2.4 Biological Resources

This section of the EIR describes the existing biological resources, including vegetation communities, sensitive plants and wildlife, and wildlife corridors in the unincorporated County and analyzes the potential physical environmental impacts resulting from land uses and development under the proposed County General Plan Update. The majority of information in this section was provided by the County of San Diego General Plan, Conservation and Open Space Element Background Report (DPLU 2007b) and Guidelines for Determining Significance, Biological Resources (DPLU 2008d).

A summary of the biological resources impacts identified in Section 2.4.3 is provided below.

Biological Resources Summary of Impacts

Issue Number	Issue Topic	Project Direct Impact	Project Cumulative Impact	Impact After Mitigation
1	Special Status Species	Potentially Significant	Potentially Significant	Significant and Unavoidable
2	Riparian Habitat and Other Sensitive Natural Communities	Potentially Significant	Potentially Significant	Significant and Unavoidable
3	Federally Protected Wetlands	Potentially Significant	Less Than Significant	Less Than Significant
4	Wildlife Movement Corridors	Potentially Significant	Potentially Significant	Significant and Unavoidable
5	Local Policies and Ordinances	Less Than Significant	Less Than Significant	Less Than Significant
6	Habitat Conservation Plans and Natural Community Conservation Plans	Less Than Significant	Less Than Significant	Less Than Significant

2.4.1 Existing Conditions

2.4.1.1 General Biological Setting

San Diego County is recognized as one of the most important biological areas in the U.S. The diversity of species found in the unincorporated County can be attributed to the variety of vegetation and habitats associated with the region's range of micro-climates, topography, soils, and other natural features. The unincorporated lands comprise the largest geographical area within the County boundary with natural features that include lagoons, foothills, mountain ranges, and deserts.

The physical and climatic conditions found in the unincorporated County provide for a wide variety of habitats and biological communities. Biological communities are associations of plants, animals, fungi, and microbes that can occur separately or be intermixed. Because each biological community has different characteristics, they often support unique assemblages of species.

The County's unique attributes have resulted in a relatively large number of endemic species in the area (e.g., species that are only found in a limited geographic location). For example, 26

plant species in the County are found nowhere else in the world. As a result of the limited distribution of many of the County's species, combined with habitat loss from urban, rural, and agricultural development, the County is home to an exceptional number of rare, threatened, endangered, or otherwise sensitive species. Invasive plant and animal species have the potential to disrupt native habitat regeneration and pose a threat to conservation of native habitat and endemic species.

2.4.1.2 Vegetation Communities

Habitats are associations of communities composed of plants, animals, insect species, and biotic elements such as fungi, bacteria, and other microbes. Although they would have the potential to occur adjacent to or even intermixed within one another, the habitats have differing characteristics that support unique assemblages of plants and animals. Habitats are generally referred to and named by the vegetation community, which provides structure to the above-ground portions of the habitat.

The multiple vegetation communities within the County have been aggregated down to 20 vegetation types, which are described below (Oberbauer 2005). Figure 2.4-1 shows the distribution of these communities throughout the County.

Chaparral

Chaparral is one of the most widespread vegetation communities in the unincorporated County, with many distinct types. The chaparral type at any one location is determined by the dominant soils, elevation, rainfall, and other conditions. While various forms of chaparral have been lost to agriculture and urbanization, chaparral still occurs throughout the mesas and slopes of the coastal lowlands. Chaparral is generally composed of hard-stemmed shrubs with leathery-leaves that avoid desiccation during the dry season. For example, cismontane chaparrals are characterized by large shrub species such as manzanita (*Arctostaphylos* spp.), chamise (*Adenostoma fasciculatum*), scrub oak (*Quercus dumosa* or *Q. berberidifolia*), mountain mahogany (*Cercocarpus betuloides*), and wild lilac (*Ceanothus* spp.). Other types of chaparral included in this classification are southern mixed chaparral, northern mixed chaparral, chamise chaparral, red shank chaparral, montane chaparral, scrub oak chaparral, and maritime chaparral. A total of approximately 784,500 acres of chaparral occurs in the County.

Chaparral is home to a wide variety of birds. The spotted towhee (*Pipilo maculates*), wrentit (*Timaliidae spp.*), Bell's sage sparrow (*Amphispiza belli*), and California thrasher (*Toxostoma redivivum*) are representative birds of the chaparral community. A number of reptiles also inhabit this community, including the western whiptail (*Cnemidophorus tigris)*, granite spiny lizard (*Sceloporus orcutti*), San Diego horned lizard (*Phrynosoma coronatum*), and Pacific rattlesnake (*Crotalus oreganus helleri)*. In rocky, boulder-strewn terrain on the eastern side of the mountains, the barefoot gecko (*Coleonyx switaki*) and chuckwalla (*Sauromalus ater*) live in chaparral. Mammals include a number of species of bats, deer mice (*Peromyscus maniculatus*), pocket mice (*Chaetodipus fallax*), the desert cottontail rabbit (*Sylvilagus audubonii*), coyote (*Canis latrans*), bobcat (*Lynx rufus* spp.), mule deer (*Odocoileus hemionus*), and mountain lion (*Puma concolor* spp.).

Coastal Sage Scrub

Coastal sage scrub consists predominantly of low growing, aromatic, and generally soft-leaved shrubs. The predominant type of coastal sage scrub within the County is Diegan coastal sage scrub. The representative species in this habitat type are California sage (*Artemisia californica*), flat-topped buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), saw-tooth goldenbush (*Hazardia squarrosa*), laurel sumac (*Malosma laurina*), bladderpod (*Isomeria arborea*), and California encelia (*Encelia californica*). A total of approximately 180,500 acres of coastal sage scrub occurs in the County.

At least 7,700 acres of the coastal sage scrub described above may be categorized as other types of scrubs based on field surveys. Riversidean sage scrub has similar species as Diegan coastal sage scrub, but occurs more inland in the northern part of the County and on much drier sites. Maritime succulent scrub occurs in the Otay region of the County and is a mix of cacti (mostly *Opuntia* spp.), several of the shrub species listed above, San Diego bursage (*Ambrosia chenopodiifolia*), and cliff spurge (*Euphorbia misera*). It should be noted that desert scrubs are not included in the coastal sage scrub category but are described separately below.

The California gnatcatcher (*Polioptila californica californica*), California towhee (*Pipilo crissalis eremophilus*), coastal cactus wren (*Campylorhynchus brunneicapillus*), rufous-crowned sparrow (*Aimophila ruficeps canescens*), and California thrasher are representative birds of the coastal sage scrub communities. The orange-throated whiptail (*Aspidoscelis hyperythra*), San Diego horned lizard, banded gecko (*Coleonyx variegatus abbotti)*, black-tailed jackrabbit (*Lepus californicus bennettii*), desert cottontail, and deer mouse also use coastal sage scrub habitats, and packrats (*Neotoma* spp.) often form middens (wooden nests). Coyotes are common predators in this community and mule deer are occasionally seen. Several species of large scarab beetles (*Pleocoma* spp.), referred to as rain beetles, appear with the first soaking rain during late fall in coastal sage scrub and chaparral of the foothill and canyon regions of the unincorporated County and adjacent Baja, California.

Coniferous Forests

Coniferous forests generally occur above an elevation of 3,500 feet and extend across the major mountain ranges of the Palomar, Volcan, Hotsprings, Cuyamaca, and Laguna. Conifers generally grow in areas that receive more than 20 inches of precipitation each year, including some snow. Coniferous forests are identified by the presence of one or a number of species of pines including Coulter (*Pinus coulteri*), Jeffrey (*P. jeffreyi*), Pacific ponderosa (*P. ponderosa*), and sugar (*P. lambertiana*). The red-barked incense cedar (*Calocedrus decurrens*) and the Christmas tree-like white fir (*Abies concolor*), commonly mixed with the deciduous California black oak (*Quercus kelloggii*), canyon live oak (*Q. chrysolepis*), and coast live oak (*Q. agrifolia*), also characterize coniferous forests in the County. This habitat is very important for wildlife. Common birds that inhabit coniferous forests include Stellar's jay (*Cyanocitta stelleri*), American robin (*Turdus migratorius*), western bluebird (*Sialia mexicana)*, black-headed grosbeak (*Pheucticus melanocephalus*), mountain chickadee (*Poecile gambeli)*, plain titmouse (*Baeolophus* spp.), and a variety of flycatchers. It is also important for mammals, including southern mule deer, bobcat, bat, and rodent species. Reptiles in coniferous forest include ring-necked snake (*Diadophis punctatus)*, mountain swift lizards, and mountain king snake (*Lampropeltis zonata*). The brightly colored large-blotched salamander (*Ensatina klauberi)* also occurs within this habitat. A total of approximately 73,800 acres of coniferous forest occurs in the County.

Desert Chaparral

Desert chaparral consists of semi-desert chaparral and upper Sonoran ceanothus chaparral. The semi-desert chaparral is a transition area between desert and chaparral and occurs in areas such as Jacumba in the southeastern portion of the County. Upper Sonoran ceanothus chaparral occurs in the Sonoran desert, which is partially within San Diego County, just east of Borrego Springs, and is dominated by shrubs and trees (*Ceanothus* spp.). Semi-desert chaparral is composed of several typical chaparral species, including chamise, but also a number of shrub species that are well-adapted to the harsh desert climate with very hot, dry summers, occasional late summer rainfall, and cool to cold winters with relatively low rainfall. Shrubs include desert apricot (*Prunus fremontii*), cupleaf white lilac (*Ceanothus greggii* var. *perplexans*), and turpentine-broom (*Thamnosa montana*). A total of approximately 88,000 acres of desert chaparral occurs in the County.

Desert Dunes

Small areas of active, stabilized, and partly stabilized desert dunes occur in the Borrego Valley in the Desert Subregion. Desert dunes include active desert dunes, stabilized and partially stabilized desert sand fields, and stabilized alkaline dunes. Active desert dunes are barren expanses of actively moving sand whose size and shape are determined by abiotic site factors rather than stabilizing vegetation. Stabilized and partially stabilized desert sand fields are desert sand accumulations that are not obviously worked into dune landforms. Vegetation varies from scant cover of widely scattered shrubs and herbs to nearly closed shrub canopies. Stabilized alkaline dunes are dunes in the desert which are stabilized or partially stabilized by evergreen and/or deciduous shrubs, scattered low annuals, and perennial grasses. Desert dunes support a series of unique plants and are found predominantly east of Borrego Springs. Plants that grow on desert dune habitats are adapted to conditions of shifting sand. They have long root systems to tap into the moisture from seasonal rainfall that lies deep within the dunes. The flat-tailed horned lizard (*Phrynosoma mcallii*) is one sensitive species that occurs within the sand dune habitats, as well as several species of milk vetch (*Astragalus* spp.) plants. A total of approximately 889 acres of desert dunes occurs in the eastern portion of the County.

Desert Scrub

Desert scrub is one of the most widespread vegetation communities east of the mountains. It is generally dominated by the creosote bush (*Larrea tridentata*) and may often be categorized as Sonoran creosote bush scrub or Mojave creosote bush scrub. Other components of this community include the desert agave (*Agave deserti*), ocotillo (*Fouqueria splendens*), burro bush (*Ambrosia dumosa*), and a variety of cacti including the teddy-bear cholla (*Opuntia bigelovii*). Annual wildflowers in this habitat can carpet the ground during the spring after winter rainfall, and specific wildflower species bloom following the summer rainy period. Cacti are also noteworthy flowering plants within this community. About 440,800 acres of desert scrub (including creosote bush scrub) occurs in the County.

Diverse wildlife species inhabit desert scrub communities including the kit fox (*Vulpes macrotis)*, coyote, several species of ground squirrel (*Spermophilus* spp.), kangaroo rat (*Dipodomys* spp.), and pocket mouse (*Perognathus* spp.) species. The desert scrub community is also home to a variety of reptiles including the sidewinder (*Crotalus cerastes)*, zebra-tailed lizard (*Callisaurus draconoides* spp.), horned lizards (*Phrynosoma* spp.), and desert iguana (*Dipsosaurus*

dorsalis). Tarantulas (*Aphonopelma* spp.), moths (*Sphingidae* spp.), locusts (*Caelifera* spp.), harvester ants (*Pogonomyrmex barbatus* spp.), and beetles (*Trigonoscuta* spp.) are some of the invertebrate species that can be found in the desert scrub.

Dry Wash Woodlands

The deserts of the unincorporated County include an interlaced network of small washes and drainage courses. These drainage courses support specialized vegetation that can capitalize on underground water which is close to the surface. Dry wash woodland is low-growing, loosely formed woodland with a number of distinctive plants. Dominant species and indicators of this habitat include desert-lavender (*Hyptis emoryi*), desert ironwood (*Olneya tesota*), catclaw (*Acacia greggii*), mesquite (*Prosopis* spp.), smoke tree (*Psorothamnus spinosa*), and desert willow (*Chilopsis linearis* ssp. *arcuata*). Dry wash woodlands total approximately 33,800 acres within the County.

Within the desert environment, the dry wash woodland habitat is where most of the bird life nests. Common bird species in this woodland include the verdin (*Auriparus flaviceps)*, black-throated sparrow (*Amphispiza bilineata)*, and phainopepla (*Phainopepla nitens)*. In areas where mesquite is extensive, Gambel's quail (*Callipepla gambelii)* are also found. Dry wash channels and flow courses fill with water during a heavy rainfall event usually associated with summer thunderstorms. This water flows rapidly in flash floods that cause erosion in these streams and flow channels. Strong flash floods would have the potential to uproot vegetation and scour the bottom of the stream channels. However, as a result of these scouring events, there would be new growth of shrubs and cactus seedlings. A number of species are specifically adapted to the conditions following storm scouring and will not germinate unless the seed coat has been abraded by transport in water through a slurry of sand and gravel.

Grasslands

Grasslands in the unincorporated County can be divided into two types: one that is composed mostly of native perennial grasses and herbs and one of non-native annual grass species that originated in the Mediterranean region. Due to urbanization and agricultural activities, non-native annual grasslands have predominantly replaced native grasslands and shrublands, including coastal sage scrub and chaparral. However, as development progresses, both types are becoming limited.

Native (perennial) grassland plants include several species of bunch grasses (*Nassella* spp.), blue-eyed grass (*Sisyrinchium bellum*), checker-bloom (*Sidalcea malvaeflora* spp. *sparsifolia*), wild hyacinth (*Dichelostemma pulchra*), and golden stars (*Bloomeria crocea* and *Muilla clevelandii*).

Non-native grassland is a mixture of annual grasses and broad-leaved, herbaceous species. Characteristic non-native grassland species include foxtail chess (*Bromus madritensis* ssp. *rubens*), ripgut grass (*Bromus diandrus*), wild oats (*Avena* spp.), fescues (*Vulpia* spp.), red-stem filaree (*Erodium cicutarium*), mustards (*Brassica* spp.), lupines (*Lupinus* spp.) and goldfields (*Lasthenia* spp.), among others.

Both native and non-native grasslands are important for a variety of wildlife including burrowing owl (*Athene cunicularia*), grasshopper sparrows (*Ammodramus savannarum)*, horned larks (*Eremophila alpestris)*, meadowlarks (*Sturnella* spp.), and small mammals that include the

endangered Stephens' kangaroo rat (*Dipodomys stephensi)*. Grasslands are especially important as habitat for reptiles and small mammals and as foraging habitat for raptors, which feed on small mammals. Grasslands account for approximately 124,000 acres of area within the County.

Marshes

Marshes are very important for wildlife, and have been extensively reduced by channelization, dredging, and development. Most of the marshes in the unincorporated County are freshwater, with alkali marsh in areas where the soil is more alkaline, and saltmarsh directly along the coast. Freshwater marshes are found along rivers and their tributaries, around the edges of water bodies, and also near natural springs and ponded areas within major stream channels. Rushes (*Juncus* spp.), bulrushes (*Scirpus* spp.) and sedges (*Carex* spp. and *Scirpus* spp.) are common, and cattails (*Typha* spp.) are often found in the shallower water near the margins of the freshwater marsh. Arroyo willow (*Salix lasiolepis*), black willow (S. *gooddingii*) and red willow (S. *lasiandra*) are also often found in freshwater marshes. Open water stands in depressions or natural springs, and duckweeds (Family: *Limnaceae*) often form floating mats. Plant species that typify alkali marsh are yerba mansa (*Anemopsis californica*), alkali heath (*Frankenia salina*), and pickleweed (*Salicornia* spp.). Mulefat is found around the margins of freshwater or alkali marsh.

Freshwater marshes are home to a number of bird species including the common yellowthroat (*Geothlypis trichas)*, red-winged (*Agelaius phoeniceus)* and tricolor blackbirds (*Agelaius tricolor)*, and several species of egrets (*Egretta* spp.) and rails (*Gruiformes* spp.). Many migratory shorebirds also use freshwater and alkali marshes. Northern harriers hunt over marshes and grasslands and also nest within them. Freshwater marshes in their natural state have also served as habitat for native frog species; however, the bullfrogs introduced from eastern North America have severely reduced the native amphibian populations in southern California because they are voracious predators and can competitively exclude the smaller natives. A total of approximately 2,900 acres of marshes occur within the County.

Meadows and Seeps

This classification includes montane meadows, alkali meadows and seeps, freshwater seeps, and vernal pools. Naturally occurring meadows exist primarily in the mountains and foothills where they form in areas of fine silty soils with groundwater close to the surface. Foothill valleys, such as Campo Valley, McCain Valley, and the area surrounding Lake Henshaw, support extensive meadows. Laguna Meadow in the Laguna Mountains and the area surrounding Cuyamaca Lake in the Cuyamaca Mountains are examples of montane meadows. Montane meadows are dominated by bunchgrasses (*Agropyron* spp.), sedges (*Carex* spp.), and spike-sedges (*Eleocharis* spp.). During spring, they are somewhat boggy and moist, and they remain green long after the herbaceous vegetation of their surroundings has dried. Many of the plants and animals of the deserts rely on water from mountain runoff, and from springs, seeps, meadows, marshes, and other wet areas scattered on the desert floor and the desert slopes of the mountains. Dense growths of vegetation generally surround these wet areas and the temperature is usually cooler than the surrounding arid lands, thus providing wildlife some respite from the dry desert summer heat.

Vernal pools are often found in grasslands and meadows; they sit above clay or hardpan subsoils. Vernal pools fill during winter and spring rains, and dry during the early summer,

which has caused unique assemblages of plant and animal life to have evolved with this wetting and drying regime. The plants and animals have adapted in a variety of ways. The plants germinate when the pools are full, and set seed as the pools dry. Fairy shrimp (*Branchinecta* spp.) hatch from cysts hardened to protect the animal during the dry season, and complete their life cycles within a couple of weeks. Other pond animals, such as tadpoles and very small crustaceans, hatch when the pools are full. In their resting states (cysts, eggs, and seeds), plant and animal species can remain dormant in the soils for years until conditions are right to support the completion of their life cycles. A total of approximately 13,000 acres of meadows and seeps, including vernal pools, occurs in the County.

Oak Forest

Oak forest represents a community that is found near or blending in with other forest vegetation. Meant to describe a true forest of substantial trees growing in a manner that produces a closed canopy of tree cover, oak forest is characterized by coast live oak (*Quercus agrifolia*), California black oak (*Q. kelloggii*), and canyon live oak. In many locations, these species grow into massive trees that are hundreds of years old. This habitat is often found adjacent to and intermixes with coniferous forest and oak woodland vegetation. The primary locations for oak forest are the northern end of Palomar Mountain, the slopes and canyons on Hot Springs Mountain, and parts of the Cuyamaca and Laguna Mountain ranges. Animal species found in oak forest include acorn woodpeckers (*Melanerpes formicivorus)*, western bluebirds, plain titmouse, and mountain chickadees. Western gray squirrels (*Sciurus griseus*) and Merriam's chipmunks (*Tamias merriami)* are also known to inhabit these forests, as well as southern mule deer, bobcats, coyotes, and mountain lions. Oak forest totals approximately 11,500 acres within the County.

Other Woodlands

Other woodlands generally include black oak, coast live oak, and Engelmann oak woodlands, as well as mixed oak woodlands and undifferentiated open and dense woodlands. Oak woodlands occur in a variety of locations where soil conditions are moister than the soils hosting coastal sage scrub and chaparral vegetation. In the lowlands, they are mostly confined to stream and canyon bottoms, but in the foothills and mountains they occur in areas with good soil, especially on north and east facing slopes. Woodlands have an open canopy, whereas in forests the trees are dense enough to form a closed canopy. The coast live oak woodlands grow on the coast and in the foothills of the County and the Engelmann oak (*Quercus engelmannii*) grows only in the foothills. Canyon live oak occurs as woodlands in canyons and on shady slopes in the mountains up to 7,800 feet and interior live oak (*Q. wislizenii*) up to 6,000 feet. Oak woodlands often have an under-story of poison oak (*Toxicodendron diversilobum*), gooseberry (*Ribes* spp.), and various herbs. Black oak woodland dominated by California black oak occurs in the foothills and mountains of the County, including Cuyamaca and Mesa Grande, at elevations up to about 7,200 feet where rainfall can reach 30-50 inches.

Oak woodlands serve as habitat for bird species including plain titmouse, mountain chickadee, Nuttall's woodpecker (*Picoides nuttallii)*, northern flicker (*Colaptes auratus)*, scrub jay (*Aphelocoma* spp.), and a variety of flycatchers and owls. Since oak woodlands often occur as linear features along drainages, the mammals that inhabit them are often the same ones that occur in the surrounding chaparral habitat, including coyote, bobcat, and the occasional mountain lion. In addition, raccoons (*Procyon lotor*), striped (*Mephitis mephitis)* and spotted skunks (Spilogale spp.), opossums (*Didelphis* spp.), and several species of bats make their

homes within this plant community. Shrews and long-tailed weasels (*Mustela frenata)* tend to prefer oak woodland areas that provide more moisture. Other woodlands total approximately 111,100 acres within the County.

Pinyon Juniper Woodland

Pinyon juniper woodland, characterized by California juniper (*Juniperus californica*), is an isolated community found in remote desert mountain ranges, including areas on the leeward side of Mount Laguna and the mountains east of Jacumba. California juniper is often accompanied by four- or single-leaf pinyon pine (*Pinus quadrifolia and P. monophylla,* respectively). Extensive pinyon pine forests also exist north of San Diego County in the San Jacinto Mountain range and to the south in the Sierra Juarez of Baja, California. Southern mule deer and mountain lions inhabit the remote juniper woodlands of the unincorporated County. Pinyon juniper woodland totals approximately 54,100 acres within the County.

Playas/Badlands/Mudhill Forbs

Desert Playa consists of dry lake beds that contain water only following unusually heavy rainfall events. Flood periods occur in winter or after unusually heavy summer thunderstorms. There are several distinctive naturally occurring playas in the unincorporated County, including the Borrego Sink and Clark Dry Lake. These areas are nearly devoid of vegetation over much of their surface, though a few specially adapted plants such as hoffmanseggia (*Caesalpinia virgata*) do grow in the bottoms or edges of dry lakebeds.

The badlands, generally located in the Desert Subregion are the result of sedimentary rocks that have been tilted up by geologic forces and eroded into the uniquely sculpted badlands. Like the Desert Playa, these areas contain sparse vegetation consisting mostly of ocotillo (*Fouquieria splendens)* and other blooming desert vegetation.

Mudhill forbs habitat are the result of exposure of soils that exist as clay or have high content of minerals, such as gypsum. The soils are sticky when wet and very unstable and crumbly when dry. This unstable character and the lack of oxygen available to roots when the soils are wet eliminate the potential for many shrubs to grow there. However, in some locations, the clay soils support small native, shallow rooted, annual plants that can grow on these soils following normal or above normal winter rainfall. A total of approximately 47,700 acres of playas/badlands and mudhill forbs occur within the County.

Riparian Vegetation: Riparian Forest, Riparian Scrub, and Riparian Woodland

Riparian vegetation communities include southern coast live oak riparian forest, southern cottonwood-willow riparian forest, southern riparian scrub, southern sycamore-alder riparian woodland, southern willow scrub, desert dry wash woodland, Colorado Desert wash scrub, mule fat scrub, desert sink scrub, Sonoran wash scrub, white alder riparian forest, tamarisk scrub, and southern arroyo willow riparian forest. Riparian vegetation occurs along rivers, streams, and other drainages in the unincorporated County. Generally willows (*Salix* spp.), cottonwoods (*Populus* spp.), sycamore (*Platanus racemosa*), or mule fat (*Baccharis salicifolia*) provide the structure of the riparian habitats in the unincorporated County. Oaks (*Quercus agrifolia* and *Q. engelmannii*) are also present in some riparian habitats, such as Southern Coast Live Oak Riparian Forest.

Riparian vegetation communities are one of the most sensitive habitats in California and one of the most important vegetation communities for wildlife. The federally endangered least Bell's vireo (*Vireo bellii pusillus)* and southern willow flycatcher (*Empidonax traillii extimus)*, as well as the more common yellow-breasted chat (*Icteria virens)* and common yellowthroat, are completely dependent on riparian habitats. Other bird species, such as the American goldfinch (*Carduelis tristis)*, yellow warbler (*Dendroica petechia)*, and long-eared owl (*Asio otus)*, also frequent riparian scrubs and woodlands. Small carnivores that inhabit riparian vegetation include spotted and striped skunks, raccoons, and bobcats. Riparian vegetation and associated stream courses are critical for a variety of amphibians, including the Pacific tree frog (*Pseudacris regilla)* and the federally endangered arroyo southwestern toad (*Bufo californicus)* that inhabit the water and damp banks of water courses. Silvery legless lizards live in the leaf litter. During the dry summer months, species from nearby arid terrestrial habitats use the riparian areas for respite from the heat. Riparian vegetation in the desert region includes unusually large mesquite bosque forests in Borrego Valley near the Borrego Sink. Mesquite bosques are dense woodlands of honey mesquite and mesquite trees (*Prosopis glandulosa* var. *torreyana* and *P. pubescens*).

At one time, all of the major riverbeds in the unincorporated County supported extensive areas of riparian forests and woodlands. Good examples of riparian vegetation still exist along the major rivers of the unincorporated County, including the Santa Margarita, San Luis Rey, San Dieguito, San Diego, Sweetwater, and Tijuana Rivers. Riparian vegetation exists along stream and valley bottoms as well as deep canyons in areas where the water table is not far below the soil surface. Riparian vegetation totals approximately 49,300 acres within the County including 33,300 acres of riparian forest, 11,800 acres of riparian scrub, and 4,200 acres of riparian woodland.

Southern Foredunes, Beach, Saltpan, and Mudflats

Southern foredunes, beach, saltpan, and mudflat communities are coastal-dependent communities that occur within a short distance from the water's edge. Originally, there were nearly 2,000 acres of these habitats present in the unincorporated County. However, because of beach development, these communities have been essentially eliminated. Small areas that would have the potential to support components of the dune communities exist at the southern end of the Silver Strand on military lands in the City of Coronado, the slopes in Torrey Pines State Park in the City of San Diego that are adjacent to the lower salt marsh, and the mouth of the Santa Margarita River, in Marine Corps Base Camp Pendleton. However, none of these areas are under the jurisdiction of the County.

Southern foredune habitat is used by the western snowy plover (*Charadrius alexandrinus nivosus)*, a species listed as federally threatened, and California least tern (*Sternula antillarum browni)*, a species listed as federally endangered, as nesting habitat. In addition to the sensitive species of birds, these habitats are home to rare species of beetles. It is also important for certain plant species that are considered to be rare and endangered. However, very little of the foredune habitat still remains in an undisturbed state.

Dominant plant species where the dune habitat has not been extensively disturbed include sea rocket (*Cakile* spp.), saltgrass (*Distichlis spicata)*, ambrosia (*Ambrosia* spp.) and sand verbena (*Abronia* spp.). Many of these species have succulent leaves as a result of adaptations to a salty environment.

Saltpan and mudflat habitats are also very important for shorebirds that use them as feeding areas. The saltpan and mudflat habitats are used by a wide variety of shorebirds and are an important part of the reason that coastal San Diego County contains such a diversity of bird species. A total of approximately 460 acres of these communities occur with the County.

Urban, Disturbed Habitat, Agriculture, Eucalyptus

Urban land consists of all residential, commercial, and industrial developments, and land covered by non-native vegetation (except grasslands). Most urban types of development provide little habitat for native species, but do support several non-native species, such as mourning doves (*Zenaida macroura*), European starlings (*Sturnus vulgaris*), house sparrows (*Passer domesticus*), mice, and rats. Native species that exemplify adaptability to urban development include the northern mockingbird (*Mimus polyglottos)*, mourning dove, house finch (*Carpodacus mexicanus)*, black phoebe (*Sayornis nigricans)*, opossum, and striped skunk. During the past decade, American crows have moved into urban areas of the unincorporated County. Migrating songbirds use large stands of ornamental plantings during spring or fall, and some species such as white-crowned sparrow (*Zonotrichia leucophrys)* and cedar waxwing (*Bombycilla cedrorum),* spend the winter in residential neighborhoods of the coastal lowlands.

Disturbed land includes areas in which there is sparse vegetative cover and where there is evidence of soil surface disturbance and compaction from previous human activity and/or the presence of building foundations and debris. Vegetation on disturbed land (if present) has a high predominance of non-native and/or weedy species that are indicators of surface disturbance and soil compaction, such as Russian thistle (*Salsola tragus*), telegraph weed (*Heterotheca grandiflora*), horehound (*Marrubium vulgare*), and sow-thistle (S*onchus oleraceus*).

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 and 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, especially northern harriers (*Circus cyaneus)* and red-tailed hawks (*Buteo jamaicensis)*. White-faced ibises (*Plegadis chihi)*, egrets, crows (*Corvus* spp.), and killdeer (*Charadrius vociferus)* often use fallow or active fields.

Eucalyptus trees are not native and occur within the County because they were planted. Eucalyptus trees produce a large amount of leaf and bark litter. The chemical and physical characteristics of this litter limit the ability of other species to grow in the understory, and floristic diversity decreases. If sufficient moisture is available, eucalyptus becomes naturalized and is able to reproduce and expand its range.

Urban lands, disturbed habitat, agriculture, and eucalyptus trees account for approximately 257,800 acres of land within the County.

Water

Areas classified as water in the unincorporated County are mostly dams and reservoirs. Over the years, small ponds have been created in the backcountry for agriculture and recreation. Many of the drinking water reservoirs in the County have become habitat for bird species. The

open water of the reservoirs provide habitat for diving and dabbling ducks, egrets, herons, grebes, and cormorants, and foraging habitat for fish-eating raptors, such as ospreys (*Pandion haliaetus*) and bald eagles (*Haliaeetus leucocephalus*). Bald eagles winter at Lake Henshaw and Morena Reservoir. Western grebes (*Aechmorphorus occidentalis*) build their nests in these areas and around other inland reservoirs. Western grebes have nested at Sweetwater Reservoir since 1956 and are now also nesting at Lower Otay Reservoir (Unitt 2004). Water accounts for approximately 11,600 acres of land within the County.

2.4.1.3 Sensitive Resources

Sensitive biological resources are defined as the following: 1) vegetation communities that are unique, of relatively limited distribution, or of particular value to wildlife; and 2) species that have been given special recognition by federal or State agencies, or are included in regional conservation plans due to limited, declining, or threatened populations.

Sensitivity Designations

Federal listing of endangered and threatened wildlife and plants is administered by the U.S. Fish and Wildlife Service (USFWS) for terrestrial and freshwater species and by the National Marine Fisheries Service (NMFS) for marine and anadromous species. The USFWS and NMFS also recognize species of special concern that are candidates for listing. Before a plant or animal species can receive protection under the federal Endangered Species Act (ESA), it must first be placed on the federal list. The program follows a strict legal process to determine whether to list a species. An “endangered” species is defined as one that is in danger of extinction throughout all or a significant portion of its range. A “threatened” species is one that is likely to become endangered in the foreseeable future. The USFWS also maintains a list of plants and animals native to the U.S. that are species of special concern for possible addition to the federal list but that are not currently regulated.

The California Department of Fish and Game (CDFG) implements the California Endangered Species Act (CESA), which is a program that is similar in structure to, but different in detail from, the USFWS program implementing the federal ESA. The CDFG maintains a list of designated endangered, threatened, and rare plant and animal species. Listed species are either designated under the Native Plant Protection Act or designated by the Fish and Game Commission. In addition to recognizing three levels of endangerment, the CDFG affords interim protection to candidate species while they are being reviewed by the Fish and Game Commission. The CDFG also maintains a list of “Species of Special Concern,” most of which are species whose breeding populations in California faces extirpation. Although these species have no legal status, the CDFG recommends consideration of them during analysis of the impacts of proposed projects to protect declining populations and avoid the need to list them as endangered in the future. The CESA also protects plant species, which the federal ESA does not.

Under the provisions of Section 15380(d) of the CEQA Guidelines, the lead agency, in making a determination of significance, must treat rare non-listed plant and animal species as equivalent to listed species if such species satisfy the minimum biological criteria for listing. In general, the CDFG considers species on Lists 1A, 1B, or 2 of the *California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California* (Skinner 1994) as qualifying for consideration under this CEQA provision. Species on the California Native Plant Society (CNPS) List 3 or 4 may, but generally do not, qualify for protection under this provision. Species

on CNPS List 1A are "presumed extinct in California." Species on List 1B are "rare or endangered in California and elsewhere." Species on List 2 are "rare or endangered in California and are more common elsewhere." Species on Lists 3 and 4 are those which require more information to determine status and plants of limited distribution, respectively.

The primary information source on the distribution of special-status species in California is the California Natural Diversity Database (CNDDB) inventory, which is maintained by the Wildlife and Habitat Data Analysis Branch of the CDFG. The CNDDB inventory provides the most comprehensive Statewide information on the location and distribution of special-status species and sensitive natural communities. Occurrence data are obtained from a variety of scientific, academic, and professional organizations; private consulting firms; and knowledgeable individuals; and is entered into the inventory as expeditiously as possible. The occurrence of a species of concern in a particular region is an indication that an additional population would have the potential to occur at another location if habitat conditions are suitable. However, the absence of an occurrence in a particular location does not necessarily mean that special-status species are absent from the area in question, only that no data has been entered into the CNDDB inventory. Appendix C of this EIR provides additional detailed biological resource data in tabular form. Tables C-1 and C-2 in Appendix C identify the plants and wildlife species listed in the CNDDB for the unincorporated County.

Special Status Plants

Table C-1 in Appendix C lists the 184 special-status plant species that occur, or are thought to occur, in the County. Of these species, seven are non-vascular (bryophytes and lichens), three are gynosperms, one is a fern, 11 are monocots, and 162 are dicots.

Fourteen of the County's special-status plant species are federally endangered, six are federally threatened, and two are candidates for federal listing. Twenty-one of the special-status species are recognized under CESA as State endangered, two are listed as State threatened under CESA, and six are listed under the California Native Plant Protection Act as rare. Most of the special-status plant species in the County are CNPS List 1B or 2 species. Four are on List 3 and two are on List 4.

Special Status Wildlife

Table C-2 in Appendix C lists the 111 special-status wildlife species that occur, or are thought to occur, in the County. Of these species, six are amphibians, 33 are birds, six are fish, 29 are mammals, 16 are reptiles, and 21 are invertebrates, including crustaceans, insects, and mollusks.

Nineteen of the County's special-status wildlife species are federally endangered, three are federally threatened, one is a candidate for federal listing, and one has been delisted. Eleven of the special-status species are recognized under CESA as State-endangered, five are listed as State-threatened under CESA, and 51 are listed as California Species of Concern.

Critical Habitat

There are 21 federally listed plants and 22 federally listed endangered or threatened animals whose ranges include the unincorporated County. Of these species, two plants and eight animals have federally designated critical habitat within the unincorporated lands of the County.

The amount of designated critical habitat in the unincorporated County is approximately 557,000 acres. Approximately 70 percent of this habitat is located within National Forest or State Parks. These species include thread-leaved brodiaea, Otay tarplant, Quino checkerspot butterfly, San Diego fairy shrimp, southwestern willow flycatcher, western snowy plover, bighorn sheep, Laguna Mountain skipper, southern steelhead trout, and least Bell's vireo.

2.4.1.4 Wildlife Movement Corridors and Habitat Linkages

Wildlife corridors are defined by County of San Diego Code of Regulatory Ordinances Sections 86.501 through 86.509, the Biological Mitigation Ordinance (BMO) (adopted March 1998) as specific routes that are used for movement and migration of species. Wildlife corridors contribute to population viability in several ways: 1) they ensure continual exchange of genes between populations, which helps maintain genetic diversity; 2) they provide access to adjacent habitat areas representing additional territory for foraging and mating; 3) they allow for a greater carrying capacity; and 4) they provide routes for colonization of habitat lands following local population extinctions or habitat recovery from ecological catastrophes (also known as the rescue effect). Riparian corridors provide the primary movement corridors for wildlife in the unincorporated County and may provide cover as well as food and water for wide ranging animal species moving through otherwise unsuitable habitats.

Habitat linkages serve as connections between habitat patches and help reduce the adverse effects of habitat fragmentation. Habitat linkages would have the potential to serve both as habitat and as avenues of gene flow for small animals, such as reptiles, amphibians, and rodents. Habitat linkages can be continuous patches of habitat or nearby habitat "islands" that function as stepping stones for dispersal and movement (especially for birds and flying insects). A regional corridor/linkage is defined by the BMO as land which contains topography which serves to allow for the movement of all sizes of wildlife and is used by wildlife, including large animals on a regional scale, and contains adequate vegetation cover providing visual continuity so as to encourage the use of the corridor by wildlife. Sensitive as well as common wildlife species' populations can be adversely affected by disruption of movement corridors, linkages, or nursery sites.

A system of corridors and linkages has been designated in the southwest portion of unincorporated County through the MSCP South County Subarea Plan. The MSCP identifies core habitat areas and linkages between them. Corridors and linkages are also identified in the draft North County Plan; however, this MSCP Plan has not been adopted. Figure 2.4-2 identifies the adopted South County Subarea Plan corridors and linkages and those proposed in the North County Plan.

2.4.2 Regulatory Framework

2.4.2.1 Federal

<u>Federal Endangered Species Act (ESA)</u>

The U.S. Congress passed the federal ESA in 1973 to provide a means for conserving the ecosystems that endangered and threatened species require in order to prevent species extinctions. The federal ESA has four major components: 1) Section 4, which provides for listing species and designating critical habitat; 2) Section 7, which requires federal agencies, in

consultation 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; 3) Section 9, which prohibits against “taking” listed species; and 4) Section 10, which provides for permitting incidental take of listed species.

Under the federal ESA, the term “take” is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct.” “Critical habitat” is defined as "the specific areas within the geographic area occupied by a species on which are found those physical and biological features essential to the conservation of the species, and that may require special management considerations or protection; and specific areas outside the geographic area occupied by a species at the time it is listed, upon determination that such areas are essential for the conservation of the species.” Critical habitat has been designated for numerous species in the unincorporated County.

Migratory Bird Treaty Act (MBTA)

The MBTA of 1918 (16 U.S. Code 703-711) implements an international treaty for the conservation and management of bird species that may migrate through more than one country. Enforced in the U.S. by the USFWS, the MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) may be considered a “take” and is potentially punishable by fines and/or imprisonment. In 1972, the MBTA was amended to include protection for migratory birds of prey (raptors). Generally, applicants who obtain an ESA Section 10(a) permit simultaneously receive a three-year MBTA permit for ESA-listed migratory birds.

Bald and Golden Eagle Protection Act

Enacted in 1940, this Act prohibits the take, transport, sale, barter, trade, import, export, and possession of bald eagles, making it illegal for anyone to collect bald eagles and eagle parts, nests, or eggs without authorization from the Secretary of the Interior. The Act was amended in 1962 to extend the prohibitions to the golden eagle.

Federal Water Pollution Control Act (Clean Water Act) (1972)

The Water Pollution Control Act, passed by Congress in 1948, authorized the Surgeon General of the Public Health Service to prepare comprehensive programs for eliminating or reducing the pollution of interstate waters and tributaries and improving the sanitary condition of surface and underground waters. The Act was later amended to become the Federal Water Pollution Control Act Amendments of 1972, commonly known as the Clean Water Act (CWA). The CWA was designed to restore and maintain the chemical, physical, and biological integrity of the waters of the U.S. and gave the EPA the authority to implement pollution control programs, including setting wastewater standards for industry and water quality standards for contaminants in surface waters. The EPA has delegated responsibility for implementation of portions of the CWA in California to the State Water Resources Control Board (SWRCB) and the RWQCB, including water quality control planning and control programs.

The CWA also prohibits the discharge of any pollutants from a point source into navigable waters, except as allowed by permits issued under certain sections of the CWA. Specifically,

Section 404 authorizes the U.S. Army Corps of Engineers (ACOE) to issue permits for and regulate the discharge of dredged or fill materials into wetlands or other “waters of the U.S.” Under the CWA and its implementing regulations, “waters of the U.S.” are broadly defined as rivers, creeks, streams, and lakes extending to their headwaters, including adjacent wetlands. Further, Section 401 allows states to certify or deny federal permits or licenses that might result in a discharge to State waters, including wetlands. Section 401 certifications are issued by the RWQCB for activities requiring a federal permit or license that may result in the discharge of pollutants into waters of the U.S.

2.4.2.2 State

California Fish and Game (CFG) Code

The CFG Code regulates the taking or possession of birds, mammals, fish, amphibians, and reptiles, as well as natural resources such as wetlands and waters of the State. It includes the CESA (Sections 2050-2115) and Streambed Alteration Agreement regulations (Sections 1600-1616), which are both discussed in more detail below, as well as provisions for legal hunting and fishing, and tribal agreements for activities involving take of native wildlife. The CFG Code also includes protection of birds (3500 *et seq.) and* the California Native Plant Protection Act (NPPA) of 1977 (Sections 1900-1913), which directed CDFG to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State.”

California Endangered Species Act (CESA)

The CESA is similar in many ways to the federal ESA. CESA is administered by the CDFG. CESA provides a process for CDFG to list species as threatened or endangered in response to a citizen petition or by its own initiative (CFG Code Section 2070 et seq.). Section 2080 of the CESA prohibits the take of species listed as threatened or endangered pursuant to the Act. Section 2081 allows CDFG to authorize take prohibited under Section 2080 provided that: 1) the taking is incidental to an otherwise lawful activity; 2) the taking will be minimized and fully mitigated; 3) the applicant ensures adequate funding for minimization and mitigation; and 4) the authorization will not jeopardize the continued existence of the listed species. In addition, Section 2800 *et seq.* of the CFG Code addresses Natural Community Conservation Planning (NCCP).

Lake and Streambed Alteration Program

Section 1602 of the CFG Code requires any person, state, or local governmental agency to provide advance written notification to CDFG prior to initiating any activity that would: 1) divert or obstruct the natural flow of, or substantially change or remove material from the bed, channel, or bank of any river, stream, or lake; or 2) result in the disposal or deposition of debris, waste, or other material into any river, stream, or lake. The State definition of “lakes, rivers, and streams” includes all rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life, and watercourses with surface or subsurface flows that support or have supported riparian vegetation.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act provides for Statewide coordination of water quality regulations. The Act established the California SWRCB as the Statewide authority and

nine separate RWQCBs to oversee smaller regional areas within the State. The Act authorizes the SWRCB to adopt, review, and revise policies for all waters of the State (including both surface and ground waters); and directs the RWQCBs to develop regional Basin Plans. Section 13170 of the California Water Code also authorizes the SWRCB to adopt water quality control plans on its own initiative. The Basin Plan for the San Diego Region is designed to preserve and enhance the quality of water resources in the San Diego region for the benefit of present and future generations. The purpose of the plan is to designate beneficial uses of the Region's surface and ground waters, designate water quality objectives for the reasonable protection of those uses, and establish an implementation plan to achieve the objectives.

Natural Community Conservation Planning (NCCP) Act of 1991

The NCCP Act is designed to conserve natural communities at the ecosystem scale while accommodating compatible land uses. CDFG is the principal state agency implementing the NCCP Program. Section 2800 *et seq.* of the CFG Code addresses NCCPs and a 2835 permit is issued by CDFG for all NCCPs. The Act established a process to allow for comprehensive, regional multi-species planning in a manner that satisfies the requirements of the State and federal ESAs (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 it depend. NCCPs seek to ensure the long-term conservation of multiple species, while allowing for compatible and appropriate economic activity to proceed.

2.4.2.3 Local

San Diego County Zoning Ordinance

The County Zoning Ordinance is the primary regulatory document for land use in the County. Adopted October 18, 1978 and most recently amended in May 2007, the Zoning Ordinance acts as an implementation vehicle for elements of the General Plan. Land may have a zoning designation or special area regulation with certain restrictions pursuant to the Zoning Ordinance. For instance, San Diego County Zoning Ordinance Sections 2810 through 2818 are the S81 Ecological Resource Area Regulations. The few uses allowed on lands with this designation are subject to strict provisions and limitations. The Zoning Ordinance also applies other Special Area Regulations with specific restrictions and provisions, including Sections 5300 through 5307, Sensitive Resource Area Regulations (Designator G); Sections 5950 through 5957, Coastal Resource Protection Area Regulations (Designation R); and/or Sections 5850 through 5856, Vernal Pool Area Regulations (Designator V).

Multiple Species Conservation Program (MSCP)

The MSCP is a County conservation planning program designed to establish connected preserve systems that ensures the long-term survival of sensitive plant and animal species and protects the native vegetation found throughout the unincorporated County. Plans created under this program are both a federal Habitat Conservation Plan (HCP) and a State NCCP, as described above in Section 2.4.2.2. The MSCP addresses the potential impacts of urban growth, natural habitat loss, and species endangerment and creates plans to mitigate for the potential loss of sensitive species and their habitats.

The County has developed and adopted a plan for the unincorporated areas in the southern part of the County. This plan was created as part of a larger plan known as the regional MSCP Plan (August 1998). The MSCP Plan covers 582,243 acres over 12 jurisdictions. Each jurisdiction has its own Subarea Plan and each differs in how it implements the MSCP Plan. The Subarea Plan for the County's jurisdiction, adopted by the Board of Supervisors (BOS) on October 22, 1997, covers 252,132 acres in the southwestern portion of the unincorporated area, as shown in Figure 2.1-1. The documents used to implement the MSCP include the South County Subarea Plan (adopted October 1997), the BMO, the Final MSCP Plan (dated August 1998), and the Implementing Agreement between the County and Wildlife Agencies (signed March 1998).

The County is currently developing additional MSCP Plans for the North County and East County areas. A Draft North County Plan was released for public review on February 19, 2009. The public may submit comments and a second draft of the plan, along with its EIR, is expected to be released in fall 2009. The final North County Plan is expected to be brought to the BOS for approval by the end of 2010. The draft Plan covers 63 plant and animal species in a 294,849-acre area in North County stretching from Camp Pendleton and the Riverside County line to the community of Ramona (County 2009).

Any habitat set aside for the protection of biological resources in accordance with the MSCP is considered sensitive. MSCP Plans divide habitats into tiers based on sensitivity. Tier I habitats are generally the most sensitive and usually support a high diversity of plant and animal species or occur in limited areas within the unincorporated area of the County. Tier II habitats contain a number of sensitive species, but are more likely to occur throughout the unincorporated area of the County or in remote areas where development is not anticipated. Tier III habitats contain natural habitats not included in the other two categories and Tier IV includes disturbed lands.

The MSCP aids in the preservation of sensitive plant and animal species, helping to eliminate the need for future listings of species as endangered under federal and State Endangered Species Acts and reduces the costly permit process for private landowners and public agencies. The overall goal of the MSCP is a large, connected and managed preserve system that addresses a number of species at the habitat level rather than species by species and area-by-area. This will create a more effective preserve system as well as better protect the rare, threatened, and endangered species.

County of San Diego Code of Regulatory Ordinances Sections 86.501-86.509, Biological Mitigation Ordinance (BMO)

The BMO provides the regulatory basis for implementing the MSCP South County Subarea Plan. The BMO outlines the sensitive resources of concern and sets forth the specific criteria and requirements that all private and public projects must follow. The MSCP South County Subarea Plan and BMO provide specific criteria for project design, impact allowances, and mitigation requirements. The BMO includes specific project design criteria that must be incorporated into each project, such as protecting wildlife movement corridors and avoiding resources considered to be significant. The BMO also limits the amount of impacts that can occur to certain sensitive, rare, or endangered species, and sets the minimum amount of mitigation that must be implemented.

Implementing Agreement (IA)

The IA is a tool to fulfill the obligations of the MSCP South County Subarea Plan. The IA was signed on March 17, 1998 between the USFWS, CDFG, and the County of San Diego. This 50-year cooperative agreement provides for the conservation of 85 plant and animal "covered species," establishes management conditions, and requires each of the parties to perform certain duties and responsibilities. It also provides for remedies and recourse should any of the parties fail to perform.

County of San Diego Code of Regulatory Ordinances Sections 86.601-86.608, Resource Protection Ordinance (RPO)

The RPO was adopted in 1989 and later amended in 1991 and 2007. The RPO restricts, to varying degrees, impacts to natural resources including environmentally sensitive lands such as wetlands, wetland buffers, floodplains, steep slopes, sensitive habitat lands, and historical sites. Certain discretionary permit types are subject to the requirement to prepare Resource Protection Studies under the RPO. Such discretionary permits include TMs, TPMs, Revised TMs, Revised TPMs, Rezones, MUPs, MUP modifications, and Site Plans.

The RPO requires that wetlands and their adjacent wetland buffers be protected on sites where these permits are granted. It also sets forth certain allowable uses within these lands.

The RPO also requires that applicable discretionary projects protect sensitive habitat lands. Sensitive habitat lands include unique vegetation communities and/or the habitat that is either necessary to support a viable population of sensitive species, is critical to the proper functioning of a balanced natural ecosystem, or which serves as a functioning wildlife corridor.

County of San Diego Code of Regulatory Ordinances Sections 67.801-67.814, Watershed Protection, Stormwater Management, and Discharge Control Ordinance (WPO)

The purpose of the WPO, adopted in 2002 and updated in 2008, is to protect water resources and to improve water quality. This ordinance: 1) prohibits polluted non-stormwater discharges to the stormwater conveyance system and receiving waters; 2) establishes requirements to prevent and reduce pollution to water resources; 3) establishes requirements for development project site design to reduce stormwater pollution and erosion; 4) establishes requirements for the management of stormwater flows from development projects to prevent erosion and to protect and enhance existing water-dependent habitats; 5) establishes standards for the use of off-site facilities for stormwater management to supplement on-site practices at new development sites; 6) establishes notice procedures and standards for adjusting stormwater and non-stormwater management requirements; and 7) ensures that the County is compliant with applicable state and federal laws. The ordinance applies to all projects requiring certain discretionary or ministerial approval in the unincorporated County that are not already regulated under a valid facility-specific NPDES permit or facility-specific RWQCB Waste Discharge Requirements permit. The ordinance applies to, but is not limited to, projects that require a tentative map, grading permit, or building permit. Projects are required to submit plans demonstrating how the requirements of the WPO would be met in order for the project to be approved.

County of San Diego Code of Regulatory Ordinances Sections 86.501-86.509, Habitat Loss Permit (HLP) Ordinance

The HLP Ordinance was adopted in March 1994 in response to both the listing of the coastal California gnatcatcher as a federally threatened species and the adoption of the NCCP Act by the State of California. Pursuant to the Special 4(d) Rule under the ESA, the County is authorized to issue "take permits" for the coastal California gnatcatcher (in the form of HLPs) in lieu of Section 7 or Section 10(a) permits, which are typically required from the USFWS. Although issued by the County, the wildlife agencies (USFWS and CDFG) must concur with the issuance of an HLP for it to become valid as take authorization under the ESA. The HLP Ordinance states that projects must obtain an HLP prior to the issuance of a grading permit, clearing permit, or improvement plan if the project will directly or indirectly impact any coastal sage scrub habitat types. The HLP is required if coastal sage scrub or related habitat will be impacted, regardless of whether or not the site is currently occupied by coastal California gnatcatcher. HLPs are not required for projects within the boundaries of an adopted MSCP Plan since take authorization is conveyed to those projects through compliance with the MSCP Plan.

San Diego County Board of Supervisors (BOS) Policy I-123, Conservation Agreement for the Multiple Species Conservation Program (MSCP) Plan

This policy establishes the process for the County to acquire habitat for MSCP Preserve lands at minimal public cost while providing incentives for voluntary landowner participation in the program. The implementing mechanism is a conservation agreement through which a landowner would permanently set aside land which contributes to the County's MSCP Preserve in exchange for certain financial and permitting benefits. The property owner would receive Third Party Beneficiary Status, be included under the County's MSCP Plan and would have the potential to qualify for reductions in water availability stand-by charges provided by the Metropolitan Water District of Southern California or the San Diego County Water Authority.

2.4.3 Analysis of Project Impacts and Determination of Significance

2.4.3.1 Issue 1: Special Status Plant and Wildlife Species

Guidelines for Determination of Significance

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would result in a significant impact if it would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS.

Impact Analysis

Development of land uses consistent with the proposed General Plan Update, and construction of new infrastructure to support these land uses, have the potential to directly or indirectly impact habitats of candidate, sensitive, or special status species. Candidate species are species that are eligible for listing as a federal or State threatened or endangered species. Sensitive species are species that have been given special recognition by federal or State

agencies, or are included in regional plans due to limited, declining, or threatened populations. Special status species are designated as threatened or endangered by the CDFG or USFWS. As a result of impacts to species habitat, the General Plan Update would result in impacts to candidate, sensitive and special status species. A discussion of each vegetation community in the unincorporated County and the species supported by each is included in Section 2.4.1.2 above. For the purposes of this EIR, impacts to sensitive species habitats would represent a potentially significant impact to special status plant and wildlife species because these habitats are essential to support populations of the special status species.

Direct Impacts

Potential direct impacts of the General Plan Update would include removal of habitat for new development and infrastructure. New buildings and infrastructure in previously undeveloped areas would have the potential to result in the removal of habitats that support sensitive species. Redevelopment under the General Plan Update or new development in currently urbanized areas would result in fewer impacts to habitats because they are generally already disturbed and less able to support sensitive species in these areas. Some proposed land uses would result in greater biological impacts than others due to increased development densities. Figure 2.4-3 shows the proposed project's estimated impacts to vegetation communities according to land use designation, including the criteria used to estimate impacts. The estimated impacts are discussed in greater detail below. As shown in this figure, all areas proposed for village residential, commercial, industrial, office professional, village core mixed use, or public/semi-public facilities land uses are estimated to have 100 percent impact to habitat because these higher-density land uses would potentially require the removal of all existing vegetation during land development. Higher-density semi-rural residential areas are also estimated to result in 100 percent impact. Lower density semi-rural residential areas are estimated to result in 50-75 percent impact because these areas would have larger parcels which would result in the removal of some vegetation while also avoiding some areas of natural habitat. Rural lands, which would have the largest parcel sizes, are estimated to result in an impact of five acres for every dwelling unit. Areas designated as tribal lands, military installations, National Forests and State Parks, and conserved open space were considered to have no impact to sensitive habitats because either the County does not have jurisdiction over these areas or the General Plan Update does not propose impactful uses for these areas. Existing open space easements or MSCP preserves have also been excluded from the impact totals.

Table 2.4-1, Total Habitat Impacts by CPA and Subregion, provides the total acreage of habitat that would be impacted as a result of development accommodated by the General Plan Update. Table C-3, Impacts to Vegetation Communities by CPA and Subregion, located in Appendix C of this EIR, presents the estimated acreage of each habitat in each planning area that would be potentially impacted. As shown in these tables, the areas with the greatest total acreage impact are Desert Subregion (19,030 acres), Mountain Empire Subregion (15,606 acres), North Mountain Subregion (14,390 acres), Ramona CPA (15,245 acres), and Valley Center CPA (14,259 acres). Ramona CPA and Valley Center CPA are proposed for substantial growth under the General Plan Update; therefore, these areas would result in large acres of impacts to habitat from planned future development. Most areas in the Desert, Mountain Empire, and North Mountain Subregions are proposed for low density rural development; however, these Subregions are relatively undeveloped. Therefore, new development in these areas would be likely to impact natural habitat. Likewise, the more urbanized areas of the County are anticipated to have the least amount of impact under the General Plan Update because a large portion of the habitats in these areas have previously been removed or disturbed. The CPAs

with the smallest estimated habitat impacts include County Islands CPA (32 acres), Spring Valley CPA (756 acres), Sweetwater CPA (858 acres), and Valle de Oro CPA (1,199 acres).

Table 2.4-2 provides the total acreage of each habitat/vegetation community impacted. As shown in this table, a total of approximately 174,638 acres of habitat types would be impacted Countywide as a result of the proposed project. The most heavily impacted vegetation communities would be chaparral (55,058 acres), Diegan coastal sage scrub (31,186 acres), non-native grassland (14,005 acres), and Desert Scrub/Sonoran creosote bush scrub (10,775 acres). Therefore, the proposed project would have the potential to directly and indirectly impact habitat that supports sensitive plant and wildlife species. Section 2.4.1.2, Vegetation Communities, and Tables C-1 and C-2 in Appendix C identify the typical sensitive species found in these and other vegetation communities in the unincorporated County. The sensitive federal or State-listed (either threatened or endangered) plant and animal species found in the five most heavily impacted habitats are provided below. Other candidate and special status species are also found in these vegetation communities, as identified in Tables C-1 and C-2 in Appendix C.

- **Chaparral.** Dehesa nolina (*Nolina interrata),* Del Mar Manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia),* Encinitas baccharis (*Baccharis vanessae),* Mexican flannelbush (*Fremontodendron mexicanum*), Mojave tarplant (*Deinandra mohavensis),* Nevin's Barberry (*Berberis nevinii*), Orcutt's chorizanthe (*Chorizanthe orcuttiana*), San Diego ambrosia (*Ambrosia pumila),* San Diego button celery (*Eryngium aristulatum parishii*), San Diego Thornmint (*Acanthomintha ilicifolia*), Short leaved dudleya (*Dudleya blochmaniae brevifolia*), Spreading navarretia (*Navarretia fossalis*), Quino checkerspot butterfly (*Euphydryas editha quino)*

- **Coastal Sage Scrub.** Otay mesa mint (*Pogogyne nudiuscula*), San Diego ambrosia, San Diego button celery, San Diego Thornmint, Spreading navarretia, Willowy monardella (*Monardella linoides* viminea), Pacific pocket mouse (*Perognathus longimembris pacificus*), California gnatcatcher

- **Grassland.** Orcutt grass (*Orcuttia californica*), Otay mesa mint, Otay tarplant (*Deinandra conjugens*), San Diego ambrosia, San Diego button celery, San Diego Thornmint Spreading navarretia, Thread-leaved brodeaia (*Brodiaea filifolia*), American peregrine falcon (*Falco peregrinus anatum*), Pacific pocket mouse, Quino checkerspot butterfly, Stephens' kangaroo rat, Swainson's hawk (*Buteo swainsoni*)

- **Sonoran Creosote Bush Scrub (within Desert Scrub).** Pierson's Milkvetch (*Astragalus magdalenae peirsonii*), Peninsular bighorn sheep (*Ovis canadensis nelsoni*), Quino checkerspot butterfly, Swainson's hawk

Additionally, the General Plan Update would have the potential to result in impacts to designated critical habitat. As described in Section 2.4.1.3, the amount of designated critical habitat in the unincorporated County is about 557,000 acres. Approximately 70 percent of this habitat is located in areas that are being designated as National Forest or State Parks. The General Plan Update does not propose land uses within federal and State-owned lands because the County does not have jurisdiction in these areas. However, future development of General Plan Update land uses outside of federal and State-owned parks would have the potential to result in direct impacts to designated critical habitat.

Indirect Impacts

The indirect impacts to sensitive species and their habitat that would have potential to occur as a result of new development or redevelopment under General Plan Update are described below.

- Water quality in riparian areas would have the potential to be adversely affected by pollutants in runoff and sedimentation under the General Plan Update. Decreased water quality would have the potential to adversely affect the vegetation, aquatic animals, and terrestrial wildlife that depend upon these resources. Refer to Section 2.8, Hydrology and Water Quality, regarding the proposed projects impacts to water quality.

- Fugitive dust produced by construction under the General Plan Update would have the potential to disperse onto sensitive vegetation adjacent to construction sites. A continual cover of dust would have the potential to reduce the overall vigor of individual plants by reducing their photosynthetic capabilities and increasing their susceptibility to pests or disease. In turn, this would have the potential to affect animals dependent on these plants. Refer to Section 2.3, Air Quality, regarding the proposed projects impacts related to fugitive dust during construction.

- Non-native plants would have the potential to colonize development and infrastructure sites and spread into adjacent native habitats. Such colonization may be brought about by landscaping, agriculture, runoff, or soil disturbance. Many non-native plants common to the San Diego region are highly invasive and tend to displace native vegetation, thereby affecting sensitive species and reducing native species diversity overall.

- Edge effects would occur if blocks of habitat were fragmented. New construction and new roadways would have the potential to fragment habitats. Brush management and trail construction or use can also result in potentially significant edge effects to special status plants and wildlife species and/or their supporting habitats. The increased edge between development and habitat makes it easier for non-native plant species to invade native habitats and for both native and non-native predators to access prey that would have otherwise been protected within large, contiguous blocks of habitat.

- Increases in human activity in and adjacent to undeveloped areas as a result of new development of General Plan Update land uses would have the potential to result in degradation of sensitive vegetation. This can result in more fragmented habitat and formation of edges through the creation of unauthorized trails, as well as other impacts such as increased erosion and predation of native species by domesticated animals.

- Construction of new Mobility Element roadways and other infrastructure under the General Plan Update would have the potential to deter wildlife movement, degrade existing vegetation, compact soils, change natural runoff patterns, and facilitate the invasion of nonnative species (CBI 2005).

- Noise that results in indirect impacts is typically associated with construction activity and roadway traffic. To avoid noise impacts, breeding birds and mammals may temporarily or permanently leave their territories, which would have the potential to lead to reduced reproductive success and increased mortality.

- Night lighting on native habitats would have the potential to provide nocturnal predators with an unnatural advantage over their prey. Artificial light can also disrupt other

essential behavioral and ecological processes (e.g., breeding, foraging, migration, etc.). Outdoor lighting used in the development or redevelopment of residential, commercial, industrial, or public/semi-public uses would have the potential to result in a new source of glare and/or lighting.

It has been found that the magnitude of indirect effects, such as those described above, increase greatly with increased densities for development. Based on an analysis completed by the Conservation Biology Institute (CBI) of the proposed General Plan Update in rural areas of the County, densities of one dwelling unit per forty acres (1du/40 acres) or greater have a substantially more severe impact on biological resources, especially sensitive resources, than lower development densities. This is primarily due to the extent of direct habitat loss, fragmentation, and edge effects associated with higher densities in rural areas (CBI 2005).

Federal, State, and Local Regulations and Existing Regulatory Processes

As identified in Section 2.4.2, Regulatory Framework, there are a number of federal, State, and local regulations in place to protect special status species.

The federal MBTA prohibits the disturbance of migratory birds including raptors. In addition, the Bald and Golden Eagle Protection Act limits impacts to bald eagles and golden eagles. The federal ESA requires a Section 7 or Section 10 process be undertaken if a project would result in take of a federally listed species, while the CESA prohibits take of State-listed species without securing a Section 2081 permit. These permits may also be achieved through NCCP plans such as the MSCP Plans.

The County's adopted MSCP Subarea Plan covers the southwestern portion of the unincorporated County, depicted as South County MSCP Boundary - Adopted in Figure 2.1-1. It serves to protect designated sensitive plant and animal species and their habitats depending on location and site characteristics. The BMO implements the Subarea Plan, outlines the sensitive resources of concern, and sets forth the specific criteria and requirements that all private and public projects within the South County MSCP boundary must follow.

Outside of existing MSCP Plans, the Southern California Coastal Sage Scrub NCCP is in effect. This interim program enables the County to benefit from interim take provisions established in the USFWS special rule 4(d). The County is allowed a loss of up to 5 percent of its coastal sage scrub habitat if it is actively developing a comprehensive NCCP for the area. The five percent allowed take amounted to 2,953.30 acres initially and the County currently has 1,793.49 acres remaining. The interim take refers to the authorization for removal of coastal sage scrub and/or any incidental impacts to target species (such as California gnatcatcher, coastal cactus wren and orange-throated whiptail) if achieved in accordance with findings set forth in the NCCP Process Guidelines. The HLP Ordinance allows the County to issue these interim "take permits" in the form of Habitat Loss Permits for projects impacting California gnatcatcher and/or coastal sage scrub habitat.

Discretionary projects located outside an existing MSCP Plan area that potentially affect sensitive species and habitats other than California gnatcatcher and coastal sage scrub are evaluated using the County's Guidelines for Determining Significance for Biological Resources.

Certain discretionary projects are also subject to the County's RPO. While this ordinance does not address individual special status species, it does protect resources inhabited or utilized by such species, such as sensitive habitat lands, wetlands, and wetland buffers.

Per the County of San Diego Zoning Ordinance, a zoning designation or Special Area Regulation with certain restrictions related to biological resources is applied to some areas with sensitive biological resources. Zoning designations include Ecological Resource Area Regulations or a Special Area Designator for sensitive resources, coastal resources, or vernal pools.

Proposed General Plan Update Goals and Policies

The General Plan Update includes policies in the Conservation and Open Space Element and Land Use Element that would reduce the potential for adverse impacts to sensitive species. Goal COS-1 calls for an inter-connected preserve system that is regionally managed and embodies the regional biological diversity of the San Diego County. This goal is supported by Policy COS-1.3 which requires the monitoring, management and maintenance of a regional preserve system to ensure the preservation of special status species. Policies COS-1.6 through COS-1.8 will facilitate preserve assembly and funding. Policy COS-1.9 serves to minimize invasive plants near preserves and removal of invasives within biological preserves. Policy COS-1.10 calls for public involvement in the preparation of habitat conservation plans and resource management plans. Policy COS-1.11 encourages participation of planning groups in preserve management activities.

Goal COS-2 strives for sustainability of the natural environment such that the natural processes, sensitive lands, and sensitive as well as common species are maintained along with sustainable growth and development. Policies COS-2.1 and COS-2.2 encourage the restoration and limit the degradation of natural habitats and require development to protect the habitat through site design. Goal LU-6 is a built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. This goal is supported by Policies LU-6.1 through LU-6.4, LU-6.6, LU-6.7, and M-12.9. These policies support the protection of critical and sensitive natural resources and the long-term sustainability of the natural environment, assign low-density or low-intensity land use designations to areas with sensitive natural resources, support conservation-oriented project design when appropriate and consistent with the applicable community plan, require that trails are designed to minimize impacts to sensitive environmental resources, require that residential subdivisions be planned to conserve open space and natural resources, require incorporation of natural features into proposed development and avoidance of sensitive environmental resources, and encourage contiguous open space areas that protect wildlife habitat and corridors. Additionally, Policy LU-10.2 requires development in semi-rural and rural areas to respect and conserve the unique natural features, preserve rural character, and avoid sensitive environmental resources and natural hazard areas.

Summary

Implementation of the General Plan Update would have the potential to result in direct and indirect impacts to special status plant and wildlife species and their habitat. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect biological resources, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the

proposed project is concluded to result in a potentially significant impact to special status species and their habitats and specific implementation programs are identified as mitigation.

2.4.3.2 Issue 2: Riparian Habitat and Other Sensitive Natural Communities

Guidelines for Determination of Significance

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would result in a significant impact if it would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS.

Impact Analysis

Section 2.4.3.1, Issue 1: Special Status Plant and Wildlife Species, describes the proposed project's impact to sensitive natural communities in the unincorporated County. As stated in this section, the proposed project would result in a potentially significant impact to sensitive habitats in the County from direct and indirect impacts associated with General Plan Update land uses. Therefore, the following section focuses solely on riparian habitats. Riparian communities occur along rivers, streams, and other drainages in the unincorporated County. According to the Riparian Bird Conservation Plan (CPF 2004), riparian habitats are defined as habitats along the banks or otherwise adjacent to freshwater bodies, watercourses, estuaries, and other surface waters. These areas can be perennial, intermittent, or ephemeral. Riparian areas connect terrestrial and aquatic habitats and provide linkages between water bodies and upstream vegetation communities. The available water provides soil moisture in excess of that typically available in upland habitats.

Direct Impacts

Similar to other vegetation communities, direct impacts to riparian habitats would include removal or disturbance due to new development. Potential direct impacts to riparian habitats were estimated using the same methodology described above for Issue 1. The acreage of riparian habitat in each CPA and Subregion with the potential to be impacted by the proposed project is identified in Table 2.4-3. The General Plan Update would have the potential to impact 10,131 acres of riparian habitat. The CPAs and Subregions with the greatest acreage of potential direct impacts are the Desert Subregion (1,357 acres), Fallbrook CPA (1,176 acres), Mountain Empire Subregion (885 acres), North County Metro Subregion (752 acres), and Ramona CPA (636 acres). Fallbrook CPA, North County Metro Subregion, and Ramona CPA are located in the western areas of the County where growth under the General Plan Update would be concentrated. The Desert Subregion and Mountain Empire Subregion are proposed for low density development; however, these areas are relatively undeveloped and new development would be more likely to directly affect undisturbed riparian habitats. Table 2.4-4 lists the estimated acreage of each riparian vegetation community that would be impacted by build-out of the General Plan Update. As shown in Table 2.4-4, the riparian habitat types with the potential to be most impacted by future development under the General Plan Update are southern coast live oak riparian forest (3,085 acres), southern cottonwood-willow riparian forest (1,206 acres), and southern riparian scrub (965 acres).

Indirect Impacts

Indirect impacts to riparian habitats that would have the potential to result from build-out of the General Plan Update include degradation of water quality due to runoff from new urban development, drawdown of the groundwater table by new groundwater-dependent development that depletes the water supply available to riparian vegetation, and the introduction of invasive species. Development under the General Plan Update can potentially modify the natural flow of streams, which would consequently impact aquatic and riparian communities and species dependent on natural streamflow. Additional impervious surface area would also have the potential to increase stormwater runoff, peak discharges, and flood magnitude downstream (CBI 2005). These changes would similarly result in modified streamflow or introduction of pollutants to riparian habitats. As further discussed in Sections 2.8.3.1 and 2.8.3.3, it is expected that non-point source pollutants caused by development of the proposed land uses would degrade water quality within the County's surface waters. Additionally, implementation of the General Plan Update would result in significant impacts to groundwater supply and recharge (Section 2.8.3.2). These direct hydrological effects would, therefore, result in potentially significant indirect impacts to riparian habitats.

Federal, State, and Local Regulations and Existing Regulatory Processes

As noted above in Issue 1, numerous federal, State and local regulations exist to protect sensitive natural communities identified in local or regional plans, policies, regulations, or by CDFG or USFWS. In addition, there are a number of federal, State, and local regulations in place to protect riparian habitat. The CWA regulates certain impacts to federally protected wetlands as well as non-wetland waters of the U.S. The California Lake and Streambed Alteration Program (Section 1602 of the CDFG Code) requires written notification to CDFG prior to altering a riparian area supported by a lake, river, or stream.

On the local level, the County's RPO restricts certain impacts to wetlands, wetland buffers, floodways, and floodplain fringe areas. The WPO is applied to development permits to minimize impacts to wetlands and water bodies. Additionally, per the County of San Diego Zoning Ordinance, some sensitive lands have Special Area Designators for floodplains, flood channels, or vernal pools.

Proposed General Plan Update Goals and Policies

The General Plan Update includes Goal COS-3 to protect riparian habitats. Goal COS-3 is wetlands that are restored and enhanced and protected from adverse impacts. This goal is supported by Policy COS-3.1, which requires development to preserve wetlands and riparian habitats to retain opportunities for enhancement and preservation, and to minimize any disturbances when total avoidance is not feasible. The General Plan Update goals and policies identified above in Section 2.4.3.1, Issue 1, would protect other sensitive natural communities.

Summary

Implementation of the General Plan Update would have the potential to result in direct and indirect impacts to riparian habitat and other sensitive natural communities. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect riparian habitats, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the

proposed project is concluded to result in a potentially significant impact to riparian habitat and other sensitive natural communities and specific implementation programs are identified as mitigation.

2.4.3.3 Issue 3: Federally Protected Wetlands

Guidelines for Determination of Significance

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would result in a significant impact if it would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means.

Impact Analysis

Federally protected wetlands are defined in Section 404 of the CWA as areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. The natural vegetation communities in the unincorporated County with the potential to contain federally protected wetlands are listed in Table 2.4-5.

Direct impacts to federally protected wetlands would occur if development of the General Plan Update land-use designations resulted in the removal, filling, hydrological interruption, or other disturbance to these resources. For the purpose of this EIR, areas with the potential to support federally protected wetlands were approximated by using topographical and regional vegetation maps for the County. These generalized areas were included in the impact analysis wherever they overlapped with General Plan Update land-use designations, as described in the direct impacts discussion for Issue 1 above. Impacts were not limited to areas where federally protected wetlands have been determined to occur. As such, this represents a conservative or worst-case estimate of impacts to federally defined wetlands. Actual impacts to federally protected wetlands can only be determined through specific site surveys and project-level information.

Table 2.4-6 provides the estimated acreage of impacts to federally protected wetlands in each CPA or Subregion. Approximately 1,841 acres of federally defined wetlands would have the potential to be impacted in the unincorporated County. The areas with the greatest acreage impact potential to federally protected wetlands are Fallbrook CPA (204 acres), North County Metro Subregion (188 acres), Ramona CPA (180 acres), and Jamul/Dulzura Subregion (174 acres). Fallbrook CPA, North County Metro Subregion, and Rainbow CPA are proposed for substantial growth under the General Plan Update; therefore, these areas would have the potential to result in large acres of habitat impacted by direct removal. Most of the Jamul/Dulzura Subregion is proposed for low density rural development; however, this Subregion is relatively undeveloped and any new development near wetlands would have the potential to directly affect riparian vegetation. The CPAs with the lowest potential to impact federally protected wetlands include County Islands CPA (1 acre) and Valle de Oro CPA (11 acres). These CPAs are more urbanized relative to the rest of the unincorporated County and are estimated to result in fewer impacts under the General Plan Update because a large portion of the habitat in these areas has either already been disturbed or has been preserved in perpetuity. Since development of the land uses proposed under General Plan Update may

occur on or near areas mapped as wetlands, direct impacts to federally protected wetlands may result from the proposed project.

Federal, State, and Local Regulations and Existing Regulatory Processes

As identified in the Section 2.4.2, Regulatory Framework, and further discussed in Section 2.4.3.2, Issue 2, there are a number of federal, State, and local regulations in place to limit impacts to federally protected wetlands in the County. At the federal level the CWA prohibits the discharge of pollutants or fill materials in waters of the U.S. without obtaining a Section 404 permit from the ACOE and a Section 401 certification from the RWQCB. At the State level the Lake and Streambed Alteration Program requires written notification to CDFG prior to altering a riparian area (a type of wetland) supported by a lake, river, or stream, including federally protected wetlands. For water quality impacts to all wetlands, the California Porter-Cologne Water Quality Control Act directs the RWQCBs to develop regional Basin Plans, which, for the San Diego Region, is designed to preserve and enhance the quality of water resources in the region. At the local level the RPO restricts impacts from certain project types to various wetlands, wetland buffers, floodways, and floodplain fringe areas, which would potentially contain federally protected wetlands. In addition, both the WPO and the Zoning Ordinance include special protections for wetlands that would apply to federally protected wetlands.

Proposed General Plan Update Goals and Policies

The General Plan Update includes policies in the Conservation and Open Space Element which would reduce the potential for adverse impacts to federally protected wetlands. Conservation and Open Space Element Policy COS-3.1 requires new development to protect and avoid wetland areas. Conservation and Open Space Element Policy 3.2 requires new development to mitigate unavoidable losses to wetlands so that no-net-loss of wetlands occurs and to protect wetlands from discharges.

Summary

Implementation of the General Plan Update would have the potential to result in impacts to federal wetlands. While existing County policies and regulations and proposed General Plan Update goals and policies are intended to protect federally defined wetlands, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to federally protected wetlands and specific implementation programs identified as mitigation would reduce these impacts to less than significant.

2.4.3.4 Issue 4: Wildlife Movement Corridors and Nursery Sites

<u>Guidelines for Determination of Significance</u>

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would result in a significant impact if it would 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.

Impact Analysis

A system of corridors and linkages has been established in the southwestern portion of the unincorporated County through the MSCP South County Subarea Plan. Core resource areas and linkages have been established in San Dieguito CPA, North County Metro Subregion, Ramona CPA, Lakeside CPA, Crest/Dehesa Subregion, Jamul/Dulzura Subregion, Otay Subregion, Sweetwater CPA, Spring Valley CPA, and Valle de Oro CPA, as shown in Figure 2.4-2. This figure identifies the adopted core areas and linkages in the South County Subarea Plan, and those proposed in the draft North County Plan. No core areas or linkages have been adopted or proposed in the eastern portion of the unincorporated County. As described in Section 1.7.1.1, development under the General Plan Update would be concentrated in the western portion of the County within the SDCWA boundary, primarily where the CPAs and Subregions covered by the South County Subarea Plan are located. Intensified development in these areas would have the potential to result in direct or indirect impacts to the designated core habitat areas and linkages. Direct impacts to wildlife movement corridors generally occur from blockage or interference with the connectivity between blocks of habitat, a decrease in the width of a corridor or linkage that constrains movement, or the loss of visual continuity within a linkage or corridor. For example, new Mobility Element roadways would have the potential to block a connection between two habitats or new development of General Plan Update land uses would have the potential to present a visual barrier that discourages wildlife movement within a linkage or corridor.

Official corridor and linkage designations have not been established outside the South County Subarea Plan boundary; however build-out of the General Plan Update in the northern and eastern areas of the unincorporated County would have the potential to result in direct or indirect impacts to functioning wildlife movement paths and habitat linkages. Intensified development in town centers that are surrounded by habitat, such as the town centers in the Central Mountain and Mountain Empire Subregions, would have the potential to result in disruption of wildlife movement through increased encroachment or fragmentation. Indirect impacts may also occur from increased noise levels or nighttime lighting that would discourage movement within corridors or linkages.

Future development under the General Plan Update would also have the potential to result in a significant impact to nursery sites. Nursery sites are located throughout the unincorporated County and include areas that provide the resources necessary for reproduction of a species, including foraging habitat, breeding habitat, and water sources. Determining whether or not a specific area is a nursery site requires field surveys, which are often only valid for a given breeding season depending on the wildlife species present. As described in Section 2.4.3.1, Issue 1: Special Status Plant and Wildlife Species, the proposed project would result in a potentially significant impact to sensitive natural habitats in the County, and various natural habitats have the potential to include nursery sites. Direct impacts to nursery sites from implementation of the General Plan Update would include removal of habitat for development and infrastructure. Indirect impacts to nursery sites would have the potential to result from noise, lighting, changes in drainage patterns, and introduction of pests or domestic animals. These impacts can substantially interfere with native wildlife nursery sites. Therefore, the proposed project would have the potential to directly or indirectly impact nursery sites.

Federal, State, and Local Regulations and Existing Regulatory Processes

There are a number of federal, State, and local regulations in place to protect wildlife movement corridors in the County. At the State level, the NCCP Act facilitates region-wide conservation efforts. As part of the process in determining natural community conservation areas, wildlife movement corridors are considered. The County has one approved NCCP, which is the MSCP South County Subarea Plan in the southwest portion of the unincorporated County. Regional habitat linkages and corridors have been identified in this conservation plan (see Figure 2.4-2). Pursuant to the BMO, development projects must generally avoid corridors and linkages within the MSCP to the maximum extent practicable.

The County is preparing NCCP plans (north and east) to cover the remaining lands under the County's jurisdiction. Potential habitat linkages and corridors have been identified for the draft North County Plan (see Figure 2.4-2); however, these features will not be formally designated until the plan is adopted. Linkages and corridors have not yet been identified for the draft East County Plan. Until these plans are in effect, the County will continue to use all available biological data and mapping applications to identify potential movement paths and nursery sites. The County's Guidelines for Determining Significance for Biological Resources are then used to evaluate the potential effects of private and public projects on wildlife movement, corridors, and nursery sites.

Proposed General Plan Update Goals and Policies

The General Plan Update includes policies in the Conservation and Open Space Element and Land Use Element that would reduce the potential for adverse impacts to sensitive species. Conservation and Open Space Element Goal COS-1 is a regionally managed, inter-connected preserve system that embodies the regional diversity of the County of San Diego. This goal is supported by Policies COS-1.1 through COS-1.11. Policy COS-1.1 would identify and provide a coordinated biological preserve system that includes Biological Resource Core Areas, wildlife corridors, and linkages to allow wildlife to travel throughout their habitat ranges. Policy COS-1.2 prohibits private development within established preserves. Policy COS-1.3 requires the monitoring, management and maintenance of a regional preserve system to ensure the preservation of special status species. Policies COS-1.4 and COS-1.5 require collaboration with other jurisdictions to achieve resource preservation and management goals. Policies COS-1.6 through COS-1.8 will facilitate preserve assembly and funding. Policy COS-1.9 serves to minimize invasive plants near preserves and removal of invasives within biological preserves. Policy COS-1.10 calls for public involvement in the preparation of habitat conservation plans and resource management plans. Policy COS-1.11 encourages participation of planning groups in preserve management activities.

Goal LU-6 is a built environment in balance with the natural environment, scarce resources, natural hazards, and the unique local character of individual communities. This goal is supported by Policies LU-6.1 and LU-6.7 that support the protection of critical and sensitive natural resources, support the long-term sustainability of the natural environment, and encourage contiguous open space areas that protect wildlife habitat and corridors.

Summary

Implementation of the General Plan Update would have the potential to result in impacts to wildlife movement corridors and the use of native wildlife nursery sites. While existing County

policies and regulations and proposed General Plan Update goals and policies are intended to protect wildlife movement corridors and nursery sites, specific measures that implement these policies and regulations are proposed to ensure that the intended protections are achieved. Therefore, the proposed project is concluded to result in a potentially significant impact to wildlife movement corridors and nursery sites and specific implementation programs are identified as mitigation.

2.4.3.5 Issue 5: Local Policies and Ordinances

Guidelines for Determination of Significance

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would result in a significant impact if it would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Impact Analysis

The County's local policies and ordinances that protect biological resources include the MSCP Plan, RPO, BMO, and HLP Ordinance. As described above under Section 2.4.2, Regulatory Framework, all of these policies and ordinances address the protection of biological resources. As further described above under Issues 1 through 4, development under the General Plan Update has the potential to impact sensitive plant and animal species, riparian and other natural communities, wetlands, and habitat linkages/corridors that are identified for protection under the MSCP Plan, BMO, HLP Ordinance, Southern California Coastal Sage Scrub NCCP Process Guidelines, and the RPO. As part of the General Plan Update, the County would amend the RPO to allow some additional flexibility in project design while maintaining protection of significant natural resources. Other regulatory processes already in place to implement the MSCP, BMO, HLP Ordinance, Southern California Coastal Sage Scrub NCCP Process Guidelines, and RPO would not be modified by the General Plan Update. Future development under the General Plan Update would still be required to comply with these ordinances when applicable. These processes are described in more detail below.

Federal, State, and Local Regulations and Existing Regulatory Processes

There are no State and/or federal regulations that apply to this issue. However, some projects would require consultation with the USFWS and/or the CDFG depending on the resources affected and the jurisdictional regulations in place.

Under existing County regulations and regulatory processes, in order for discretionary projects under the proposed General Plan Update to be approved and developed, they would be required to conform to the County's MSCP and HLP processes and demonstrate compliance with applicable ordinances. If a project site is devoid of native vegetation and supports only urban/developed land, active agriculture, eucalyptus woodland and/or disturbed land, then a biological report would not be necessary (or a minimal survey would be conducted). For projects having other vegetation communities, a biological resource report is requested by the County in order to evaluate them pursuant to the BMO, RPO, HLP Ordinance, and CEQA environmental review requirements.

Projects located within the boundaries of the existing MSCP South County Subarea Plan are reviewed for consistency with the Plan and the BMO. County and public projects such as

infrastructure improvements are also subject to MSCP conformance review. The BMO provides predetermined mitigation ratios, directs mitigation to biological resource core areas, and gives criteria for project design and preserve design in order to be consistent with the MSCP Plan. Application of the BMO to projects within the MSCP Plan boundary ensures that development will not conflict with the provisions of the Subarea Plan. Section 86.503(a) of the BMO lists the types of projects that are exempt from the BMO. While some projects would be exempt from the BMO, they must still conform to the MSCP South County Subarea Plan. If a project is in the County's adopted Subarea Plan, MSCP Conformance Findings must be prepared for the project based on both MSCP and BMO standards.

Outside of the MSCP South County Subarea Plan boundary, the Southern California Coastal Sage Scrub NCCP is in effect. This program enables the County to benefit from interim take provisions established in the USFWS special rule (4[d] rule). The interim take refers to the authorization for removal of coastal sage scrub and/or any incidental impacts to target species (such as coastal California gnatcatcher and orange-throated whiptail) if achieved in accordance with findings set forth in the NCCP Process Guidelines. Application of the NCCP Process Guidelines and the HLP Ordinance to projects with the potential to impact coastal sage scrub ensures that development will not conflict with the provisions of the Southern California Coastal Sage Scrub NCCP program. This interim process is proposed to be replaced with established MSCP Plans for North County and East County. Until then, authorization to impact coastal sage scrub is issued in the form of a HLP. For projects that will affect coastal sage scrub, NCCP 4(d) findings must be made to the satisfaction of the USFWS and the CDFG.

Additionally, future proposed projects requiring certain permit types such as TMs, TPMs, rezones, MUPs, and site plans, would be subject to the requirement to prepare a Resource Protection Study under the RPO. The RPO restricts to varying degrees impacts to natural resources including wetlands, wetland buffers, floodplains, steep slopes, and sensitive habitat lands. Additional local policies and ordinances discussed above in Section 2.4.2.3 that protect biological resources include the Zoning Ordinance Special Area Regulations and BOS Policy I-123.

Proposed General Plan Update Goals and Policies

The General Plan Update includes policies in the Conservation and Open Space Element intended to ensure compliance with local policies and ordinances. Conservation and Open Space Element Policy COS-1.2 would prohibit private development within established habitat preserves. Conservation and Open Space Element Policy COS-1.3 requires the monitoring, management and maintenance of a regional preserve system, such as the MSCP preserves, to ensure the preservation of special status species. Policy COS-1.9 serves to minimize invasive plants near preserves and promotes the removal of invasive species within biological preserves.

Summary

Future projects proposed under the General Plan Update would be required to comply with applicable local policies and ordinances. Regulatory processes to ensure compliance are already in place and would not be impacted by the General Plan Update. Therefore, a potentially significant impact associated with conflicts with local policies and ordinances would not occur.

2.4.3.6 Issue 6: Habitat Conservation Plans and NCCPs

Guidelines for Determination of Significance

Based on Appendix G of the CEQA Guidelines, the proposed County General Plan Update would result in a significant impact if it would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan.

Impact Analysis

An MSCP Plan is a combined HCP and NCCP. The MSCP South County Subarea Plan and the Coastal Sage Scrub NCCP Process Guidelines are the applicable HCPs and NCCPs for the unincorporated County. The BMO implements the South County Subarea Plan. As discussed above in Section 2.4.3.5, Issue 5: Local Policies and Ordinances, future development would be required to comply with the MSCP Plan, BMO, and the Coastal Sage Scrub NCCP Process Guidelines.

Additional adopted NCCPs and HCPs are located within the County of San Diego, but apply to other agency/special district activities. Two examples of adopted NCCPs or HCPs in the County are the SDG&E Company Subregional Plan and the Sweetwater River HCP. Future development in areas where adopted NCCPs and HCPs exist would comply with the applicable plan, as required by the CDFG or USFWS. The NCCP/HCP Plan for SDG&E, approved in 1995, encompasses SDG&E's jurisdiction within the entire unincorporated County west of the Anza-Borrego Desert and applies only to projects proposed by SDG&E or on SDG&E property rights-of-way and/or easements. The project covers 110 plant and animal species and emphasizes avoidance of impacts. The plan establishes mitigation requirements, which would have the potential to include revegetation or use of up to 240 acres of mitigation credits set aside in several land parcels purchased by SDG&E as mitigation banks (DFG 2008b). Future development under the General Plan Update on land covered by the SDG&E NCCP would be required to comply with the adopted mitigation requirements. The Sweetwater River HCP, published in 1991, was prepared as part of the Comprehensive Species Management Plan (CSMP) for the endangered least Bell's vireo. The HCP identifies riparian habitat to be protected, conserved, managed, and reclaimed to ensure protection and recovery of the species within the focused planning area. This area generally includes the 100-yr floodplain plus a 150-foot buffer of the Sweetwater River from San Diego Bay to the Loveland Reservoir (CRA 2008). Future development accommodated by General Plan Update in this planning area would be required to comply with the HCP. Additional NCCPs and HCPs are being prepared and undergoing review process for adoption by CDFG, such as the San Diego Joint Water Agencies NCCP. Future development under the General Plan Update with the participating jurisdictions would be required to comply with all applicable NCCPs and HCPs that have been adopted at the time the development is proposed.

Federal, State, and Local Regulations and Existing Regulatory Processes

There are numerous federal, State and local regulations in place to ensure that adopted HCPs, NCCPs, and other conservation plans are successful. The federal ESA provides the basis for preparing a Habitat Conservation Plan in Section 10 for the purpose of issuing incidental take permits. Each HCP includes a method for monitoring and evaluating its success. The HCP Handbook released in November 1996 establishes the general process. The addendum to the HCP handbook, provided in 2000, expanded upon the process to include biological goals and

adaptive management strategies. Such strategies have also been included in the State NCCP process.

The MSCP Plan, BMO, and the Coastal Sage Scrub NCCP Process Guidelines and associated regulatory processes are described above in Section 2.4.3.5, Issue 5: Local Policies and Ordinances.

Proposed General Plan Update Goals and Policies

Some General Plan Update policies intended to ensure compliance with the applicable HCPs and NCCPs are listed in Section 2.4.3.5, Issue 5: Local Policies and Ordinances. These policies are Policy COS-1.2, Policy COS-1.3, and Policy COS-1.9. In addition, Policies COS-1.4 and COS-1.5 require collaboration with other jurisdictions to achieve resource preservation and management goals. Policies COS-1.6 through COS-1.8 will facilitate preserve assembly and funding. Policy COS-1.10 calls for public involvement in the preparation of habitat conservation plans and resource management plans.

Summary

Future projects proposed under the General Plan Update would be required to comply with applicable HCPs and NCCPs. Regulatory processes to ensure compliance are already in place and would not be impacted by the General Plan Update. Therefore, a potentially significant impact associated with conflicts with HCPs and NCCPs would not occur.

2.4.4 Cumulative Impact Analysis

The cumulative analysis for biological resources first identifies the geographic area within which the resource has the potential to occur. Therefore, the geographic scope for the biological resources cumulative analysis is the San Diego region, including both incorporated and unincorporated areas, and surrounding Counties.

2.4.4.1 Issue 1: Special Status Plant and Wildlife Species

Cumulative projects located in the San Diego region would have the potential to result in impacts to special status plant and wildlife species, including loss of habitat. Several of the cumulative projects listed in Table 1-11 are large developments that are planned within undeveloped areas and would likely result in loss of habitat or edge effects that would significantly impact special status plant and wildlife species. One such example is the Warner Ranch project in the Pala/Pauma Valley Subregion which proposes 900 new residential units. Adjacent jurisdictions, including incorporated cities, adjacent counties, tribal governments, and federal and State-managed lands would be required to comply with applicable federal and/or State regulations that provide protections for special status plant and wildlife species such as the Federal ESA, the CESA, and the California NCCP Act. In addition, some projects that affect special status species require approval from the USFWS and the CDFG. If significant impacts occur from particular cumulative projects, then mitigation measures are usually implemented to reduce impacts to the extent feasible. However, without a comprehensive NCCP in place for the long-term protection of special status plant and wildlife species for the entire southern California region, a cumulative loss of habitat supporting special status plant and wildlife species would occur, even after mitigation has been implemented for individual projects. Therefore, a

significant cumulative impact associated with special status plant and wildlife species would occur.

As discussed in Section 2.4.3.1 above, development and redevelopment under the proposed General Plan Update would have the potential to impact special status species. The County has adopted an MSCP South County Subarea Plan for the southwestern portion of the County, but is still developing MSCP Plans for North County and East County areas. Therefore, until the County has adopted the North County and East County Plans, the proposed project's contribution, in combination with other cumulative projects, would be cumulatively considerable.

2.4.4.2 Issue 2: Riparian Habitat and Other Sensitive Natural Communities

Cumulative projects located in the San Diego region have the potential to result in impacts associated with riparian habitat and other sensitive natural communities through direct and indirect loss or degradation. For example, some of the cumulative projects listed in Table 1-11 are large developments in undisturbed areas that affect riparian habitat. One such project is Jacumba Valley Ranch in the Mountain Empire Subregion, which proposes 2,125 new residential units. Adjacent jurisdictions, including incorporated cities, adjacent counties, and federal and State-managed lands, would be required to comply with applicable federal and/or State regulations such as the California Lake and Streambed Alteration Program or the California NCCP Act. These programs provide protections for riparian and other sensitive habitats. In addition, many projects that affect riparian or other protected habitat types require approval from the USFWS and the CDFG. If potentially significant impacts would occur from particular cumulative projects, then mitigation measures would be implemented to reduce impacts to the extent feasible. However, without a comprehensive NCCP in place for the long-term protection of sensitive natural communities for the entire southern California region, a cumulative loss of riparian and other sensitive habitat would occur, even after mitigation has been implemented for individual projects. Therefore, a significant cumulative impact associated with special status plant and wildlife species would occur.

As discussed in Section 2.4.3.2 above, development and redevelopment under the proposed General Plan Update would have the potential to impact riparian and other sensitive habitats. The County has adopted the MSCP South County Subarea Plan for the southwestern portion of the County, but is still developing MSCP Plans for the North County and East County. Therefore, until the County has adopted the North County and East County Plans, the proposed project's contribution, in combination with other cumulative projects, would be cumulatively considerable.

2.4.4.3 Issue 3: Federally Protected Wetlands

Cumulative projects located in the San Diego region would have the potential to result in a cumulative impact associated with federally protected wetlands. For example, several cumulative projects listed in Table 1-11, Projects Not Included In the Proposed General Plan Update Land Use Map, are large developments in previously undeveloped areas that would have the potential to result in disturbances to federally protected wetlands. One example is the Rancho Lilac project in Valley Center CPA which proposes 360 new residential units in an area with potential to contain federally protected wetlands. Adjacent jurisdictions, including incorporated cities, adjacent counties, tribal lands, and federal and State-managed lands, would

be required to comply with applicable federal regulations such as Section 401 and 404 of the CWA. If potentially significant impacts would occur from particular cumulative projects, then mitigation measures would be implemented to reduce impacts to the extent feasible to meet the no-net-loss standard. Existing regulations would ensure that a significant cumulative impact associated with federally protected wetlands would not occur. Therefore, the proposed project would not contribute to a significant cumulative impact.

2.4.4.4 Issue 4: Wildlife Movement Corridors and Nursery Sites

Cumulative projects located in the San Diego region would have the potential to result in a cumulative impact associated with wildlife movement corridors and nursery sites. For example, development of the proposed transportation projects listed in Table 1-8, 2030 San Diego Regional Transportation Plan Projects, such as the proposed high occupancy vehicle connector between the I-15 and SR-94, would have the potential to block an existing wildlife movement corridor or remove habitat used as a nursery site. Adjacent jurisdictions, including incorporated cities, adjacent counties, and federal and State-managed lands would be required to comply with applicable federal and/or State regulations such as the California NCCP Act. If potentially significant impacts would occur from particular cumulative projects, then mitigation measures would be implemented to reduce impacts to the extent feasible. However, without a comprehensive NCCP in place for the long-term protection of wildlife movement corridors and nursery sites for the entire southern California region, a cumulative loss of wildlife movement corridors and nursery sites would occur, even after mitigation has been implemented for individual projects. Therefore, a significant cumulative impact associated with wildlife movement corridors and nursery sites would occur.

As discussed in Section 2.4.3.4 above, the General Plan Update would have the potential to impact wildlife movement corridors and nursery sites. The County has adopted an MSCP South County Subarea Plan for the southwestern portion of the County, but is still developing MSCP Plans for the North County and East County. Therefore, until the County has adopted the North County and East County Plans, the proposed project's contribution, in combination with other cumulative projects, would be cumulatively considerable.

2.4.4.5 Issue 5: Local Policies and Ordinances

Cumulative projects under the County's jurisdiction are required to comply with applicable local policies and ordinances, such as the MSCP Plan or the Southern California Coastal Sage Scrub NCCP Process Guidelines, in order for such projects to be approved. For example, the cumulative projects in the unincorporated County listed in Table 1-11, Projects Not Included In The Proposed General Plan Update Land Use Map, are subject to local County of San Diego policies and ordinances. However, it cannot be determined with certainty that regional projects in other jurisdictions would conform to applicable local ordinances.

As discussed in 2.4.3.5 above, the proposed General Plan Update would not be in conflict with any local policies or ordinances as the County is ensuring consistency among its regulations during this comprehensive update. Therefore, the proposed project would not contribute to a significant cumulative impact.

2.4.4.6 Issue 6: Habitat Conservation Plans and NCCPs

Cumulative projects in the San Diego region are required to comply with applicable HCPs or NCCPs, such as the San Diego MSCP or the Southern California Coastal Sage Scrub NCCP. For example, many of the cumulative projects listed in Table 1-11, Projects Not Included In The Proposed General Plan Update Land Use Map, are located in the MSCP South County Subarea Plan and are therefore required to make findings of conformance with the MSCP and BMO. However, it cannot be determined with certainty that regional projects in other jurisdictions would take steps to prevent conflicts with federal and State HCP and NCCP agreements.

As discussed in 2.4.3.6 above, the proposed General Plan Update would not be in conflict with any known HCPs or NCCPs. Therefore, the proposed project would not contribute to a significant cumulative impact.

2.4.5 Significance of Impact Prior to Mitigation

The proposed project would result in potentially significant impacts associated with biological resources including special status species, riparian and other sensitive natural communities, federally protected wetlands, and wildlife movement corridors. The proposed project would not result in potentially significant impacts to local policies and ordinances or to HCPs and NCCPs.

2.4.6 Mitigation

2.4.6.1 Issue 1: Special Status Species

The General Plan Update policies and mitigation measures provided below under the Mitigation Measures section would minimize the proposed project's potentially significant impact associated with special status species and their habitats. However, even with mitigation measures in place, implementation of the General Plan Update would allow land uses and development to occur in areas outside of an adopted regional conservation plan, thereby resulting in direct, indirect, and cumulative impacts to species identified as a candidate, sensitive, or special status species. The General Plan Update policies and feasible mitigation measures described below would be implemented to reduce impacts associated with special status species and their habitats; however, not to below a significant level. An additional mitigation measure has been identified that would fully reduce impacts to below a level of significance; however, the County has determined that its implementation would be infeasible. A discussion of infeasible mitigation measure, as well as General Plan policies and feasible mitigation measures is provided below.

<u>Infeasible Mitigation Measures</u>

The following measure was considered in attempting to reduce impacts to special status species to below a level of significance. However, the County has determined that this measure could not be assured in the Mitigation, Monitoring, and Reporting Program as described below; therefore, this measure cannot be included as mitigation for the General Plan Update.

- Adopt MSCP Plans for North County and East County that provide coverage for special status species as well as protections for wildlife corridors, habitat linkages, and core habitat areas in those regions. This measure is feasible and attainable as the County is

currently in the process of preparing such plans. However, these conservation plans require approval at the federal and State levels, which the County cannot guarantee ahead of time. In addition, the timing of these programs (i.e., MSCP adoption and implementation) may not coincide with General Plan Update impacts in these areas. Therefore, this measure cannot be considered feasible mitigation for the proposed project.

Because the measure listed above has been found to be infeasible, impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with special status species and their habitats as compared to the proposed project.

General Plan Update Policies

The following policies would reduce impacts associated with special status species, although not to below a significant level.

Policy COS-1.3: Management. Monitor, manage and maintain the regional preserve system facilitating the survival of native species and the preservation of healthy populations of rare, threatened, or endangered species.

Policy COS-1.6: Assemblage of Preserve Systems. Support the proactive assemblage of a biological preserve system to protect biological resources and to facilitate development through mitigation banking opportunities.

Policy COS-1.7: Preserve System Funding. Provide adequate funding for assemblage, management, maintenance, and monitoring through coordination with other jurisdictions and agencies.

Policy COS-1.8: Preserve Assemblage. Support the acquisition of large tracts of land that have multiple resource preservation benefits, such as biology, hydrology, cultural, aesthetics, and community character. Establish funding mechanisms to serve as an alternative when mitigation requirements would not result in the acquisition of large tracts of land.

Policy COS-1.9: Invasive Species. Require new development adjacent to biological preserves to use non-invasive plants in landscaping. Encourage the removal of invasive plants within preserves.

Policy COS-1.10: Public Involvement. Ensure an open, transparent, and inclusive decision-making process by involving the public throughout the course of planning and implementation of habitat conservation plans and resource management plans.

Policy COS-1.11: Volunteer Preserve Monitor. Encourage the formation of volunteer preserve managers that are incorporated into each community planning group to supplement professional enforcement staff.

Policy COS-2.1: Protection, Restoration and Enhancement. Protect and enhance natural wildlife habitat outside of preserves as development occurs according to the underlying land use designation. Limit the degradation of regionally important natural habitats within the Semi-Rural and Rural Lands regional categories, as well as within Village lands where appropriate.

Policy COS-2.2: Habitat Protection through Site Design. Require development to be sited in the least biologically sensitive areas and minimize the loss of natural habitat through site design.

Policy LU-6.1: Environmental Sustainability. Require the protection of intact or sensitive natural resources in support of the long-term sustainability of the natural environment.

Policy LU-6.2: Reducing Development Pressures. Assign lowest-density or lowest-intensity land use designations to areas with sensitive natural resources.

Policy LU-6.3: Conservation-Oriented Project Design. Support conservation-oriented project design when appropriate and consistent with the applicable Community Plan. This can be achieved with mechanisms such as, but not limited to, Specific Plans, lot area averaging, and reductions in lot size with corresponding requirements for preserved open space (Planned Residential Developments). Projects that rely on lot size reductions should incorporate specific design techniques, perimeter lot sizes, or buffers, to achieve compatibility with community character.

Policy LU-6.4: Sustainable Subdivision Design. Require that residential subdivisions be planned to conserve open space and natural resources, protect agricultural operations including grazing, increase fire safety and defensibility, reduce impervious footprints, use sustainable development practices, and, when appropriate, provide public amenities consistent with the applicable community plan.

Policy LU-6.6: Integration of Natural Features into Project Design. Require incorporation of natural features (including mature oaks, indigenous trees, and rock formations) into proposed development and require avoidance of sensitive environmental resources.

Policy LU-6.7: Open Space Network. Require projects with open space to design contiguous open space areas that protect wildlife habitat and corridors; preserve scenic vistas and areas; and connect with existing or planned recreational opportunities.

Policy LU-10.2: Development-Environmental Resource Relationship. Require development in Semi-Rural and Rural areas to respect and conserve the unique natural features and rural character, and avoid sensitive or intact environmental resources and hazard areas.

Mitigation Measures

The following mitigation measures would reduce impacts associated with special status species, although not to below a significant level.

Bio-1.1 Create a Conservation Subdivision Program that facilitates conservation-oriented project design through changes to the Subdivision Ordinance, Resource Protection Ordinance, Zoning Ordinance, Groundwater Ordinance, and other regulations as necessary. It is intended that these changes will promote conservation of natural resources and open space while improving mechanisms for flexibility in project design so that production of housing stock is not negatively impacted. Additionally, any such allowances of

flexibility must be done with consideration of community character through planning group coordination and/or findings required for project approval.

Bio-1.2 Implement and revise existing Habitat Conservation Plans/Policies to preserve sensitive resources within a cohesive system of open space. In addition, continue preparation of MSCP Plans for North County and East County.

Bio-1.3 Implement conservation agreements through Board Policy I-123, as this will facilitate preservation of high-value habitat in the County's MSCP Subarea Plan.

Bio-1.4 Coordinate with nonprofit groups and other agencies to acquire preserve lands.

Bio-1.5 Utilize County Guidelines for Determining Significance for Biological Resources to identify adverse impacts to biological resources. Also utilize the County's Geographic Information System (GIS) records and the Comprehensive Matrix of Sensitive Species to locate special status species populations on or near project sites. This information will be used to avoid or mitigate impacts as appropriate.

Bio-1.6 Implement the RPO, BMO, and HLP Ordinance to protect wetlands, wetland buffers, sensitive habitat lands, biological resource core areas, linkages, corridors, high-value habitat areas, subregional coastal sage scrub focus areas, and populations of rare, or endangered plant or animal species.

Bio-1.7 Minimize edge effects from development projects located near sensitive resources by implementing the County Noise Ordinance, the County Groundwater Ordinance, the County's Landscaping Regulations (currently part of the Zoning Ordinance), and the County Watershed Protection, Storm Water Management, and Discharge Control Ordinance.

2.4.6.2 Issue 2: Riparian Habitat and Other Sensitive Natural Communities

The General Plan Update policies and mitigation measures provided below would minimize the proposed project's potentially significant impacts associated with the riparian habitat and sensitive natural communities. However, even with mitigation measures in place, implementation of the General Plan Update would allow land uses and development to occur in areas outside of any adopted regional conservation plan, thereby resulting in direct, indirect, and cumulative impacts to sensitive habitats. The General Plan Update policies and feasible mitigation measures described below would be implemented to reduce impacts associated with riparian and other sensitive natural communities; however, not to below a significant level.

As described above in Section 2.4.6.1, an additional mitigation measure was considered in attempting to reduce impacts associated with riparian and other sensitive natural communities to a less than significant level; however, the County determined that this measure would be infeasible for the reasons outlined above. Therefore, the infeasible mitigation measure identified in Section 2.4.6.1 would not be implemented as part of the General Plan Update

project, and impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with riparian and other sensitive natural communities as compared to the proposed project.

General Plan Update Policies

The policies listed under Section 2.4.6.1 for Issue 1 are applicable to sensitive natural communities and are incorporated here by reference. In addition, the following policy would reduce direct and indirect project impacts to riparian habitat, although not to below a significant level.

COS-3.1: Wetland Protection. Require development to preserve existing natural wetland areas and associated transitional riparian and upland buffers and retain opportunities for enhancement.

Mitigation Measures

The mitigation measures listed under Section 2.4.6.1 for Issue 1 are applicable to sensitive natural communities and are incorporated here by reference. In addition, the following measures would further reduce direct and indirect project impacts to riparian and other sensitive habitats, although not to below a significant level.

Bio-2.1 Revise the Ordinance Relating to Water Conservation for Landscaping to incorporate appropriate plant types and regulations requiring planting of native or compatible non-native, non-invasive plant species in new development.

Bio-2.2 Require that development projects obtain CWA Section 401/404 permits issued by the California Regional Water Quality Control Board and U.S. Army Corps of Engineers for all project-related disturbances of waters of the U.S. and/or associated wetlands. Also continue to require that projects obtain Fish and Game Code Section 1602 Streambed Alteration Agreements from the California Department of Fish and Game for all project-related disturbances of streambeds.

Bio-2.3 Ensure that wetlands and wetland buffer areas are adequately preserved whenever feasible to maintain biological functions and values.

Bio-2.4 Implement the Watershed Protection, Storm Water Management, and Discharge Control Ordinance to protect wetlands.

2.4.6.3 Issue 3: Federally Protected Wetlands

The following General Plan Policies and mitigation measures would reduce impacts to federally protected wetlands to a less than significant level.

General Plan Update Policies

Policy COS-3.1: Wetland Protection. Require development to preserve existing natural wetland areas and associated transitional riparian and upland buffers and retain opportunities for enhancement.

Policy COS-3.2: Minimize Impacts of Development. Require development projects to:

- Mitigate any unavoidable losses of wetlands, including its habitat functions and values; and
- Protect wetlands, including vernal pools, from a variety of discharges and activities, such as dredging or adding fill material, exposure to pollutants such as nutrients, hydromodification, land and vegetation clearing, and the introduction of invasive species.

Mitigation Measures

Mitigation measures Bio-1.1, Bio-1.5, Bio-1.6, Bio-1.7, Bio-2.2, Bio-2.3, and Bio-2.4 described above in Sections 2.4.6.1 and 2.4.6.2 would mitigate impacts to federally protected wetlands to a less than significant level and are incorporated here by reference.

2.4.6.4 Issue 4: Wildlife Movement Corridors and Nursery Sites

The General Plan Update policies and mitigation measures provided below would minimize the proposed project's potentially significant impacts associated with wildlife movement corridors and nursery sites. However, even with mitigation measures in place, implementation of the General Plan Update would allow land uses and development to occur in areas outside of an adopted regional conservation plan, thereby resulting in direct, indirect, and cumulative impacts to corridors, linkages, and nursery sites. The General Plan Update policies and feasible mitigation measures described below would be implemented to reduce impacts associated with wildlife movement corridors and nursery sites; however, not to below a significant level.

As described above in Section 2.4.6.1, an additional mitigation measure was considered in attempting to reduce impacts associated with wildlife corridors and nursery sites to a less than significant level; however, the County determined that this measure would be infeasible for the reasons outlined above. Therefore, the infeasible mitigation measure identified in Section 2.4.6.1 would not be implemented as part of the General Plan Update project, and impacts would remain significant and unavoidable. Chapter 4.0, Project Alternatives, provides a discussion of several land use alternatives to the proposed project that would result in some reduced impacts associated with wildlife corridors and nursery sites as compared to the proposed project.

General Plan Update Policies

Policy COS-1.1: Coordinated Preserve System. Identify and develop a coordinated biological preserve system that includes Pre Approved Mitigation Areas, Biological Resource Core Areas, wildlife corridors, and linkages to allow wildlife to travel throughout their habitat ranges.

Policy COS-1.2: Minimize Impacts. Prohibit private development within established preserves. Minimize impacts within established preserves when the construction of public infrastructure is unavoidable.

Policy COS-1.3. Management. Monitor, manage and maintain the regional preserve system facilitating the survival of native species and the preservation of healthy populations of rare, threatened, or endangered species.

Policy COS-1.4: Collaboration with Other Jurisdictions. Collaborate with other jurisdictions and trustee agencies to achieve well-defined common resource preservation and management goals.

Policy COS-1.5: Regional Funding. Collaborate with other jurisdictions and federal, state, and local agencies to identify regional, long-term funding mechanisms that achieve common resource management goals.

Policy LU-6.1: Environmental Sustainability. Require the protection of intact or sensitive natural resources in support of the long-term sustainability of the natural environment.

Policy LU-6.7: Open Space Network. Require projects with open space to design contiguous open space areas that protect wildlife habitat and corridors; preserve scenic vistas and areas; and connect with existing or planned recreational opportunities.

Mitigation Measures

Mitigation measures Bio-1.1, Bio-1.2, Bio-1.3, Bio-1.4, Bio-1.5, Bio-1.6, Bio-1.7 and Bio-2.3 as described above would reduce impacts to wildlife corridors and nursery sites and are incorporated here by reference; however, impacts would not be reduced to a level less than significant.

2.4.6.5 Issue 5: Local Policies and Ordinances

Impacts associated with conflicts with local policies and ordinances would be less than significant; therefore, mitigation is not required.

2.4.6.6 Issue 6: Habitat Conservation Plans and NCCPs

Impacts associated with conflicts with HCPs and NCCPs would be less than significant; therefore, mitigation is not required.

2.4.7 Conclusion

The discussion below provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would occur after mitigation measures are implemented.

2.4.7.1 Issue 1: Special Status Species

Implementation of the proposed General Plan Update would have the potential to directly and indirectly result in the loss of special status species. Therefore, the proposed project would result in a potentially significant impact to these resources. Implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would reduce proposed project impacts. However, proposed impacts associated with special status species would not be mitigated to below a level of significance and would remain significant and unavoidable. Additionally, the proposed project would result in a cumulatively considerable contribution to a significant cumulative impact associated with special status species and their habitats.

2.4.7.2 Issue 2: Riparian Habitat and Other Sensitive Natural Communities

Implementation of the proposed General Plan Update would have the potential to result in direct and indirect impacts to riparian habitat and other sensitive natural communities. Therefore, the proposed project would result in a potentially significant impact to these resources. Implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would reduce proposed project impacts. However, proposed impacts associated with riparian habitat and other sensitive natural communities would not be mitigated to below a level of significance and would remain significant and unavoidable. Additionally, the proposed project would result in a cumulatively considerable contribution to a significant cumulative impact associated with riparian habitat and other sensitive natural communities.

2.4.7.3 Issue 3: Federally Protected Wetlands

Implementation of the proposed General Plan Update would have the potential to result in a potentially significant direct impact to federally protected wetlands. However, implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would mitigate the impacts to below a level of significance. Additionally, the proposed project would not contribute to a significant cumulative impact.

2.4.7.4 Issue 4: Wildlife Movement Corridors and Nursery Sites

Implementation of the proposed General Plan Update would have the potential to impact wildlife movement corridors. Therefore, the proposed project would result in a potentially significant impact. Implementation of the proposed General Plan Update policies and mitigation measures, in addition to compliance with applicable regulations, would reduce proposed project impacts. However, proposed impacts associated with wildlife movement corridors and nursery sites would not be mitigated to below a level of significance and would remain significant and unavoidable. Additionally, the proposed project would result in a cumulatively considerable contribution to a significant cumulative impact associated with wildlife movement corridors and nursery sites.

2.4.7.5 Issue 5: Local Policies and Ordinances

Implementation of the proposed General Plan Update would not conflict with local biological resources related policies and ordinances. Therefore, the proposed project would not result in a significant impact to local policies and ordinances. Additionally, the proposed project would not contribute to a significant cumulative impact.

2.4.7.6 Issue 6: Habitat Conservation Plans and NCCPs

Implementation of the proposed General Plan Update would not conflict with any applicable HCP or NCCP. Therefore, the proposed project would not result in a significant impact. Additionally, the proposed project would not contribute to a significant cumulative impact.

Table 2.4-1. Total Habitat Impacts by CPA and Subregion

CPA/Subregion	Total Acres Impacted
Alpine CPA Total	5,975
Bonsall CPA Total	6,503
Central Mountain Subregion Total	4,640
Cuyamaca Total	1,242
Descanso Total	1,138
Pine Valley Total	1,743
Central Mountain Remainder	517
County Islands CPA Total	32
Crest/Dehesa Subregion Total	3,999
Desert Subregion Total	19,030
Borrego Springs Total	15,182
Desert Remainder Total	3,848
Fallbrook CPA Total	8,626
Jamul/Dulzura Subregion Total	12,832
Julian CPA Total	6,125
Lakeside CPA Total	6,828
Mountain Empire Subregion Total	15,617
Boulevard Total	3,689
Jacumba Total	2,781
Lake Morena/Campo Total	4,980
Potrero Total	2,901
Tecate Total	818
Mountain Empire Remainder Total	438
North County Metro Subregion Total	12,947
Hidden Meadows Total	4,006
Twin Oaks Total	2,156
North County Metro Remainder Total	6,793
North Mountain Subregion Total	14,390
Palomar Mountain	1,871
North Mountain Remainder Total	12,519
Otay Subregion Total	3,861
Pala/Pauma Subregion Total	9,798
Pendleton/De Luz CPA Total	2,246
Rainbow CPA Total	2,102
Ramona CPA Total	15,245
San Dieguito CPA Total	6,894
Spring Valley CPA Total	756
Sweetwater CPA Total	858
Valle De Oro CPA Total	1,199
Valley Center CPA Total	14,259
Countywide Total	**174,750**

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

Table 2.4-2. Countywide Habitat Impacts by Vegetation Community

Habitat Impacted	Total Acres Impacted
Chaparral	55,058
Diegan Coastal Sage Scrub	31,186
Non-Native Grassland	14,005
Sonoran Creosote Bush Scrub	10,775
Coast Live Oak Woodland	9,601
Field/Pasture	8,410
Lower Montane Coniferous Forest	5,293
Red Shank Chaparral	4,325
Native Grassland	4,233
Engelmann Oak Woodland	3,261
Southern Coast Live Oak Riparian Forest	3,085
Desert Saltbush Scrub	3,030
Coastal Sage-Chaparral Scrub	2,864
Sonoran Desert Mixed Scrub	2,287
Semi-Desert Chaparral	1,952
Foothill/Mountain Perennial Grassland	1,443
Mixed Oak Woodland	1,389
Southern Cottonwood-willow Riparian Forest	1,206
Southern Riparian Scrub	965
Flat-topped Buckwheat	711
Mesquite Bosque	613
Mixed Evergreen Forest	610
Southern Sycamore-alder Riparian Woodland	595
Black Oak Woodland	548
Encelia Scrub	503
Great Basin Scrub	433
Freshwater	420
Montane Chaparral	414
Southern Willow Scrub	396
Alkali Seep	340
Southern Riparian Forest	337
Southern Maritime Chaparral	337
Non-Vegetated Channel, Floodway, Lakeshore Fringe	292
Desert Dry Wash Woodland	259
Disturbed Wetland	60
Colorado Desert Wash Scrub	212
Coast Live Oak Forest	206
Upper Sonoran Ceanothus Chaparral	200
Wet Montane Meadow	194
Scrub Oak Chaparral	186
Alkali Playa Community	185
Mule Fat Scrub	170

Table 2.4-2 (Continued)

Habitat Impacted	Total Acres Impacted
Peninsular Pinon and Juniper Woodlands	161
Freshwater Seep	152
Undifferentiated Open Woodland	150
Acacia Scrub	142
Mafic Chaparral	141
Mojavean Desert Scrub	128
Desert Dunes	74
Desert Sink Scrub	126
Freshwater Marsh	120
Sonoran Wash Scrub	119
Jeffrey Pine Forest	104
Upper Sonoran Subshrub Scrub	102
Alluvial Fan Scrub	77
Black Oak Forest	70
Alkali Marsh	47
Meadow and Seep	46
White Alder Riparian Forest	34
Montane Meadow	30
Dry Montane Meadows	29
Tamarisk Scrub	29
Coastal Scrub	22
Riparian Woodlands	22
Interior Live Oak Chaparral	18
Southern Interior Cypress Forest	17
Riversidian Sage Scrub	16
Oak Woodland	15
Riparian Forests	13
Vernal Pool	12
Open Water	11
Maritime Succulent Scrub	6
Southern Arroyo Willow Riparian Forest	5
Alkali Meadows and Seeps	3
Riparian and Bottomland Habitat	3
Coast Range, Klamath and Peninsular Coniferous Forest	2
Stabilized Alkaline Dunes	2
Estuarine	1

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

Table 2.4-3. Total Impacts to Riparian Habitat by CPA or Subregion

CPA/Subregion	Total Acres Impacted
Alpine CPA Total	454
Bonsall CPA Total	543
Central Mountain Subregion Total	175
Cuyamaca Total	27
Descanso Total	50
Pine Valley Total	85
Central Mountain Subregion - Remainder Total	13
County Islands CPA Total	5
Crest/Dehesa Subregion Total	526
Desert Subregion Total	1,357
Borrego Springs Total	1,006
Desert Subregion - Remainder Total	351
Fallbrook CPA Total	1,176
Jamul/Dulzura Subregion Total	562
Julian CPA Total	172
Lakeside CPA Total	486
Mountain Empire Subregion Total	885
Boulevard Total	113
Jacumba Total	408
Lake Morena/Campo Total	220
Potrero Total	114
Tecate Total	2
Mountain Empire Subregion - Remainder Total	28
North County Metro Subregion Total	752
Hidden Meadows Total	129
Twin Oaks Total	84
North County Metro Subregion - Remainder Total	539
North Mountain Subregion Total	634
Palomar Mountain Total	131
North Mountain Subregion - Remainder Total	503
Otay Subregion Total	59
Pala/Pauma Subregion Total	396
Pendleton/De Luz CPA Total	169
Rainbow CPA Total	67
Ramona CPA Total	636
San Dieguito CPA Total	335
Spring Valley CPA Total	53
Sweetwater CPA Total	75
Valle De Oro CPA Total	112
Valley Center CPA Total	502
Countywide Total	**10,131**

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

Table 2.4-4. Total Impacts to Riparian Vegetation Communities

Vegetation Community Impacted	Total Acres Impacted
Southern Coast Live Oak Riparian Forest	3,085
Southern Cottonwood-willow Riparian Forest	1,206
Southern Riparian Scrub	965
Mesquite Bosque	613
Southern Sycamore-alder Riparian Woodland	595
Freshwater	420
Southern Willow Scrub	396
Alkali Seep	340
Southern Riparian Forest	337
Non-Vegetated Channel, Floodway, Lakeshore Fringe	292
Desert Dry Wash Woodland	259
Disturbed Wetland	60
Colorado Desert Wash Scrub	212
Wet Montane Meadow	194
Alkali Playa Community	185
Mule Fat Scrub	170
Freshwater Seep	152
Desert Sink Scrub	126
Freshwater Marsh	120
Sonoran Wash Scrub	119
Alkali Marsh	47
Meadow and Seep	46
White Alder Riparian Forest	34
Montane Meadow	30
Dry Montane Meadows	29
Tamarisk Scrub	29
Riparian Woodlands	22
Riparian Forests	13
Vernal Pool	12
Open Water	11
Southern Arroyo Willow Riparian Forest	5
Alkali Meadows and Seeps	3
Riparian and Bottomland Habitat	3
Estuarine	1
Countywide Total	**10,131**

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

Table 2.4-5. Natural Vegetation Communities Potentially Containing Federally Protected Wetlands

Habitat Community
Open Water
Freshwater
Meadow and Seep
Montane Meadow
Wet Montane Meadow
Dry Montane Meadows
Alkali Meadows and Seeps
Alkali Seep
Freshwater Seep
Alkali Marsh
Freshwater Marsh
Riparian and Bottomland Habitat
Riparian Forests
Southern Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Arroyo Willow Riparian Forest
Southern Cottonwood-willow Riparian Forest
White Alder Riparian Forest
Sonoran Cottonwood-willow Riparian Forest
Mesquite Bosque
Riparian Woodlands
Desert Dry Wash Woodland
Southern Sycamore-alder Riparian Woodland
Southern Riparian Scrub
Mule Fat Scrub
Southern Willow Scrub
Great Valley Willow Scrub

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

Table 2.4-6. Potential Impacts to Federally Protected Wetlands by CPA or Subregion

CPA or Subregion	Total Impacts (Acres)
Alpine Total	124
Bonsall Total	87
Central Mountain - Cuyamaca Total	3
Central Mountain - Descanso Total	10
Central Mountain - Pine Valley Total	15
Central Mountain - Remainder Total	3
Central Mountain Total	31
County Islands Total	1
Crest-Dehesa Total	88
Desert Subregion - Borrego Springs	18
Desert Subregion - Remainder	14
Desert Subregion	32
Fallbrook Total	204
Jamul-Dulzura Total	174
Julian Total	23
Lakeside Total	116
Mountain Empire - Boulevard Total	11
Mountain Empire - Jacumba Total	31
Mountain Empire - Lake Morena/Campo Total	23
Mountain Empire - Potrero Total	15
Mountain Empire - Tecate Total	<1
Mountain Empire - Remainder Total	6
Mountain Empire Total	86
North County Metro - Hidden Meadows Total	26
North County Metro - Twin Oaks Total	30
North County Metro - Remainder Total	133
North County Metro Total	188
North Mountain - Palomar Mountain Total	13
North Mountain - Remainder Total	116
North Mountain Total	129
Otay Total	13
Pala/Pauma Total	52
Pendleton/De Luz Total	44
Rainbow Total	7
Ramona Total	180
San Dieguito Total	75
Spring Valley Total	27
Sweetwater Total	16
Valle De Oro Total	11
Valley Center Total	133
Countywide Total	**1,841**

Note: Data has been rounded to nearest whole number.
Source: DPLU GIS 2008

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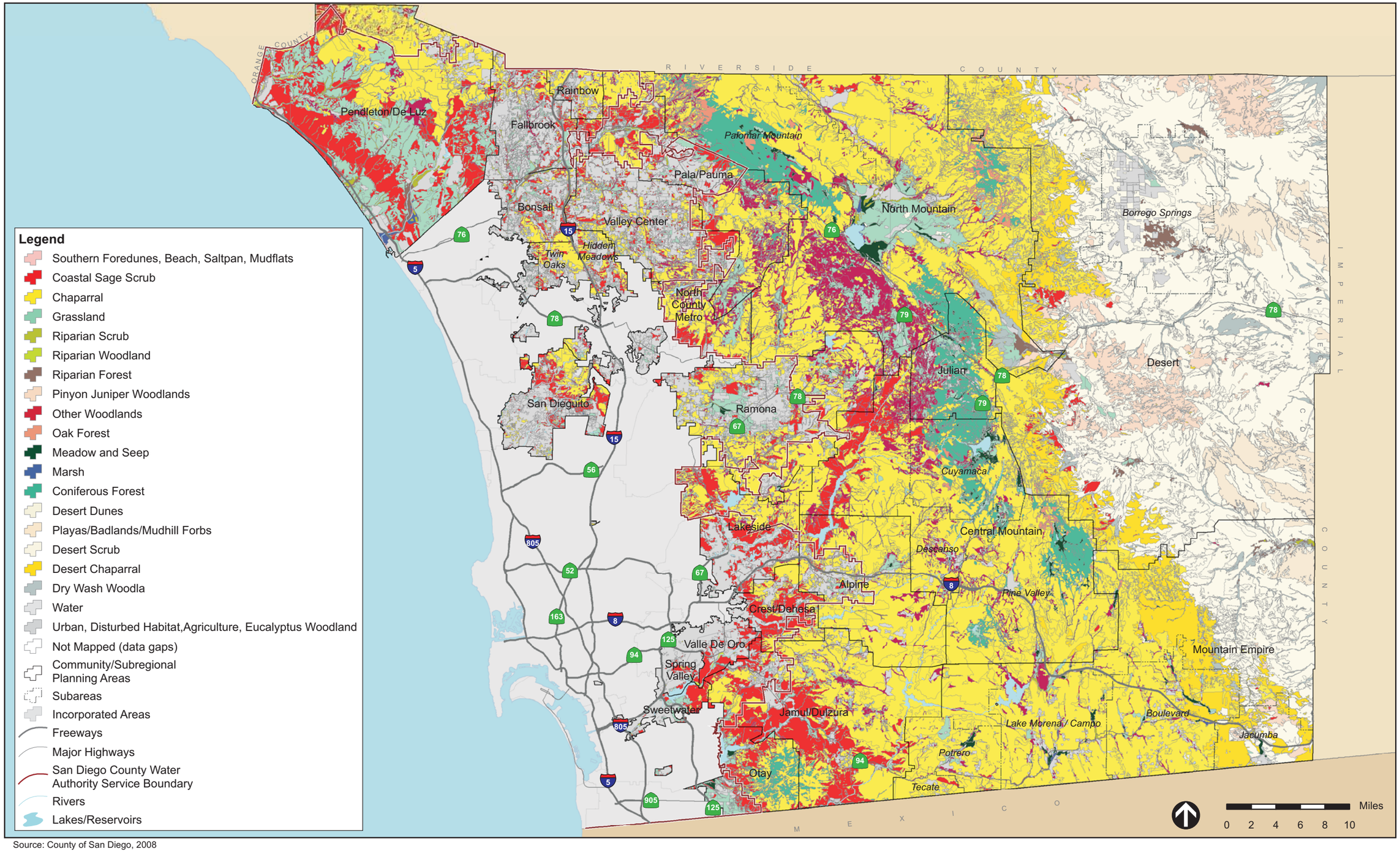
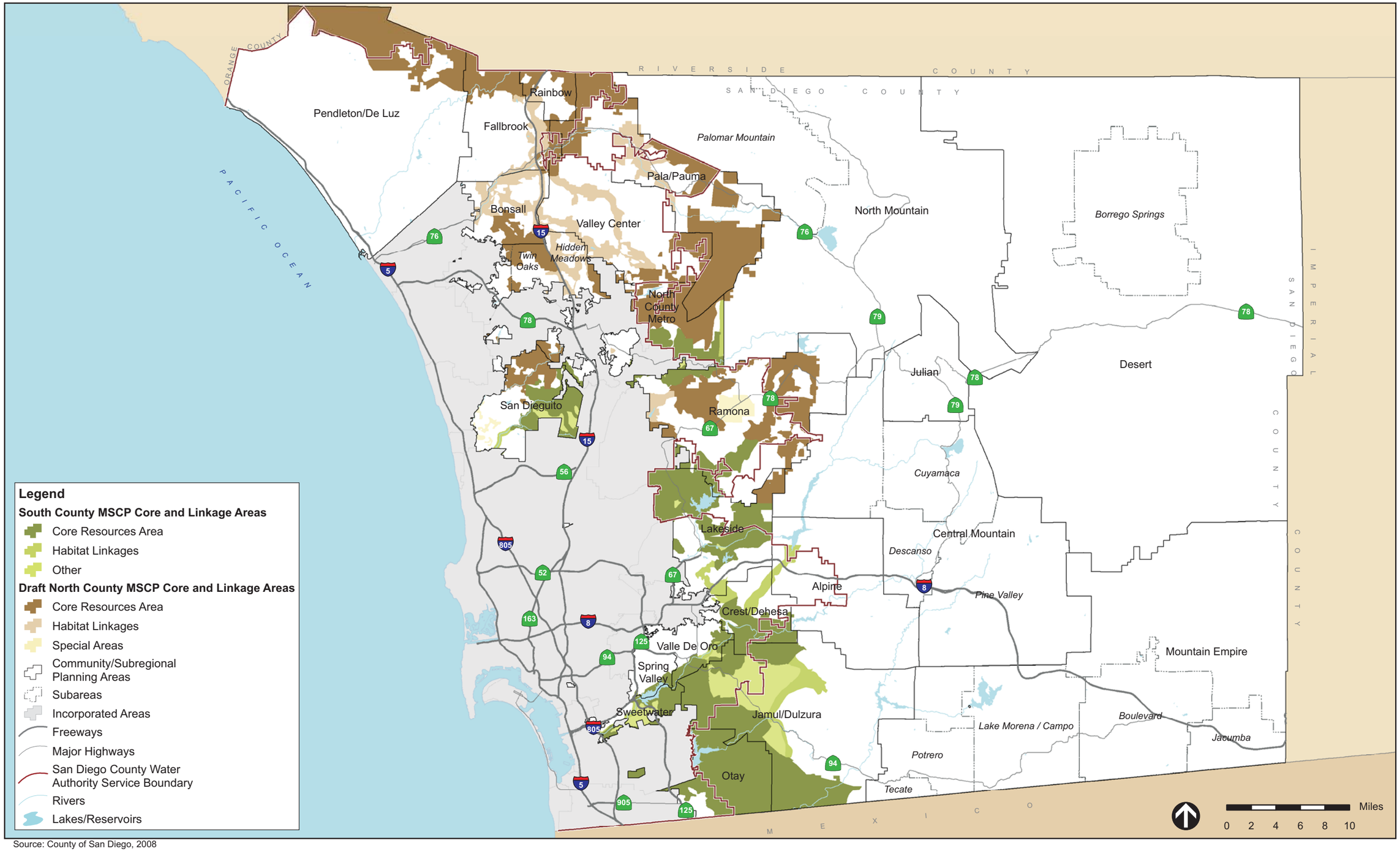


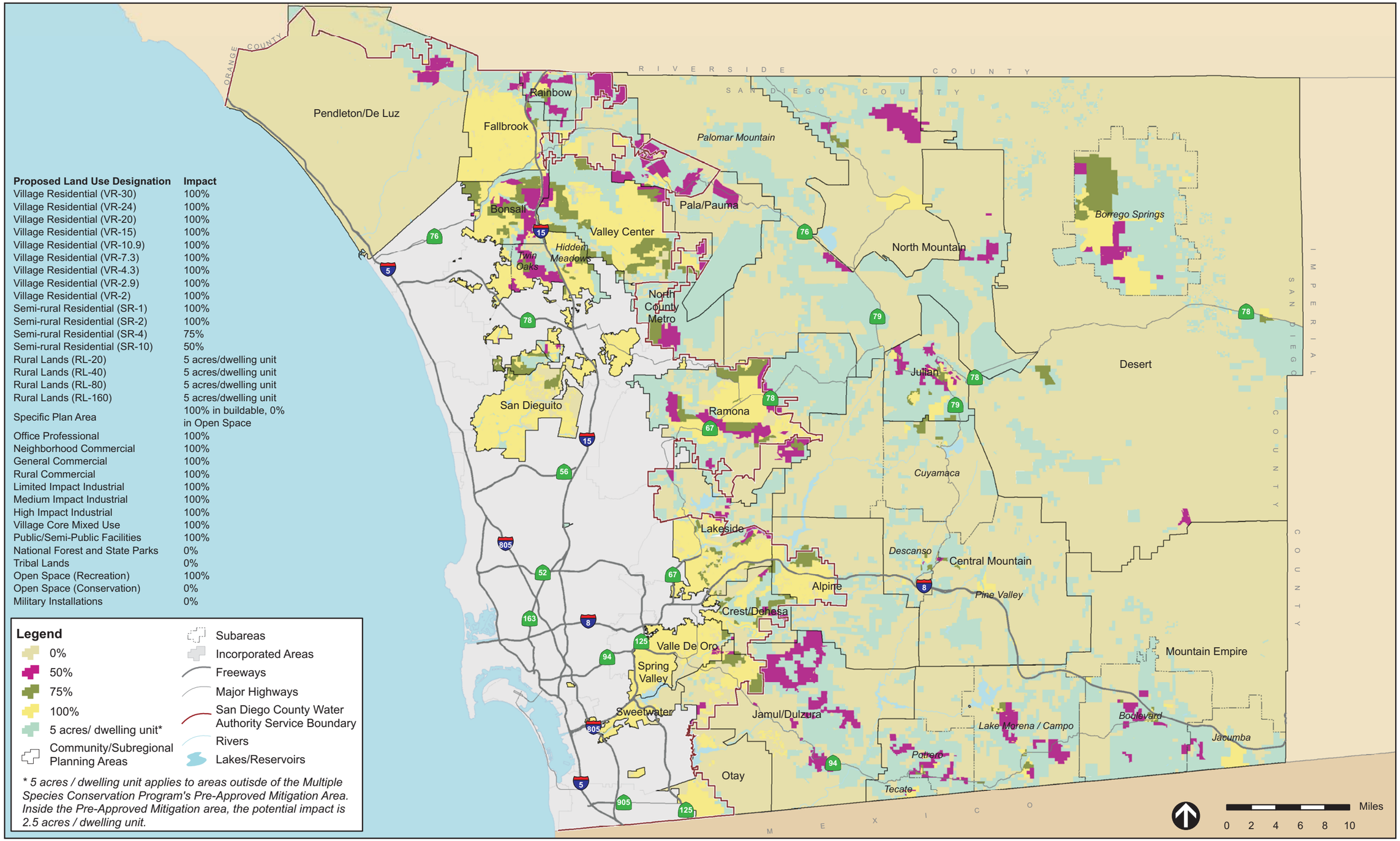
Source: County of San Diego, 2008

AGGREGATED VEGETATION MAP OF SAN DIEGO COUNTY **FIGURE 2.4-1**



Source: County of San Diego, 2008

ADOPTED AND DRAFT MSCP CORE AND LINKAGE AREAS **FIGURE 2.4-2**



Proposed Land Use Designation	Impact
Village Residential (VR-30)	100%
Village Residential (VR-24)	100%
Village Residential (VR-20)	100%
Village Residential (VR-15)	100%
Village Residential (VR-10.9)	100%
Village Residential (VR-7.3)	100%
Village Residential (VR-4.3)	100%
Village Residential (VR-2.9)	100%
Village Residential (VR-2)	100%
Semi-rural Residential (SR-1)	100%
Semi-rural Residential (SR-2)	100%
Semi-rural Residential (SR-4)	75%
Semi-rural Residential (SR-10)	50%
Rural Lands (RL-20)	5 acres/dwelling unit
Rural Lands (RL-40)	5 acres/dwelling unit
Rural Lands (RL-80)	5 acres/dwelling unit
Rural Lands (RL-160)	5 acres/dwelling unit
Specific Plan Area	100% in buildable, 0% in Open Space
Office Professional	100%
Neighborhood Commercial	100%
General Commercial	100%
Rural Commercial	100%
Limited Impact Industrial	100%
Medium Impact Industrial	100%
High Impact Industrial	100%
Village Core Mixed Use	100%
Public/Semi-Public Facilities	100%
National Forest and State Parks	0%
Tribal Lands	0%
Open Space (Recreation)	100%
Open Space (Conservation)	0%
Military Installations	0%

Source: County of San Diego, 2008

ESTIMATED VEGETATION IMPACT **FIGURE 2.4-3**