS, makes it unlawful “by any means or in any manner, to pursue, hunt, take, capture, [or] kill” any migratory bird, or attempt such actions, except as permitted by regulation. The take, possession, import, export, transport, sale, purchase, barter, or offering of these activities is prohibited, except under a valid permit or as permitted in the implementing regulations (50 CFR 21.11).

c. United States Army Corps of Engineers

The United States Army Corps of Engineers (USACE) has primary federal responsibility for administering regulations that concern waters and wetlands in the Planning Area. In this regard, the USACE acts under two statutory authorities, the Rivers and Harbors Act (33 USC, Sections 9 and 10), which governs specified activities in navigable waters, and the Clean Water Act (CWA; Section 404), which governs specified activities in waters of the U.S., including wetlands and special aquatic sites. Wetlands and non-wetland waters (e.g., rivers, streams, and natural ponds) are a subset of waters of the U.S. and receive protection under Section 404 of the CWA. The USACE has primary federal responsibility for administering regulations that concern waters and wetlands in the project area under statutory authority of the CWA (Section 404). In addition, the regulations and policies of various federal agencies mandate that the filling of wetlands be avoided to the maximum extent feasible. The USACE requires obtaining a permit if a project proposes placing structures within navigable waters and/or alteration of waters of the U.S.

4.4.2.2 State Regulations

a. California Endangered Species Act

Similar to the FESA, the California Endangered Species Act (CESA) of 1970 provides protection to species considered threatened or endangered by the State of California (California Fish and Game Code, Section 2050 et seq.). The CESA recognizes the importance of threatened and endangered fish, wildlife, and plant species and their habitats, and prohibits the taking of any endangered, threatened, or rare plant and/or animal species unless specifically permitted for education or management purposes.

The CESA declares that deserving plant or animal species would be given protection by the state because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the state. CESA establishes that it is state policy to conserve, protect, restore, and enhance endangered species and their habitats. Under state law, plant and animal species may be formally designated as rare, threatened, or endangered through official listing by the California Fish and Game Commission. Listed species are given greater attention during the land use planning process by local governments, public agencies, and landowners than are species that have not been listed.

CESA authorizes that “[p]rivate entities may take plant or wildlife species listed as endangered or threatened under FESA and CESA, pursuant to a federal incidental take permit issued in accordance with Section 10 of the FESA, if the CDFW certifies that the incidental take statement or incidental take permit is consistent with CESA (Fish and Game Code Section 2080.1(a)).

Section 2081(b) and (c) of the CESA allows CDFW to issue an incidental take permit for a state-listed threatened and endangered species only if specific criteria are met. These criteria can be found in Title 14 California Code of Regulations (CCR), Sections 783.4(a) and (b). No Section 2081(b) permit may authorize the take of “fully protected” species and “specified birds.” If a project is planned in an area where a fully protected species or specified bird occurs, an applicant must design the project to avoid all take; the CDFW cannot provide take authorization under CESA. On private property, endangered plants may also be protected by the Native Plant Protection Act (NPPA) of 1977. Threatened plants are protected by CESA, and rare plants are protected by the NPPA; however, CESA authorizes that “Private entities may take plant species listed as endangered or threatened under the FESA and CESA through a federal ITP issued pursuant to Section 10 of the FESA, if the CDFW certifies that the ITS or ITP is consistent with CESA.” In addition, CEQA requires disclosure of any potential impacts on listed species and alternatives or mitigation that would reduce those impacts.

b. CEQA: Treatment of Listed Plant and Animal Species

FESA and CESA protect only those species formally listed as threatened or endangered (or rare in the case of the state list). Section 15380 of the CEQA Guidelines independently defines “endangered” species of plants or animals as those whose survival and reproduction in the

wild are in immediate jeopardy and “rare” species as those who are in such low numbers that they could become endangered if their environment worsens. Therefore, a project normally would have a significant effect on the environment if it would substantially affect a rare or endangered species of animal or plant or the habitat of the species. The significance of impacts to a species under CEQA must be based on analyzing actual rarity and threat of extinction despite legal status or lack thereof.

c. California Fish and Game Code - Sections 1601 to 1603

Streambeds and other drainages that occur within the Planning Area are subject to regulation by the CDFW. The CDFW considers most drainages to be “streambeds” unless it can be demonstrated otherwise. A stream is defined as a body of water that flows at least periodically or intermittently through a bed or channel with banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports, or has supported, riparian vegetation. CDFW jurisdiction typically extends to the edge of the blue-line streams, and therefore, usually encompasses a larger area than USACE jurisdiction.

d. California Fish and Game Code - Sections 3503 and 3503.5

Under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 of the California Fish and Game Code prohibits take, possession, or destruction of any birds in the orders Falconiformes (raptors) or Strigiformes (owls) or of their nests and eggs.

e. Regional Water Quality Control Board

The federal Water Pollution Control Act (also known as the Clean Water Act) (33 USC 1251 et seq.), as amended by the Water Quality Act of 1987 (PL 1000-4), is the major federal legislation governing water quality. The purpose of the CWA is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Discharges into waters of the U.S are regulated under Section 404. Waters of the U.S. include (1) all navigable waters (including all waters subject to the ebb and flow of tides); (2) all interstate waters and wetlands; (3) all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, or natural ponds; (4) all impoundments of waters mentioned above; (5) all tributaries to waters mentioned above; (6) the territorial seas; and (7) all wetlands adjacent to waters mentioned above.

f. California Natural Community Conservation Planning Act of 1991

The Natural Community Conservation Planning (NCCP) Act is designed to conserve habitat-based natural communities at the ecosystem scale while accommodating compatible land uses in coordination with CESA. CDFW is the principal state agency implementing the NCCP program. The act established a process to allow for comprehensive, long-term, regional, multi-species, and habitat-based planning in a manner that satisfies the requirements of the

state and FESAs (through a companion regional habitat conservation plan). The NCCP program has provided the framework for innovative efforts by the state, local governments, and private interests, to plan for the protection of regional biodiversity and the ecosystems upon which they depend. NCCPs seek to ensure the long-term conservation of multiple species, while allowing for compatible and appropriate economic activity to proceed.

4.4.2.3 Local Regulations

a. Western Riverside County Multiple Species Habitat Conservation Plan

The MSHCP is a comprehensive multi-jurisdictional habitat conservation plan focusing on the conservation of species and their associated habitats. It is one of several large multi-jurisdictional habitat-planning efforts in southern California with the overall goal of maintaining biological and ecological diversity within a rapidly urbanizing region. The MSHCP allows the County of Riverside and its cities to better control local land use decisions and maintain a strong economic climate in the region while addressing the requirements of the FESA (WRCRCA 2003). The MSHCP area encompasses 1.26 million acres (1,966 square miles), including all unincorporated Riverside County land west of the crest of the San Jacinto Mountains to the Orange County line, as well as the cities of Temecula, Murrieta, Lake Elsinore, Canyon Lake, Norco, Corona, Riverside, Moreno Valley, Banning, Beaumont, Calimesa, Perris, Hemet, Menifee, Eastvale, Jurupa Valley, and San Jacinto.

The MSHCP serves as a habitat conservation plan pursuant to Section 10(a)(1)(B) of the FESA, as amended, as well as a Natural Community Conservation Plan under the NCCP Act of 2001. The MSHCP is used to allow the participating jurisdictions to authorize “take” of plant and wildlife species identified within the plan area. The MSHCP designates Criteria Area boundaries, which contain Criteria Cells approximately 160 acres in size that have been identified as having conservation potential. The establishment of Criteria Area boundaries is intended to facilitate the process by which jurisdictions will evaluate property that may be needed for inclusion in the MSHCP Conservation Area. The Criteria Area is an analytical tool within which property will be evaluated using MSHCP Conservation Criteria to determine what properties are needed for the MSHCP Conservation Area, and does not impose land use restrictions. Public and private development within the Criteria Area that is determined to be consistent with the MSHCP Conservation Criteria is considered a Covered Activity, and land not needed for the MSHCP Conservation Area shall receive Take Authorization for Covered Species Adequately Conserved through the permits issued by jurisdictions pursuant to the MSHCP.

Figure 4.4-3 shows the locations of existing MSHCP Criteria Cells and Conserved Lands within the city. The Planning Area is partially located within Subunits 1, 2, 3, and 4 of the MSHCP, Reche Canyon/Badlands Area Plan. Criteria Cells are limited to the edges of the city boundaries including north of Sunnymead Ranch Parkway in the northwest; northerly of and east of Ironwood Avenue in the northeast; and in the area bordering San Jacinto Wildlife Area in the southeast. MSHCP Conserved Lands are located within existing Criteria Cells in the northeast and southeast portions of the city.

b. Stephens' Kangaroo Rat Habitat Conservation Plan

In 1996, USFWS approved a long-term HCP for Stephens' kangaroo rat and granted an incidental take permit for Riverside County, covering an estimated 30,000 acres of occupied habitat, including land within Moreno Valley (Riverside County Habitat Conservation Agency [RCHCA] 1996) (see Figure 4.4-4). The HCP authorizes the incidental take of half of the occupied habitat remaining in the HCP area while using development fees to implement the plan, purchase private property, and create a reserve system. The Stephens' Kangaroo Rat HCP and corresponding permits are in effect for areas covered by the MSHCP; however, the Stephens' Kangaroo Rat HCP and the MSHCP remain separate. The Stephens' Kangaroo Rat Fee Area is subject to mandatory conservation measures as outlined in the Stephens' Kangaroo Rat HCP (RCHCA 1996) and as subsequently modified.

c. Municipal Code

Western Riverside County Multiple Species Habitat Conservation Plan Fee Program and Stephens' Kangaroo Rat Habitat Conservation Plan

Title 3, Chapter 3.48 of the Municipal Code establishes a local development mitigation fee to further implementation of the MSHCP. These fees are intended to assist in the maintenance of biological diversity and the natural ecosystem and protect vegetation communities and natural areas within the city and western Riverside County which are known to support threatened, endangered, or key sensitive populations of plant and wildlife species. These fees also serve to provide a streamlined regulatory process from which development can proceed in an orderly process, and protect the existing character of the city and the region through the implementation of a system of reserves which will provide for permanent open space, community edges, and habitat conservation for species covered by the MSHCP.

Threatened and Endangered Species

Title 8, Chapter 8.60 of the Municipal Code contains provisions for the protection of the Stephens' Kangaroo Rat pursuant to the Stephens' Kangaroo Rat HCP, including the collection of an impact and mitigation fee to provide funds to implement the terms of the Stephens' Kangaroo Rat HCP.

Heritage Trees

Title 9, Chapter 9.17.030, Section G of the Municipal Code provides a definition of Heritage Trees and identifies and includes policies for preservation, as well as the measures by which trees can be removed.

4.4.3 Methodologies for Determining Impacts

Preparation of this section began with an extensive review of the most current biological literature and gathering of geographical information systems (GIS) data available for the Planning Area.

The sensitive flora and fauna species that are known to occur within the Planning Area are based on information obtained from the literature review. General flora and fauna species were determined based on the identified vegetation communities and the species that typically occur in these habitats. An in-house search of MSHCP, USFWS, and CNDDDB databases was also performed to identify historical occurrences of sensitive plants and wildlife species within the Planning Area. The proposed Concept Areas were then overlain on the existing biological resources GIS data to determine the approximate maximum acreage of impact to vegetation communities and proximity to known sensitive species locations within the Planning Area. This was followed by an evaluation of how the proposed GPU goals would serve to either preserve or impact biological resources within the Planning Area.

4.4.4 Basis for Determining Significance

Thresholds used to evaluate impacts to biological resources are based on applicable criteria in the CEQA Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. A significant impact would occur if the project would:

- 1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the CDFW or USFWS;
- 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 CDFW or USFWS;
- 3) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- 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;
- 5) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance; or
- 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.

4.4.5 Impact Analysis

4.4.5.1 Topic 1: Sensitive Species

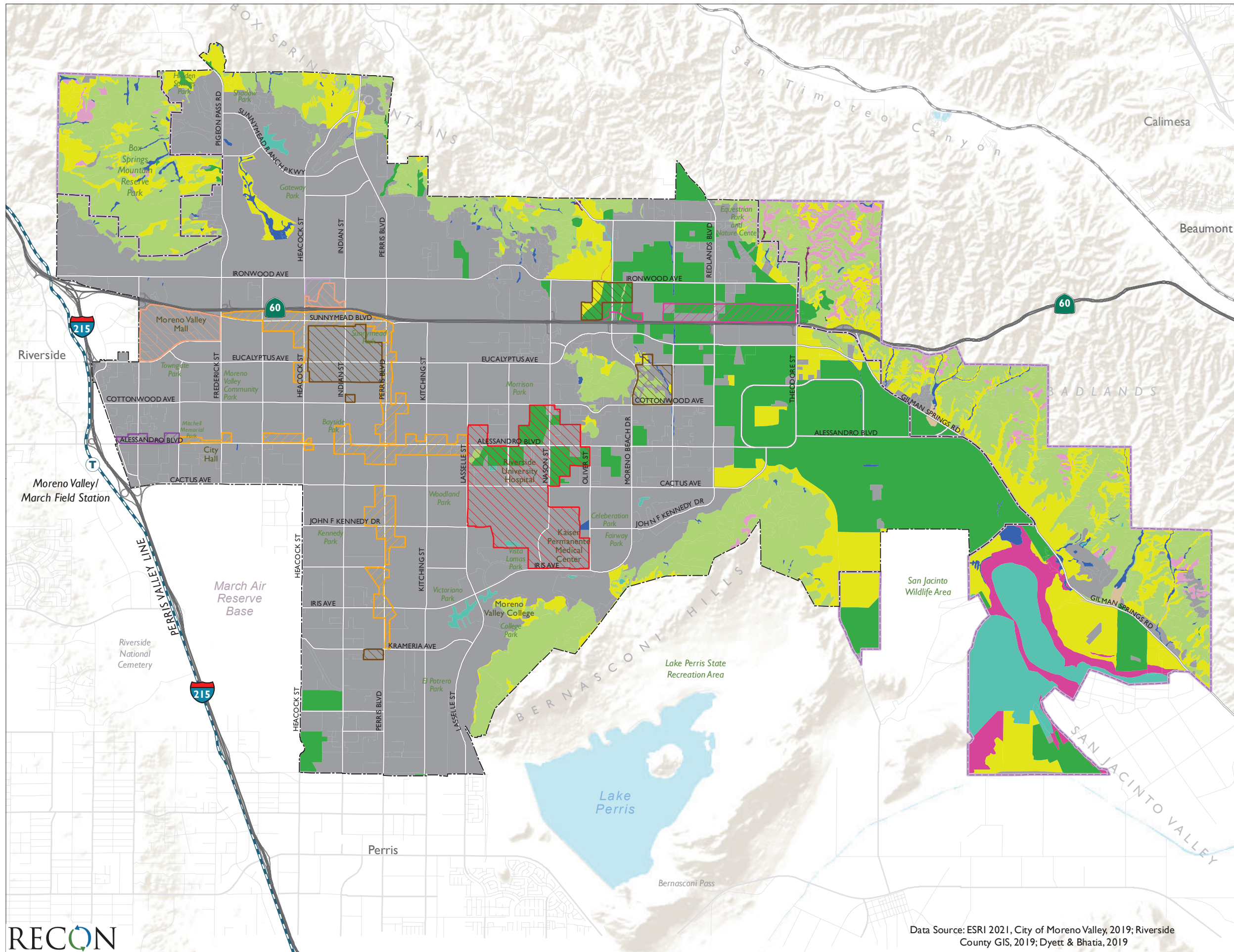
Would the project result in a substantial adverse impact, either directly or through habitat modifications, to any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the CDFW or USFWS?

Buildout of the project would have the potential to directly or indirectly impact candidate, sensitive, or special status species. Potential direct impacts would include removal of habitat through future development and redevelopment projects that support sensitive species.

The project has been designed to minimize impacts to sensitive species by primarily focusing on future development and redevelopment within the proposed Concept Areas. These areas consist of clusters of vacant and underutilized land within the city limit that would avoid the majority of sensitive habitat that is located within the eastern and southeastern portion of the Planning Area. Focusing development and redevelopment within these areas that consist primarily of developed and/or disturbed land would minimize adverse impacts to sensitive species. Table 4.4-4 shows the maximum approximate acreage of impact that would occur through development of the Concept Areas.

Category	Planning Area
Agricultural Land	1,359.1
Coastal Sage Scrub	93.1
Riparian Scrub, Woodland, Forest	6.3
Grassland	39.3
Water	8.3
Developed/Disturbed Land	1,761.2
TOTAL	3,267.4

Figure 4.4.6 presents the locations of the proposed Concept Areas in relation to mapped vegetation communities within the Planning Area as these areas represent the areas of land use change under the GPU. As shown in Figure 4.4-6, the largest amount of existing habitat that would be impacted within the Concept Areas includes agricultural land north of SR-60, as well as vacant parcels within the proposed Downtown Center. Impacts to developed/disturbed land would not be considered significant. Additionally, impacts to coastal sage scrub, agricultural land, and grassland would not be considered significant because they are located outside of the MSHCP Conserved Lands, Criteria Cells, and Public/Quasi Public Lands. However, future development within Riparian Scrub, Woodland, and Forest within the Concept Areas would have the potential to support sensitive species, and impacts would be considered significant.



- City of Moreno Valley
- Sphere of Influence
- General Plan Concept Areas**
- Mixed Use**
- Downtown Center
- Center Mixed Use
- Corridor Mixed Use
- Commercial/Office/Industrial**
- Highway Office/Commercial
- Business Park/Light Industrial
- Business Flex
- Residential**
- Residential Density Changes
- Vegetation Communities 2012**
- Agricultural Land
- Chaparral
- Coastal Sage Scrub
- Desert Scrub
- Developed/Disturbed Land
- Grassland
- Meadows and Marshes
- Playas and Vernal Pools
- Riparian Scrub, Woodland, Forest
- Riversidean Alluvial Fan Sage Scrub
- Water
- Woodland and Forests

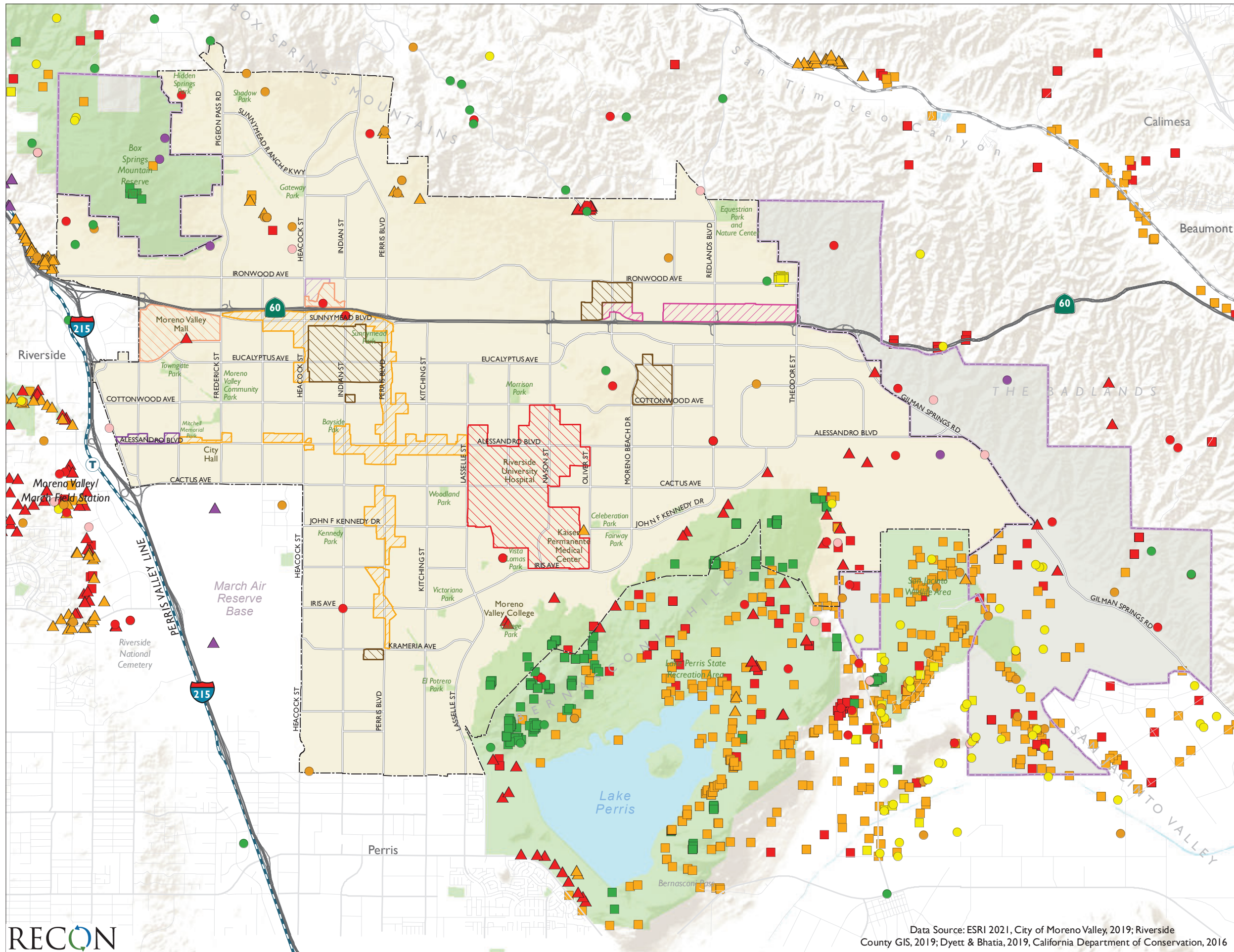


FIGURE 4.4-6
Vegetation Communities Impacts

Figure 4.4-7 presents the locations of the proposed Concept Areas in relation to recorded sensitive species observations within the Planning Area. Sensitive species observations are from 2019 USFWS and CNDDDB data sources (CDFW 2021) and observation dates vary, with some being very old and likely prior to development. As shown in Figure 4.4-7, the proposed Concept Areas have few sensitive species observations, with the most observations located within surrounding conserved areas with habitat value. As the observation points shown on Figure 4.4-7 are not intended to denote a specific species location and data accuracy can vary widely, the mapping is used to inform the likelihood of sensitive species within future development areas. While the proposed areas of land use change within the Concept Areas would largely avoid known occurrences of sensitive species by focusing development within areas that consist primarily of developed and/or disturbed land, future development may occur throughout the city and on vacant parcels that may support sensitive species. At a program level of analysis it cannot be known with certainty that impacts to sensitive species could be fully avoided, which would be considered significant.

Future development and redevelopment would also occur outside of the Concept Areas that would have the potential to impact a variety of habitat types throughout the Planning Area that may support sensitive species including raptors. Development near the edges of the Planning Area or within the SOI (Badlands) could result in development within Criteria Cells, which would require consistency with the MSHCP. Additionally, indirect impacts to sensitive plant or wildlife species could also result from excess noise, lighting, or runoff generated during construction of projects both within and outside the Concept Areas. Furthermore, project construction could result in impacts to nesting or migratory birds, including raptors (as protected under the MBTA) from the removal of mature trees and/or native vegetation within project areas during the typical bird breeding season (January 15–September 15) or excessive noise.

Future projects would be required to adhere to applicable federal, state and local regulations that provide protections for sensitive species as part of the discretionary approval process for individual development projects. Applicable regulations include the Western Riverside County MSHCP, the Stephens' Kangaroo Rat Fee, and the Migratory Bird Treaty Act, as detailed in Section 4.4.2. Critical habitat for San Bernardino kangaroo rat, San Jacinto Valley crowscale, and spreading navarretia are located outside, but adjacent to the Planning Area (see Figure 4.4-3), which would ensure avoidance of significant impacts. Compliance with applicable regulations at the time of future development proposal would minimize adverse impacts to sensitive species. The following goal, policies, and action within the 2021 GPU Open Space and Resource Conservation Element (OSRC) would serve to preserve biological resources within the Planning Area.



- City of Moreno Valley
- Sphere of Influence
- General Plan Concept Areas**
- Mixed Use**
 - Downtown Center
 - Center Mixed Use
 - Corridor Mixed Use
- Commercial/Office/Industrial**
 - Highway Office/Commercial
 - Business Park/Light Industrial
 - Business Flex
- Residential**
 - Residential Density Changes
- MSHCP Species Observations***
 - Birds
 - Reptiles
 - Mammals
 - Rare Plants
- USFWS Species Observations***
 - Birds
 - Mammals
 - Invertebrates
- CNDDDB Species Observations***
 - Birds
 - Reptiles
 - Amphibians
 - Invertebrates
 - Mammals
 - Plants
 - Riparian

*Species observation locations are estimates and locations may vary from the points shown. Mapping of sensitive species observations is intended to provide an overview of the location and type of species recorded in an area.



FIGURE 4.4-7
MSHCP Covered and USFWS
Species Observations

Goal

OSRC-1: Preserve, protect, and enhance natural resources, habitats, and watersheds in Moreno Valley and the surrounding area, promoting responsible management practices.

Policies

OSRC.1-8 Cooperate with federal, State, and local regulatory agencies as well as non-profit organizations to promote the responsible stewardship of natural resources and habitats within the planning area.

OSRC.1-9 Ensure that adverse impacts on sensitive biological resources, sensitive natural communities, sensitive habitat, and wetlands are avoided or mitigated to the greatest extent feasible as development takes place.

OSRC.1-10 In areas where development (including trails or other improvements) has the potential for adverse effects on special-status species, require project proponents to submit a study conducted by a qualified professional that identifies the presence or absence of special-status species at the proposed development site. If special-status species are determined to be present, require incorporation of appropriate mitigation measures as part of the proposed development prior to final approval.

OSRC.1-11 Require all development, including roads, proposed adjacent to riparian and other biologically sensitive habitats to provide adequate buffers to mitigate impacts to such areas.

OSRC.1-12 Limit to extent feasible the removal of natural vegetation in hillside areas when retaining natural habitat does not pose threats to public safety.

OSRC.1-13 Promote the use of conservation easements and preserves as means to conserve natural habitats and protect natural resources.

Actions

OSRC.1-D Continue to participate in the implementation of regional habitat conservation and restoration programs, including the Western Riverside County Multiple Species Habitat Conservation Plan and the Stephens' Kangaroo Rat Habitat Conservation Plan.

These policies would maintain, protect, and preserve biologically significant habitats where practical, including the San Jacinto Wildlife Area, riparian areas, habitats of rare and endangered species, and other areas of natural significance. Adherence to these policies during the discretionary review of future development projects consistent with the GPU would serve to minimize impacts to sensitive species. Although numerous regulations including implementation of the MSHCP and GPU policies would minimize impacts to

sensitive species; at a program level of review, it cannot be ensured that all impacts could be reduced to less than significant. Impacts would be considered potentially significant.

4.4.5.2 Topic 2: Sensitive Riparian Habitats

Would the project result in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?

As shown in Table 4.4-3 above, proposed development within the Concept Areas would have the potential to impact approximately 6.34 acres of riparian scrub, woodland, forest habitat, resulting in a significant impact. Additionally, development and redevelopment would also occur outside of the Concept Areas that would have the potential to impact a variety of riparian habitat types throughout the Planning Area. Since the biological resource mapping contained in this document is based on secondary source information rather than site-specific field surveys, potential impacts would need to be refined for individual projects.

As detailed in Section 4.4.2, state regulations regulate impacts to wetland resources, including some riparian habitats. Future site-specific discretionary review will be required for projects consistent with the GPU. This discretionary review will include site specific biological resource analysis and compliance with applicable regulations, plans and General Plan policies. Although site-specific analysis and mitigation at the project level would likely result in mitigation of impacts to sensitive riparian habitats; at a program level of review, it is not possible to ensure impacts of every future project would be fully mitigated. Therefore, impacts to sensitive riparian habitats would be significant.

4.4.5.3 Topic 3: Jurisdictional Wetlands and Waters

Would the project result in substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

As shown in Table 4.4-3 above, proposed development within the Concept Areas would have the potential to impact a maximum approximately 6.3 acres of riparian scrub, woodland, forest habitat, which may qualify as wetlands or other jurisdictional resources. Additionally, development and redevelopment would also occur outside of the Concept Areas that would have the potential to impact a variety of habitat types throughout the Planning Area, including areas that may be determined to be wetlands or other jurisdictional resources through future site-specific environmental review. Since the biological resource mapping contained in this document is based on secondary source information rather than site-specific field surveys, potential impacts would need to be refined for individual projects. If warranted, a formal wetland delineation would be required in conjunction with future project applications to identify the precise boundaries of jurisdictional resources and determine the extent of any potential impacts.

As detailed in Section 4.4.2, state and federal regulations regulate impacts to wetland resources. Future site-specific discretionary review will be required for projects consistent

with the GPU. This discretionary review will include site specific biological resource analysis and compliance with applicable regulations, plans and General Plan policies. The proposed land use plan focusing development within the interior of the city combined with the regulatory framework that would apply to future development proposals is anticipated to reduce potential impacts to wetlands; however, at a program level of review, it is not possible to ensure wetland impacts of future projects would be fully mitigated. Therefore, impacts to wetland habitats would be significant.

4.4.5.4 Topic 4: Wildlife Corridors

Would the project 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?

The Planning Area is located within the MSHCP. The MSHCP identifies cores for habitat conservation and linkages for wildlife movement. The Planning Area is partially located within Subunits 1, 2, 3, and 4 of the MSHCP, Reche Canyon/Badlands Area Plan. As described in Section 4.4.1.4 above, the majority of the Planning Area is already developed. The northern edges of the city around the Box Springs Mountains, western portions of the SOI in the Badlands and areas around the San Jacinto Wildlife Preserve and Bernasconi Hills make up the key linkages identified in the Reche Canyon/Badlands Area Plan. These areas support native habitats that allow for wildlife movement within and between these designated core biological resource areas.

The proposed GPU does not propose any land use changes within these key wildlife linkages identified in the MSHCP. A comprehensive analysis of the proposed MSHCP linkages was provided in the July 2006 Moreno Valley General Plan Final EIR. As no land use changes are proposed within core linkage areas compared to the existing adopted plan, the conclusions from the 2006 Final EIR remain valid and are hereby incorporated by reference. The 2006 Final EIR found that impacts to core linkages identified in the MSHCP would be less than significant based on compliance with the MSHCP for projects within Criteria Cell areas (Moreno Valley 2006b). As future development within the Planning Area would be required to undergo a site-specific environmental review including compliance with the MSHCP, the conservation goals for wildlife corridors and linkages identified in the MSHCP would be maintained. Therefore, the project would not interfere substantially with wildlife movement within MSHCP linkages, and impacts would be less than significant.

4.4.5.5 Topic 5: Local Ordinances

Would the project conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?

All future development, including areas outside of the urban environment within sensitive habitat areas would be required to undergo a site-specific environmental review that would include a consistency review with local regulations, including the Heritage Tree ordinance (Title 9, Chapter 9.17.030, Section G). The discretionary review for future development

consistent with the GPU would additionally require review for consistency with General Plan policies including the GPU Open Space and Resource Conservation Element which includes goals and policy supporting preservation of biological resources. Site specific environmental review for individual development projects will ensure adherence to applicable local policies and ordinances. Therefore, impacts related to conflicts with local policies and ordinances intended to protect biological resources would be less than significant.

4.4.5.6 Topic 6: Habitat Conservation Plan

Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

a. Western Riverside County Multiple Species Habitat Conservation Plan

As described in Section 4.4.2.3.a above, the City is a signatory to the MSHCP, which is a comprehensive multi-jurisdictional habitat conservation plan focusing on the conservation of species and their associated habitats. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and wildlife species, as well as mitigation for impacts to sensitive species. The project has been designed to primarily focus future development and redevelopment within Concept Areas that would avoid MSHCP Conserved Lands, Criteria Cells, and Public/Quasi Public Lands. Focusing development and redevelopment within these areas that consist primarily of developed and/or disturbed land would minimize conflicts with the MSHCP. However, future development and redevelopment would also occur outside of the Concept Areas, which may include future projects within MSHCP Conserved Lands, Criteria Cells, and Public/Quasi Public Lands. Such future development would be required to undergo project-specific environmental and design review to determine whether the project would be consistent with the MSHCP. Additionally, the Open Space and Resource Conservation Element of the GPU includes policies that would maintain, protect, and preserve biologically significant habitats where practical, which would serve to maintain consistency with the MSHCP.

b. Stephens' Kangaroo Rat Habitat Conservation Plan

As described in Section 4.4.2.3. above, a small portion of the Stephens' Kangaroo Rat Habitat Conservation Plan's San Jacinto-Lake Perris core reserve area is located within the south portion of the Planning Area (see Figure 4.4-4). However, the GPU would maintain the existing land use designation of Park/Open Space which would serve to maintain this area for wildlife use. No conflict with the Stephens' Kangaroo Rat Habitat Conservation Plan would occur. Impacts would be less than significant.

c. San Jacinto Wildlife Area

A small portion of the San Jacinto Wildlife Area is located within the southeast corner of the Planning Area (see Figure 4.4-5). However, the GPU would maintain the existing land use

designation of Park/Open Space which would serve to maintain this area for wildlife use. No conflict with the goals for this wildlife area would occur. Impacts would be less than significant.

4.4.6 Cumulative Analysis

The geographic scope for cumulative impacts related to biological resources would be the Western Riverside County MSHCP, which is a comprehensive multi-jurisdictional habitat conservation plan focusing on the conservation of species and their associated habitats. The Western Riverside County MSHCP has an overall goal of maintaining biological and ecological diversity within a rapidly urbanizing region. All future development within Western Riverside County would undergo project specific environmental review that would evaluate potential impacts to biological resources and determine whether the project would be consistent with the Western Riverside County MSHCP. The proposed land use changes associated with the GPU are consistent with the conservation goals for the MSHCP as development is focused within the existing urban areas of the city, maintaining existing conservation or low-density land use designations within areas bordering or within MSHCP Criteria Cells. Future site-specific environmental review and applicable regulatory requirements including but not limited to the MSHCP, GPU policies, and state and federal wetland regulations would ensure cumulative impacts would be less than significant.

4.4.7 Significance of Impacts before Mitigation

4.4.7.1 Topic 1: Sensitive Species

Buildout of the GPU would have the potential to directly or indirectly impact candidate, sensitive, or special status species. Potential direct impacts would include removal of habitat through future development and redevelopment projects that support sensitive species. Future site-specific environmental review for development consistent with the GPU would ensure appropriate biological surveys are completed and would require adherence to applicable regulations and policies such as the MSHCP and policies in the Open Space and Resource Conservation Element of the GPU. While these regulations are likely to ensure adverse impacts to sensitive species are reduced at the project level, at a program level of analysis it is not possible to ensure that every impact could be fully mitigated. Therefore, the project would have the potential to result in a substantial adverse effect on candidate, sensitive, or special status species, and impacts would be significant.

4.4.7.2 Topic 2: Sensitive Riparian Habitats

Buildout of the GPU has the potential to impact a variety of riparian habitat types throughout the Planning Area. Future site-specific environmental review for development consistent with the GPU would ensure appropriate biological surveys are completed and would require adherence to applicable regulations and policies such as the MSHCP, state and federal wetland regulations, and policies in the Open Space and Resource Conservation Element of the GPU. While these regulations are likely to ensure adverse impacts to sensitive riparian habitats are reduced at the project level, at a program level of analysis it is not

possible to ensure that every impact could be fully mitigated. Therefore, the project would have the potential to result in a substantial adverse effect on sensitive riparian habitats, and impacts would be significant.

4.4.7.3 Topic 3: Jurisdictional Wetlands and Waters

Buildout of the GPU has the potential to adversely affect jurisdictional wetlands and waters. While subsequent development and redevelopment projects would be required to evaluate potential impacts on wetlands through project-level CEQA documentation and would be required to obtain applicable state and federal wetland permits, at a program level of analysis it is not possible to ensure that every impact would be fully mitigated. Therefore, the project would have the potential to result in a substantial adverse effect on wetlands, and impacts would be significant.

4.4.7.4 Topic 4: Wildlife Corridors

The GPU land use changes are focused within the center of the city and existing land uses within and adjacent to key linkage areas in the MSHCP are maintained, ensuring the overall conservation goals and linkages needed to maintain wildlife movement would be maintained. As future development within the Planning Area would be required to undergo a site-specific environmental review including compliance with the MSHCP, the conservation goals for wildlife corridors and linkages identified in the MSHCP would be maintained. The GPU would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, and impacts would be less than significant.

4.4.7.5 Topic 5: Local Ordinances

Future projects would be required to comply with GPU policies that support protection of biologically significant habitats where practical, including the San Jacinto Wildlife Area, riparian areas, habitats of rare and endangered species, and other areas of natural significance. During future site-specific discretionary reviews, individual projects will be required to demonstrate consistency with applicable local ordinances protecting biological resources. Therefore, the project would not conflict with any local policies or ordinances protecting biological resources, and impacts would be less than significant.

4.4.7.6 Topic 6: Habitat Conservation Plan

The project has been designed to primarily focus on future development and redevelopment within Concept Areas and along Community Corridors that would avoid MSHCP Conserved Lands, Criteria Cells, and Public/Quasi Public Lands. While no land use changes are proposed within MSHCP Conserved Lands, Criteria Cells, Public/Quasi Public Lands, or Stephens' Kangaroo Rat Habitat Conservation Plan areas, the existing plan allows for limited development within these areas. However, any development within MSHCP Criteria Cells or other conserved status lands would require a discretionary review including a site-specific biological analysis including demonstrating compliance with MSHCP conservation goals.

Project-specific environmental review and required compliance with the MSHCP and other applicable plans would ensure consistency with applicable habitat conservation plans. Impacts would be less than significant.

4.4.8 Mitigation

Mitigation measure BIO-1 would require a site-specific biology survey for sites with the potential for sensitive biological resources to be present. This survey would occur at the time future projects are proposed, based on site-specific conditions at the time of application. The measures provide a framework for future development consistent with the General Plan to reduce potentially significant impacts to the extent feasible.

4.4.8.1 Topic 1: Sensitive Species

BIO-1: Applications for future development of vacant properties (and portions thereof), wherein the Director of Community Development or his or her designee has determined a potential for impacts to sensitive biological resources, shall be required to prepare a site-specific general biological resources survey to identify the presence of any sensitive biological resources, including any sensitive plant or wildlife species. The report shall identify the need for focused presence/absence surveys and identify the presence of state or federal regulated wetlands or waters. If potentially significant impacts to sensitive biological resources, including sensitive species and/or wetlands are identified, the report shall also recommend appropriate mitigation to reduce the impacts to below a level of significance.

BIO-2: Applications for future development, wherein the Director of Community Development or his or her designee has determined a potential for impacts to mature trees and/or native vegetation suitable for nesting birds, shall be required to restrict removal of sensitive habitat and vegetation to outside the breeding seasons of any sensitive species identified within adjacent properties (typical bird breeding season is February 1–September 1, as early as January 1 for some raptors). If vegetation clearing must begin during the breeding season, a qualified biologist shall provide recommendations to avoid impacts to nesting birds which typically includes a pre-construction survey within 3 days of the start of construction to determine the presence of active nests.

If active nests are found, avoidance measures shall be implemented to ensure protection of the nesting birds. Avoidance measures may include a no-activity buffer zone, typically 300 feet from the area of disturbance or 500 feet for raptors, established at the discretion of the qualified biologist in consultation with the City. If activity buffer zones are not feasible, temporary noise barriers may be installed to attenuate construction noise. Noise wall height and adequacy shall be supported by a noise analysis to determine the anticipated construction noise levels with attenuation measures as recommended by the biologist and approved by the City. Periodic noise monitoring shall be

conducted during construction to ensure noise attenuation standards are met. Accepted noise levels are species dependent and existing ambient noise levels can play a factor in establishing baseline acceptable noise.

4.4.8.2 Topic 2: Sensitive Riparian Habitats

Refer to mitigation measure BIO-1.

4.4.8.3 Topic 3: Jurisdictional Wetlands and Waters

Refer to mitigation measure BIO-1.

4.4.8.4 Topic 4: Wildlife Corridors

Impacts would be less than significant. No mitigation is required.

4.4.8.5 Topic 5: Local Ordinances

Impacts would be less than significant. No mitigation is required.

4.4.8.6 Topic 6: Habitat Conservation Plan

Impacts would be less than significant. No mitigation is required.

4.4.9 Significance of Impacts after Mitigation

4.4.9.1 Topic 1: Sensitive Species

Implementation of mitigation measures BIO-1 and BIO-2 would reduce impacts on sensitive and special status species. However, no specific projects have been identified at this time, and it is not possible to ensure that every future project could fully mitigate potentially significant impacts despite the applicable regulatory framework. Therefore, impacts to candidate, sensitive, or special status species would remain significant and unavoidable at this program level of review.

4.4.9.2 Topic 2: Sensitive Riparian Habitats

Implementation of the mitigation measures described above would reduce impacts on riparian habitats. However, no specific projects have been identified at this time, and it is not possible to ensure that every future project could fully mitigate potentially significant impacts despite the applicable regulatory framework. Therefore, impacts to riparian habitats would remain significant and unavoidable at this program level of review.

4.4.9.3 Topic 3: Jurisdictional Wetlands and Waters

Implementation of the mitigation measures described above would reduce impacts on wetlands. However, no specific projects have been identified at this time, and it is not possible to ensure that every future project could fully mitigate potentially significant impacts to wetlands despite the applicable regulatory framework. Therefore, impacts to jurisdictional wetlands and waters would remain significant and unavoidable at this program level of review.

4.4.9.4 Topic 4: Wildlife Corridors

Impacts would be less than significant. No mitigation is required.

4.4.9.5 Topic 5: Local Ordinances

Impacts would be less than significant. No mitigation is required.

4.4.9.6 Topic 6: Habitat Conservation Plan

Impacts would be less than significant. No mitigation is required.