

## BIOLOGICAL RESOURCES

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This section of the Program Environmental Impact Report (PEIR) describes the biological resources in the SCAG region, discusses the potential impacts of the proposed 2016 Regional Transportation Plan/Sustainable Communities Strategies (“2016 RTP/SCS,” “Plan,” or “Project”) on biological resources, identifies mitigation measures for the impacts, and evaluates the residual impacts. Biological resources were evaluated in accordance with Appendix G of the 2015 State California Environmental Quality Act (CEQA) Guidelines. Biological resources within the SCAG region were evaluated at a programmatic level of detail, in relation to the general plans of the six counties and 191 cities within the SCAG region; a query of the California Natural Diversity Database (CNDDDB)<sup>1</sup> for the SCAG region; a review of published and unpublished literature germane to the SCAG region including but not limited to: United States Geological Survey (USGS) Topographic Maps, USGS Blueline Drainage Maps, the National Wetlands Inventory, the California Native Plant Society Rare Plant Inventory, and Natural Community Conservation Plans and Habitat Conservation Plans; as well as a review of SCAG’s 2012 RTP/SCS PEIR.<sup>2</sup> This section characterizes the baseline conditions for species listed as rare, threatened and endangered pursuant to the Federal or California Endangered Species Acts (ESAs), and associated designated critical habitat; and other special status species, state-designated sensitive plant communities that occur in the SCAG region, including riparian and aquatic habitats afforded protection pursuant to Section 10 of the Rivers and Harbors Act, Section 404 of the Federal Clean Water Act, and Section 1600 of the State Fish and Game Code; regional Habitat Conservation Plans and Multi-species Natural Community Conservation Plans; and other biological resources afforded protection pursuant to county and city general plans.

The SCAG region encompasses two mountain ranges, the Transverse and Peninsular Ranges; two deserts, the Mojave and the Colorado Deserts; and approximately 150 miles of coastline where the western margin of California meets the Pacific Ocean. Elevation ranges from 0 feet above mean sea level (MSL) to more than 10,000 feet above MSL. The diverse topography, landforms, soil and rock types, and climate zones, create the most diverse array of ecosystems and habitats found in the Nation. This varied landscape contains a high diversity of species, including relatively recently-evolved species and localized habitats, some of which are limited to Southern California.

### Definitions

Definitions of terms used in the regulatory framework, characterization of baseline conditions, and impact analysis for biological resources are provided.

**Critical Habitat:** A designated area defined by the United States Fish and Wildlife Services (USFWS) as being important for the survival of species listed pursuant to the federal ESA. The USFWS evaluates the collection of the environmental conditions (i.e., plant communities, range, elevation, food source, etc.)

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<sup>1</sup> California Department of Fish and Wildlife. 2015. *Rarefind 5: A Database Application for the Use of the California Department of Fish and Game Natural Diversity Data Base*. Sacramento, CA.

<sup>2</sup> Southern California Association of Governments. April 2012. Final Program Environmental Report: 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy. Available at: <http://rtpscscag.ca.gov/Pages/Final-2012-PEIR.aspx>

essential to the continued conservation and preservation of each species listed as federally threatened and endangered.

**Federally Designated Sensitive Species:** Species that are not listed by the federal government as endangered, threatened, or candidate species but are categorized by the federal government as a federal species of concern. Federal species of concern is a term-of-art that describes a taxon (organism or group of organisms) whose conservation status may be of concern to the USFWS but does not have official status. In addition, federally designated sensitive species include those that are designated as such by the Bureau of Land Management (BLM) and U.S. Forest Service (USFS) on lands that fall under their jurisdiction.

**Federally Listed Species:** Species provided with special legal protection under the federal ESA. A federally listed endangered species is a species that is in danger of extinction throughout all or a significant portion of its range. A federally threatened species is one likely to become endangered in the absence of special protection or management efforts provided by the listing. A candidate species is one that is proposed by the federal government for listing as endangered or threatened.

**Federal Wetlands:** Defined by the U.S. Army Corps of Engineers (USACOE) and the U.S. Environmental Protection Agency (EPA) as: "Those 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."<sup>3</sup>

**Habitat Conservation Plans (HCPs):** Required by the USFWS as part of an application for an "incidental take" permit for species listed pursuant to the federal ESA. HCPs describe the anticipated effects of the proposed taking, how the impacts will be minimized and mitigated, and how the HCP is to be funded.

**Locally Important Species:** Species that are not monitored by the resource agencies, but monitored by private organizations or local municipal governments. For the purposes of this EIR, locally important species include those plant species recognized by the California Native Plant Society (CNPS), a private organization dedicated to the conservation of native plants, as well as those recognized by the Audubon Society.

**Natural Community Conservation Plan (NCCP):** Defined by CDFW as a plan for the conservation of natural communities that identifies and provides for the regional or areawide protection and perpetuation of plants, animals, and their habitats.

**Nursery Site:** Considered habitat in which native wildlife may establish nests, maternity roosts, dens, or otherwise engage in breeding and/or the rearing of offspring.

**Sensitive Plant Community:** A native plant community listed on CDFW Natural Communities List as being rare within California or threatened by human actions.

**Special Status Species:** Species that have been afforded special recognition by federal, state, and/or local resource agencies or jurisdictions, or recognized resource conservation organizations. Special status wildlife species include those that are federally or state-listed as endangered, threatened, or

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<sup>3</sup> U.S. Army Corps of Engineers. 1987. *Corps of Engineers Wetland Delineation Manual*. Vicksburg, MS.

candidate species pursuant to the federal ESA, the California ESA, or other regulations enforced by a federal or state agency; or those species considered by the scientific community to be rare. For this purposes of this analysis, special status species include listed, sensitive, and locally important species.

**Species of Special Concern (SSC):** Species, subspecies, or distinct population of an animal (bird, mammal, fish, reptile, and amphibian) native to California that currently satisfies one or more of the following criteria: (a) is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role; (b) is listed as federally-, but not state-, threatened or endangered; (c) meets the state definition of threatened or endangered but has not formally been listed; (d) is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status; (e) has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for state threatened or endangered status.

**State-designated Sensitive Species:** Species that are not listed by the state government as endangered, threatened, or candidate species but are categorized by the state as a species of special concern or fully protected species. A California species of special concern is defined by the California Department of Fish and Wildlife (CDFW) as being a wildlife species that has declining population levels, a limited range, and/or continuing threats that have made it vulnerable to extinction.

**State-Listed Species:** Species provided special legal protection under the California ESA. A state-listed endangered species is a species that is in danger of extinction throughout all or a significant portion of its range. A state-listed threatened species is one likely to become endangered in the absence of special protection or management efforts provided by the listing. A candidate species is one that is proposed by the federal or state government for listing as endangered or threatened.

**State Wetlands/Streams:** Defined by the California Fish and Game Code. A *stream* is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. *Wetlands* are defined as areas having riparian vegetation, without regard to wetland vegetation, soils, or hydrology.

**Waters of the United States:** Surface waters such as navigable waters and their tributaries, all interstate waters and their tributaries, natural lakes, all wetlands adjacent to other waters, and all impoundments of these waters. On April 21, 2014, the U.S. EPA proposed to refine the definition of waters of the United States to include all tributaries of traditional navigable waters, interstate waters, territorial seas, and impoundments of such tributaries; wetlands adjacent to the foregoing; and waters other than wetlands that are adjacent to other jurisdictional waters.<sup>4</sup>

**Wildlife Movement Corridors:** Characterized as areas of habitat that are used by wildlife for the purpose of moving between locations.

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<sup>4</sup> *Federal Register*. 21 April 2014. Proposed Rules. 79(76). Available at: <http://www.gpo.gov/fdsys/pkg/FR-2014-04-21/pdf/2014-07142.pdf>

### **3.4.1 REGULATORY FRAMEWORK**

#### ***Federal***

##### *Section 10 of Rivers and Harbors Appropriation Act of 1899*

Authorization from the USACOE must be obtained for construction of a structure in or over any navigable water of the U.S., pursuant to Section 10 of the Rivers and Harbors Appropriation Act of 1899 (33 United States Code [USC] 401, 403, 407). Authorization is also needed for structures built near navigable water if they would affect the course, location, condition, or capacity of the water body, as through re-channelization, disposal of fill, and so forth.

##### *Migratory Bird Treaty Act of 1918 (MBTA)*

The MBTA (16 USC §§ 703–712) makes it unlawful to pursue, capture, kill, or possess any migratory bird or part, nest, or egg of any such bird listed in wildlife protection treaties between the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union. Similar to the federal ESA, the MBTA authorizes the Secretary of the Interior to issue permits for incidental take.

##### *Fish and Wildlife Coordination Act, 1956*

The objective of the Fish and Wildlife Coordination Act of 1956 (FWCA; 16 USC 661–666c) is to protect fish and wildlife when federal actions result in the control or modification of a natural stream or body of water. Under the FWCA, Federal agencies shall consider the effect that water-related projects would have on fish and wildlife resources, prevent loss or damage and develop and improve fish and wildlife resources. The FWCA requires consultation with USFWS and state fish and wildlife agencies to develop measures to protect, develop and improve fish and wildlife resources.

##### *Section 401 of the Federal Clean Water Act (CWA) (1972)*

Section 401 of the federal CWA (33 USC 1251) is administered by the State Water Resources Control Board and the Regional Water Quality Control Boards (RWQCBs). Section 401 requires that prior to any federal permit or license, any activity, including river or stream crossings during road, pipeline, or transmission line construction, which may result in discharges into waters of the United States, must be certified by the applicable RWQCB. This certification ensures that the proposed activity does not violate federal water quality standards. The SCAG region lies within the jurisdiction of five RWQCBs:

- Colorado River Basin
- Lahontan
- Los Angeles
- Santa Ana
- San Diego

### *Section 404 of the Federal CWA*

Section 404 of the federal CWA (33 USC 1251), which is administered by the USACOE, regulates the discharge of dredged and fill material into waters of the United States. USACOE has established a series of nationwide permits that authorize certain activities in waters of the United States, provided that a proposed activity can demonstrate compliance with standard conditions. In general, USACOE requires an individual permit for an activity that will affect an area equal to or in excess of 0.3 acre of waters of the United States. Projects that result in impacts to less than 0.3 acre of waters of the United States can normally be conducted pursuant to one of the nationwide permits, if consistent with the standard permit conditions. USACOE also has discretionary authority to require an Environmental Impact Statement for projects that result in impacts to an area between 0.1 and 0.3 acre. Use of any nationwide permit is contingent on the activities having no impacts to endangered species.

### *Marine Mammal Protection Act of 1972 (MMPA)*

The MMPA (16 USC 31) protects all marine mammals, including cetaceans (whales, dolphins, and porpoises), pinnipeds (seals and sea lions), sirenians (manatees and dugongs), sea otters, and polar bears within the waters of the United States. The MMPA prohibits the “take” of marine mammals without a permit, with certain exceptions. The definition of “take” under the MMPA is consistent with that of the federal ESA. The MMPA is managed by the federal government. The National Marine Fisheries Service is responsible for managing cetaceans, otariids, and phocids. The USFWS is responsible for managing odobenids, sirenians, otters, and polar bears.

### *Marine Protection, Research, and Sanctuaries Act of 1972 (MPRSA)*

The MPRSA (Public Law 92-532), also known as the Ocean Dumping Act, prohibits the dumping of material into the ocean that would unreasonably degrade or endanger human health or the marine environment. Ocean dumping cannot occur unless a permit is issued under the MPRSA. In the case of dredged material, the decision to issue a permit is made by the USACOE, using EPA’s environmental criteria and subject to EPA’s concurrence.

### *Federal Endangered Species Act of 1986 (the Federal ESA)*

The federal ESA (16 USC 1531) defines species as endangered and threatened and provides regulatory protection for listed species. The federal ESA provides a program for conservation and recovery of threatened and endangered species, and conservation of designated critical habitat that the USFWS has determined is required for the survival and recovery of these listed species.

Section 7 of the federal ESA requires federal agencies to aid in the conservation of listed species and to ensure that the activities of federal agencies will not jeopardize the continued existence of listed species or adversely modify designated critical habitat. At the federal level, the USFWS and the National Oceanic and Atmospheric Administration (NOAA) are responsible for administration of the Endangered Species Act.

Section 9 of the federal ESA prohibits the take of species listed by USFWS as threatened or endangered. *Take* is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in such conduct.” In recognition that take cannot always be avoided, Section 10(a) of the

federal ESA includes provisions for take that is incidental to, but not the purpose of, otherwise lawful activities.

Section 10(a)(1)(B) permits may be issued if take is incidental and does not jeopardize the survival and recovery of the species. An HCP is required with Section 10 incidental take permits to ensure the minimization of impacts to listed species and to provide adequate mitigation for impacts to listed species.

### *Emergency Wetlands Resources Act of 1986 (EWRA)*

The objective of the EWRA (16 USC 3901–3932), dated November 10, 1986, is to promote the conservation of wetlands and help fulfill obligations contained in various migratory bird treaties. Under the EWRA, the UUSFWS must provide leadership and take action to:

- Intensify cooperative efforts to manage and conserve wetlands
- Intensify efforts to protect wetlands

### *Bald and Golden Eagle Protection Act (BGEPA)*

The purpose of the federal BGEPA (16 USC 668–668c, as amended) that is administered by the USFWS protects bald and golden eagles, their nests, eggs, and parts.<sup>5</sup> The BGEPA states that no person shall take, possess, sell, purchase, barter, offer for sale, purchase or barter, transport, export, or import any bald or golden eagle alive or dead, or any part, nest, or egg without a valid permit to do so. The BGEPA prohibits the “take” of bald and golden eagles unless pursuant to regulations. *Take* is defined by the BGEPA as an action “to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb.”

In addition to immediate impacts, this definition covers impacts that result from human-caused alterations initiated around a previously used nest site during a time when eagles were not present. Permits are issued to Native Americans to possess eagle feathers for religious purposes, and salvaged eagle carcasses can be sent to the National Eagle Repository in Colorado, where they are redistributed to Native Americans. Although the bald eagle was removed from the Endangered Species List in June 2007, it is still federally protected under the BGEPA and MBTA described above. In addition, the *National Bald Eagle Management Guidelines* were published in conjunction with delisting by the USFWS in May 2007 to provide provisions to continue to protect bald eagles from harmful actions and impacts.<sup>6</sup>

Under the BGEPA, a final rule was published in May 2008 in the *Federal Register* that proposed authorization for take of bald eagles for those with existing authorization under the federal ESA where the bald eagle is covered in an HCP or the golden eagle is covered as a non-listed species.<sup>7</sup> The final rule also established a new permit category to provide expedited permits to entities authorized to take bald eagles through Section 7 Incidental Take Permits.

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<sup>5</sup> U.S. Fish and Wildlife Service. n.d. *Bald Eagle Management Guidelines and Conservation Measures: Bald and Golden Eagle Protection Act*. Available at: <http://www.fws.gov/midwest/Eagle/guidelines/bgepa.html>

<sup>6</sup> U.S. Fish and Wildlife Service. May 2007. *National Bald Eagle Management Guidelines*. Available at: <http://www.fws.gov/pacific/eagle/NationalBaldEagleManagementGuidelines.pdf>

<sup>7</sup> *Federal Register*. 20 May 2008. Notices. 73(98): 29075–84.

### *Wetlands – Executive Order Number 11990*

Executive Order (EO) 11990 was issued in May 1977, as a furtherance of the National Environmental Policy Act (NEPA) providing protection of wetlands. Pursuant to the EO, all new construction should be designed to the greatest extent possible to avoid long- and short-term adverse impacts that would lead to the destruction or the modification of wetlands, in order to preserve and enhance the natural and beneficial values of wetlands. Federal agencies, such as the Federal Highway Administration (FHWA), cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds that: (1) there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm.

### *Invasive Species – Executive Order Number 13112*

This EO was signed by President Clinton on February 3, 1999. It serves to prevent activities that may promote the introduction and spread of invasive species. The order states that federal agencies whose actions “may affect the status of invasive species shall ... use relevant programs and authorities to ... prevent the introduction of invasive species ... detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner...monitor invasive species populations accurately and reliably ... provide for restoration of native species and habitat conditions in ecosystems that have been invaded.” In order to implement EO 13112, the FHWA has established guidance to prevent the introduction and spread, and promote the control, of invasive plant species on highway rights-of-way. Under EO 13112, federal agencies are prohibited from authorizing, funding, or carrying out actions that are likely to promote or result in the introduction or spread of invasive species unless all feasible measures to minimize the impacts have been analyzed and considered.

## **State**

### *Section 1600 of the State Fish and Game Code, Lake or Streambed Alteration*

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California are subject to the regulatory authority of the CDFW pursuant to Sections 1600 through 1603 of the Code and require preparation of a Streambed Alteration Agreement. Pursuant to the Code, a stream is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Based on this definition, a watercourse with surface or subsurface flows that support or have supported riparian vegetation is a stream and is subject to CDFW jurisdiction. Altered or artificial waterways valuable to fish and wildlife are subject to CDFW jurisdiction. CDFW also has jurisdiction over dry washes that carry water ephemerally during storm events.

### *Section 2080 of the State Fish and Game Code, California Endangered Species Act (California ESA)*

The California ESA prohibits the take of listed species except as otherwise provided in state law. Unlike the federal ESA, the California ESA applies the take prohibitions to species petitioned for listing (state candidates). State lead agencies are required to consult with the CDFW to ensure that any actions

undertaken by the lead agency are not likely to jeopardize the continued existence of any state-listed species or result in destruction or degradation of required habitat. CDFW is authorized to enter into Memoranda of Understanding (MOUs) with individuals, public agencies, universities, zoological gardens, and scientific or educational institutions to import, export, take, or possess listed species for scientific, educational, or management purposes.

Pursuant to Section 2081 of the Code, the CDFW may authorize individuals or public agencies to import, export, take, or possess, any state-listed endangered, threatened, or candidate species. These otherwise prohibited acts may be authorized through permits or MOUs if:

- The take is incidental to an otherwise lawful activity.
- The impacts of the authorized take are minimized and fully mitigated.
- The permit is consistent with any regulations adopted pursuant to any recovery plan for the species.
- The applicant ensures adequate funding to implement the measures required by CDFW.

CDFW shall make this determination based on available scientific information and shall include consideration of the ability of the species to survive and reproduce.

### *Sections 2800 through 2840 of the State Fish and Game Code, Natural Community Conservation Planning Act*

Section 2800 through 2840 of the State Fish and Game Code provides a mechanism to conserve natural communities on an ecosystem level while accommodating compatible land use. Specifically, it is used to provide comprehensive management and conservation of multiple wildlife species and the natural communities in which they occur.

### *Sections 3503 and 3503.5 of the State Fish and Game Code, Resident and Migratory Birds*

Sections 3503 and 3503.5 of the State Fish and Game Code provide regulatory protection to resident and migratory birds and all birds of prey within the State of California, including the regulation of the taking of nests and eggs, unless otherwise provided for by the State Fish and Game Code. Specifically, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, or destroy the nest or eggs of any bird of prey, except as otherwise provided.

### *Sections 3511, 4700, 5050, and 5515 of the State Fish and Game Code, Fully Protected Species*

The classification of Fully Protected was the state's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under the state and/or federal Endangered Species Acts. Sections 3511, 4700, 5050 and 5515 of the Fish and Game Code state that Fully Protected species (birds, mammals, fish, reptiles, amphibians) or parts thereof may not be taken or possessed at any time and no licenses or permits may



be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

### *Title 14, § 460 of the California Code of Regulations*

The regulations of take of furbearing mammals are established within the California Code of Regulations (CCR), Title 14, Division 1 (Subdivision 2), Chapter 5. Take is prohibited for several furbearing mammals under Title 14, § 460 of the CCR, including, but not limited to, desert kit fox (*Vulpes macrotis arsipus*) and red fox (*Vulpes vulpes*). Title 14 § 460 is supported by Sections 200, 202, 203, and 4009.5 of the State Fish and Game Code.

### *California Porter-Cologne Water Quality Control Act (1969)*

Pursuant to the California Porter-Cologne Water Quality Control Act (California Water Code, Division 7), the State Water Resources Control Board is granted ultimate authority over water quality policy for the State of California. The nine regional boards, the RWQCBs, oversee water quality at the local and regional levels, and regulate pollutant and nuisance discharges into waters of the state. Waters of the state are defined as any surface water or groundwater, including saline waters, within the boundaries of the state. Before allowing discharges that may affect the quality of waters of the state, a Report of Waste Discharge must be filed with the RWQCB.

### *California Wild and Scenic Rivers Act (1972)*

The objective of the California Wild and Scenic Rivers Act of 1972 (Public Resources Code [PRC] 5093.50) is the preservation of certain rivers which possess extraordinary scenic, reaction, fishery, or wildlife values. The Act provides permanent protection for some of the state's most outstanding free flowing rivers and prohibits actions such as the construction of dams or other harmful instream activities, except to serve local needs.

### *California Coastal Act (1976)*

Through the California Coastal Act (PRC Division 20), the California Coastal Commission has unusually broad authority to regulate development in the Coastal Zone. A permit is required for any project that might change the intensity of land use in the Coastal Zone including projects that would require a building or grading permit from the city or county, major vegetation clearing, or subdividing. The coastal zone generally extends three miles seaward and about 1,000 yards inland. In particularly important and generally undeveloped areas where there can be considerable impact on the coastline from inland development, the coastal zone extends to a maximum of five miles inland from mean high tide line. In developed urban areas, the coastal zone extends substantially less than 1,000 yards inland.

### *California Native Plant Protection Act (1977)*

The Native Plant Protection Act (Fish and Game Code Section 1900–1913) includes measures to preserve, protect, and enhance rare and endangered native plants. The list of native plants afforded protection pursuant to the Native Plant Protection Act includes those listed as rare and endangered under the California ESA. The Native Plant Protection Act provides limitations by stating “no person will

import into this State, or take, possess, or sell within this State” any rare or endangered native plant, except in compliance with provisions of the act. Individual landowners are required to notify the CDFW at least 10 days in advance of changing land uses to allow the CDFW to salvage any rare or endangered native plant material.

### *California Desert Native Plant Act (1981)*

The main purpose of the Desert Native Plant Act (Food and Agriculture Code Division 23) is to preserve and enhance desert native plants by protecting certain species from unlawful harvesting on both public and privately owned lands. The list of desert native plants afforded protection pursuant to the Desert Native Plant Act includes species within the Mojave Desert portions of Los Angeles, San Bernardino, and Riverside Counties. The Desert Native Plant Act provides limitations that no person will harvest, transport, or possession of certain native desert plants without authorization (i.e., valid permit or wood receipt). Authorization for take of native desert plants can be obtained through the sheriff or commissioner of the county where harvesting will occur and subject to county designated fees.

### *Natural Community Conservation Planning Act of 1991, as Amended*

The Natural Community Conservation Planning Act of 1991, as amended in 2003 (Fish and Game Code Section 2800-2835) established the Natural Community Conservation Planning program for the protection and perpetuation of the state’s biological diversity. The CDFW established the program in order to conserve natural communities at the ecosystem level while accommodating compatible land use. An NCCP identifies and provides for the regional or area-wide protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity. The CDFW provides support, direction, and guidance to participants in order to ensure that NCCPs are consistent with the state ESA.

### *State Senate Concurrent Resolution No. 17 – Relative to Oak Woodlands*

The State Senate Concurrent Resolution No. 17, filed with the Secretary of State on September 1, 1989, states that any state agencies having land use planning duties and responsibilities shall assess the effects of their land use decisions or actions within any oak woodlands containing blue oak (*Quercus douglasii*), Engelmann oak (*Q. engelmannii*), valley oak (*Q. lobata*), or coast live oak (*Q. agrifolia*). The State Senate defines “oak woodland” as a five-acre circular area containing five or more oak trees per acre. This resolution requires that state agencies must preserve and protect native oak woodlands to the maximum extent feasible or provide for replacement plantings where blue, Engelmann, valley, or coast live oak are removed from oak woodlands.

### *State Wildlife Action Plan (SWAP)*

Congress created the State and Tribal Wildlife Grants (SWG) program in 2000, recognizing the need to fund programs for the conservation of wildlife diversity.<sup>8</sup> Congress mandated each state and territory to develop a SWAP by 2005 that provided a comprehensive wildlife conservation strategy to continue receiving federal funds through the SWG program. California’s first SWAP was completed by the

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<sup>8</sup> U.S. Fish & Wildlife Services. Accessed 29 October 2015. State Wildlife Grant Program – Overview. Available at: <http://wsfrprograms.fws.gov/Subpages/GrantPrograms/SWG/SWG.htm>

California Department of Fish and Game (now the CDFW) and approved by the U.S. Fish and Wildlife Services (USFWS) in 2005. California's SWAP 2005 identified and targeted Species of Greatest Conservation Need (SGCN) and the critical habitats on which they depend. The SWG program requires SWAP updates at least every 10 years. CDFW has recently prepared SWAP 2015, which is the first comprehensive update of SWAP 2005.<sup>9</sup> Currently under USFWS review for approval, the SWAP 2015 focuses on conservation of the wildlife resources of the nation's most biologically diverse state using an approach that is in harmony with a growing human population and the need for resilience in the face of a changing climate. Employing an ecosystem approach to conserve and manage diverse habitats and species, SWAP 2015 provides a blueprint for actions necessary to address the highest priorities for conserving California's aquatic, marine, and terrestrial resources.

## **Local**

In addition to federal, state, and county regulations described above, general plans and municipal codes of counties and cities in the SCAG region may include conservation elements that identify biological resources, including mature trees and locally important species that are afforded special consideration.

### ***County General Plans and Ordinances***

Per state general plan guidelines, county's general plan is required to contain a conservation element as well as an open space element. These elements are generally where discussions regarding biological resources can be found. Each county's general plan varies in level of detail and necessary measures to preserve biological resources. The counties within the SCAG area may each have individual codes or ordinances protecting biological resources. A commonly occurring ordinance is a native tree protection or oak tree protection ordinance. These codes and ordinances generally have a limited scope, in this case the removal of specific tree species, which are afforded some level of protection.

#### ***Imperial County***

The Imperial County Code of Ordinances has established two codes related to biological resources (Chapter 12.44, Wildlife Protection, and Chapter 12.48 Wild Flowers and Trees). The Conservation and Open Space Element of the Imperial County General Plan has established one goal and two policies related to biological resources.<sup>10</sup> The County's two codes, one goal and two supporting policies relevant to the SCAG projects provide protection to wildlife, wild flowers and trees as well as preservation of native plant communities and best restoration practices.

#### ***Los Angeles County***

The Conservation and Natural Resources Element of the Los Angeles County General Plan 2035 Update has established two goals and 13 policies related to biological resources. Ten of the 13 policies are relevant to the SCAG projects.<sup>11</sup> The two goals and eight supporting policies that apply to SCAG

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<sup>9</sup> California Department of Fish and Wildlife. 2015. California State Wildlife Action Plan 2015 Update: A Conservation Legacy for Californians. Available at: <https://www.wildlife.ca.gov/SWAP/Final>

<sup>10</sup> Imperial County Planning and Development Services. 1993. *Imperial County General Plan: Chapter 9: Conservation and Open Space Element*. Pp. 47, 54. Available at: <http://www.icpds.com/CMS/Media/Conservation-and-Open-Space-Element.pdf>

<sup>11</sup> Los Angeles County Department of Regional Planning. January 2014. *Los Angeles County General Plan Public Review Draft:*

activities provide protection to natural habitats, special status species, sensitive plant communities, wildlife corridors, watersheds and other sensitive biological resources. They also act to discourage development in natural or biologically sensitive areas. In addition, the Los Angeles County Code of Ordinances has established an ordinance to protect native oak trees.

Los Angeles County has designated several areas containing sensitive biological resources as Significant Ecological Areas (SEAs). SEAs are areas that warrant special management because they contain biotic resources that are considered to be rare or unique; are critical to the maintenance of wildlife; represent relatively undisturbed areas of Los Angeles County Habitat Types; or serve as linkages. Any development within SEAs is subject to the discretion and policies of the Significant Ecological Areas Technical Advisory Committee (SEATAC).

### **Orange County**

The Resources Element of the Orange County General Plan has established one goal and one policy related to biological resources.<sup>12</sup> The one goal and one supporting policy relevant to SCAG projects provide protection to wildlife, plants and vegetation communities.

### **Riverside County**

The Riverside County Code of Ordinances has established one ordinance related to biological resources (No. 559, Section 1). The Open Space and Conservation Element of the Riverside County General Plan has established two objectives and eight policies related to biological resources.<sup>13</sup> The one ordinance, two goals, and eight supporting policies relevant to the SCAG projects provide protection to native trees, native plant communities, critical habitat, sensitive habitats, sensitive species and wildlife corridors. They also ensure continued participation and compliance with the County's Multi-Species HCP Program and the San Bernardino kangaroo rat HCP.

### **San Bernardino County**

The San Bernardino County Development Code has established one code related to biological resources (Chapter 88.01.010(c)). The Conservation Element of the San Bernardino County General Plan has established one goal and six policies related to biological resources.<sup>14</sup> The one code, two goals, and six supporting policies relevant to SCAG projects provide protection to native species, sensitive species and sensitive plant communities. They also warrant coordination with the appropriate resource management agencies and interested groups to maintain the County's biological resources.

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*Chapter 9: Conservation and Natural Resources Element.* P. 146. Available at:  
[http://planning.lacounty.gov/assets/upl/project/gp\\_2035\\_Chapter9\\_2014.pdf](http://planning.lacounty.gov/assets/upl/project/gp_2035_Chapter9_2014.pdf)

<sup>12</sup> Orange County Land Use Planning and Subdivision Services. 2005. *Orange County General Plan 2005: Chapter 6: Resources Element.* P. VI-32. Available at: <http://ocplanning.net/civicax/filebank/blobdload.aspx?blobid=40235>

<sup>13</sup> Riverside County Planning Department. November 2012. *Riverside County General Plan 2025: Open Space and Conservation Element.* P. OS-40. Available at:  
[http://www.riversideca.gov/planning/gp2025program/GP/12\\_Open\\_Space\\_and\\_Conservation\\_Element.pdf](http://www.riversideca.gov/planning/gp2025program/GP/12_Open_Space_and_Conservation_Element.pdf)

<sup>14</sup> San Bernardino County Land Use Services. 2007. *San Bernardino County General Plan: Chapter 5: Conservation Element.* P. V-13. Available at: <http://www.sbcounty.gov/Uploads/lus/GeneralPlan/FINALGP.pdf>

## **Ventura County**

The Ventura County Code of Ordinances has established one ordinance related to biological resources. The Resources Element of the Ventura County General Plan has established one goal and two policies related to biological resources.<sup>15</sup> The one code, one goal and six supporting policies relevant to SCAG projects provide protection to native trees, sensitive species, sensitive habitats, wildlife corridors and locally important species/communities.

### **City General Plan and Ordinances**

In accordance with Sections 6530(c) and (d) of the California Government Code, like the six counties in the SCAG region, all cities are required to have a conservation element and an open space element, as mandatory elements of their general plans. The conservation element provides goals and policies related to conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. One of the six required aspects of the open space element is for planning, conservation and management of open space for the preservation of natural resources, including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, bays and estuaries; and coastal beaches, lakeshores, banks of rivers and streams, and watershed lands. In addition, many of the cities have ordinances related to protection, conservation and management of natural habitats, and associated plant and animal resources.

### **3.4.2 EXISTING CONDITIONS**

This section provides the environmental setting for sensitive biological resources in the SCAG region, which encompasses an area of more than 38,000 square miles within the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. This vast area includes millions of acres of open space and recreational land as well as large amounts of farmland and a population of approximately 19 million people.<sup>16</sup> The SCAG region is composed of a complex pattern of land uses that may contain sensitive biological resources including residential, commercial/office, industrial, institutional, agricultural, and open space land uses. The SCAG region includes a rich assemblage of biological resources supported by a variety of elevation, landform, soil and rock types, and climate zones. This varied landscape contains a high diversity and abundance of species, including relatively recently-evolved species and localized habitats with species that occur only in Southern California. This section includes information on the following baseline conditions in the SCAG region: special-status species and associated critical habitat, state-sensitive and riparian plant communities, federally protected wetlands and waterways, migratory corridors and nursery sites for native Southern California wildlife, local policies and ordinances, and Habitat Conservation Plans and Natural Community Conservation Plans.

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<sup>15</sup> Ventura County Planning and Development Services. March 2015. *Ventura County General Plan: Goals, Policies and Programs*. P. 16. Available at: <http://www.ventura.org/rma/planning/pdf/plans/Goals-Policies-and-Programs.pdf>

<sup>16</sup> SCAG projections for 2020 indicate a population total of 19,390,870.

## Special-Status Species and Critical Habitat

Special-status species are species that have been afforded special recognition by federal, state, and/or local resource agencies or jurisdictions, or recognized resource conservation organizations. Special status wildlife species include those that are federally or state-listed as endangered, threatened, or candidate species pursuant to the federal ESA, the California ESA, or other regulations enforced by a federal or state agency; or those species considered by the scientific community to be rare. For this purposes of this analysis, special-status species include listed, sensitive, and locally important species.

### *State and Federally Listed Species*

A search of relevant literature and databases for the six counties of the SCAG region was performed to develop a list of listed species and biological resources that could potentially occur in the SCAG region. Literature and database records reviewed were:

- CNDDDB information (RareFind 5), administered by CDFW. This database inventories the status and locations of rare plants, animals, and natural communities in California.
- California Native Plant Society (CNPS) On-Line Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPSEI 2015).
- Calflora. Information on wild California plants for conservation, education, and appreciation. <http://www.calflora.org/>.
- Consortium of California Herbaria. A gateway to information from California vascular plant specimens that are housed in participant herbaria. <http://ucjeps.berkeley.edu/consortium/>.
- State of California. The Natural Resources Agency. Department of Fish and Game. Biogeographic Data Branch. CNDDDB. Special Animals (898 taxa). January 2011.
- eBird. A real-time online bird watching checklist for reporting and accessing information about birds. <http://ebird.org>.

There are 66 federally or state-listed wildlife species and 76 plant species with historical records located within the six counties of the SCAG region as well as nearly 6 million acres of designated critical habitat (**Table 3.4.2-1, Summary of Federally and State-Listed Species Reported in the SCAG Region and Designated Critical Habitat; Figure 3.4.2-1, State and Federally Listed Species Reported in the SCAG Region**).<sup>17</sup> Available information for the federally or State-listed species historically known from the SCAG region has been compiled, including counties that are known to be within the historic range of the species and whether designated critical habitat has been defined for the species (**Table 3.4.2-2, State and Federally Listed Species Reported in the SCAG Region and Designated Critical Habitat**).

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<sup>17</sup> California Department of Fish and Wildlife. 2015. *Rarefind 5: A Database Application for the Use of the California Department of Fish and Game Natural Diversity Data Base*. Sacramento, CA.



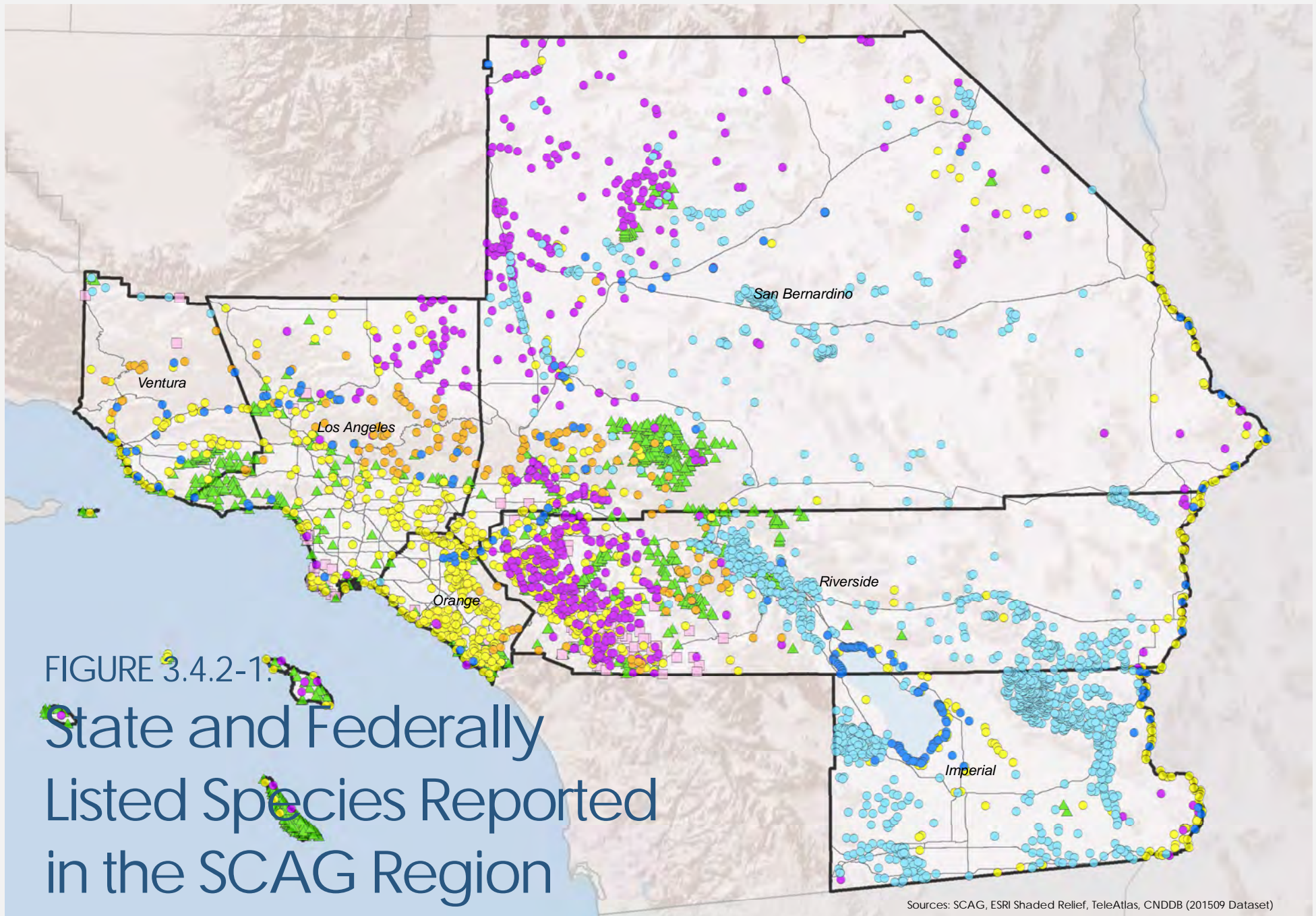
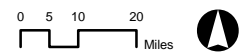


FIGURE 3.4.2-1.  
 State and Federally  
 Listed Species Reported  
 in the SCAG Region

- |                                    |                |
|------------------------------------|----------------|
| State and Federally Listed Species | □ Invertebrate |
| ● Amphibian                        | ● Mammal       |
| ● Bird                             | ▲ Plant        |
| ● Fish                             | ● Reptile      |

Sources: SCAG, ESRI Shaded Relief, TeleAtlas, CNDDDB (201509 Dataset)



**TABLE 3.4.2-1  
SUMMARY OF FEDERALLY AND STATE-LISTED SPECIES REPORTED IN THE SCAG REGION  
AND DESIGNATED CRITICAL HABITAT**

County	Resources Reported in the SCAG Region						
	Wildlife Species			Plant Species			Critical Habitat
	Number Solely Federally Listed	Number Federally and State-Listed	Number Solely State-Listed	Number Solely Federally Listed	Number Federally and State-Listed	Number Solely State-Listed	Acres of Critical Habitat
Imperial	1	11	8	1	2	2	510,830
Los Angeles	16	11	10	7	20	5	109,600
Orange	8	4	6	3	9	0	45,900
Riverside	12	12	11	9	10	5	1,246,280
San Bernardino	8	12	11	15	9	3	3,648,900
Ventura	11	9	7	8	7	5	346,730
Entire SCAG region	24	24	18	30	28	18	5,908,250

**SOURCE:**

California Department of Fish and Wildlife. 2015. *Rarefind 5: A Database Application for the Use of the California Department of Fish and Game Natural Diversity Data Base*. Sacramento, CA.

**TABLE 3.4.2-2  
STATE AND FEDERALLY LISTED SPECIES REPORTED IN THE SCAG REGION  
AND DESIGNATED CRITICAL HABITAT**

Scientific Name	Common Name	Status	Counties Where Reported	Designated Critical Habitat (Acres)
<b>Plants</b>				
<i>Acanthoscyphus parishii</i> var. <i>goodmaniana</i>	Cushenbury oxytheca	FE, CRPR: 1B.1	SB	ND
<i>Acmispon argophyllus</i> var. <i>adsurgens</i>	San Clemente Island bird's-foot trefoil	SE, CRPR: 1B.1	LA	ND
<i>Acmispon dendroideus</i> var. <i>traskiae</i>	San Clemente Island lotus	FT, SE, CRPR: 1B.3	LA	ND
<i>Allium munzii</i>	Munz's onion	FE, ST, CRPR: 1B.1	RIV	1,240
<i>Ambrosia pumila</i>	San Diego ambrosia	FE, CRPR: 1B.1	RIV	ND
<i>Arenaria paludicola</i>	Marsh sandwort	FE, SE, CRPR: 1B.1	LA, RIV, SB	ND
<i>Astragalus albens</i>	Cushenbury milk-vetch	FE, CRPR: 1B.1	SB	4,370
<i>Astragalus brauntonii</i>	Braunton's milk-vetch	FE, CRPR: 1B.1	LA, VEN, OR, RIV	3,930
<i>Astragalus jaegerianus</i>	Lane Mountain milk-vetch	FE, CRPR: 1B.1	SB	ND
<i>Astragalus lentiginosus</i> var. <i>coachellae</i>	Coachella Valley milk-vetch	FE, CRPR: 1B.2	RIV	ND
<i>Astragalus magdalenae</i> var. <i>peirsonii</i>	Peirson's milk-vetch	FT, SE, CRPR: 1B.2	IMP	21,860
<i>Astragalus pyncnostachyus</i> var. <i>lanosissimus</i>	Ventura Marsh milk-vetch	FE, SE, CRPR: 1B.1	LA, OR, VEN	220
<i>Astragalus tener</i> var. <i>titi</i>	Coastal dunes milk-vetch	FE, SE, CRPR: 1B.1	LA	ND



**TABLE 3.4.2-2  
STATE AND FEDERALLY LISTED SPECIES REPORTED IN THE SCAG REGION  
AND DESIGNATED CRITICAL HABITAT**

Scientific Name	Common Name	Status	Counties Where Reported	Designated Critical Habitat (Acres)
<i>Astragalus traskiae</i>	Trask's milkvetch	SR, CRPR: 1B.2	VEN	ND
<i>Astragalus tricarinatus</i>	Triple-ribbed milk vetch	FE, CRPR: 1B.2	RIV, SB	ND
<i>Atriplex coronata</i> var. <i>notatior</i>	San Jacinto valley crownscale	FE, CRPR: 1B.1	RIV	ND
<i>Berberis nevinii</i>	Nevin's barberry	FE, SE, CRPR: 1B.1	LA, RIV, SB	ND
<i>Berberis pinnata</i> ssp. <i>insularis</i>	Island barberry	FE, SE, CRPR: 1B.2	VEN	ND
<i>Boechera hoffmannii</i>	Hoffmann's rockcress	FE, CRPR: 1B.1	VEN	ND
<i>Brodiaea filifolia</i>	Thread-leaved brodiaea	FT, SE, CRPR: 1B.1	LA, OR, RIV, SB	4,510
<i>Castilleja cinerea</i>	Ash-gray paintbrush	FT, CRPR: 1B.2	SB	ND
<i>Castilleja gleasoni</i>	Mt. Gleason paintbrush	SR, CRPR: 1B.2	LA	ND
<i>Castilleja grisea</i>	San Clemente Island paintbrush	FT, SE, CRPR: 1B.3	LA	ND
<i>Ceanothus ophiochilus</i>	Vail Lake ceanothus	FT, SE, CRPR: 1B.1	RIV	200
<i>Cercocarpus traskiae</i>	Catalina Island mountain-mohagany	FE, SE, CRPR: 1B.1	LA	ND
<i>Chloropyron maritimum</i> ssp. <i>Maritimum</i>	Salt marsh bird's-beak	FE, SE, CRPR: 1B.2	LA, OR, RIV, SB, VEN	ND
<i>Chorizanthe parryi</i> var. <i>fernandina</i>	San Fernando Valley spineflower	FC, SE, CRPR: 1B.1	LA, OR, VEN	ND
<i>Crocانthemum greenei</i>	Island rush-rose	FT, CRPR: 1B.2	LA	ND
<i>Croton wigginsii</i>	Wiggins' croton	SR, CRPR: 2B.2	IMP	ND
<i>Deinandra minthornii</i>	Santa Susana tarplant	SR, CRPR: 1B.2	LA, VEN	ND
<i>Deinandra mohavensis</i>	Mojave tarplant	SE, CRPR: 1B.3	RIV, SB	ND
<i>Delphinium hesperium</i> ssp. <i>cuyamaca</i>	Cuyamaca larkspur	SR, CRPR: 1B.2	RIV	ND
<i>Delphinium variegatum</i> ssp. <i>kinkiense</i>	San Clemente Island larkspur	FE, SE, CRPR: 1B.1	LA	ND
<i>Dithyrea maritima</i>	Beach spectaclepod	ST, CRPR: 1B.1	LA, VEN	ND
<i>Dodecahema leptoceras</i>	Slender-horned spineflower	FE, SE, CRPR: 1B.1	LA, RIV, SB	ND
<i>Dudleya cymosa</i> ssp. <i>agouensis</i>	Agoura Hills dudleya	FT, CRPR: 1B.2	LA, VEN	ND
<i>Dudleya cymosa</i> ssp. <i>marcescens</i>	Marcescent dudleya	FT, SR, CRPR: 1B.2	LA, VEN	ND
<i>Dudleya cymosa</i> ssp. <i>ovatifolia</i>	Santa Monica dudleya	FT, CRPR: 1B.1	LA, OR	ND
<i>Dudleya parva</i>	Conejo dudleya	FT, CRPR: 1B.2	VEN	ND
<i>Dudleya stolonifera</i>	Laguna Beach dudleya	FT, ST, CRPR: 1B.1	OR	ND
<i>Dudleya verityi</i>	Verity's dudleya	FT, CRPR: 1B.1	VEN	ND
<i>Eremalche kernensis</i>	Kern mallow	FE, CRPR: 1B.1	VEN	ND
<i>Eremogone ursina</i>	Big Bear Valley sandwort	FT, CRPR: 1B.2	SB	ND

**TABLE 3.4.2-2  
STATE AND FEDERALLY LISTED SPECIES REPORTED IN THE SCAG REGION  
AND DESIGNATED CRITICAL HABITAT**

Scientific Name	Common Name	Status	Counties Where Reported	Designated Critical Habitat (Acres)
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>	Santa Ana River woollystar	FE, SE, CRPR: 1B.1	OR, RIV, SB	ND
<i>Erigeron parishii</i>	Parish's daisy	FT, CRPR: 1B.1	RIV, SB	4,420
<i>Eriogonum crocatum</i>	Conejo buckwheat	SR, CRPR: 1B.2	VEN	ND
<i>Eriogonum grande</i> var. <i>timorum</i>	San Nicolas Island buckwheat	SE, CRPR: 1B.1	VEN	ND
<i>Eriogonum kennedyi</i> var. <i>austromontanum</i>	Southern Mountain buckwheat	FT, CRPR: 1B.2	SB, VEN	ND
<i>Eriogonum ovalifolium</i> var. <i>vineum</i>	Cushenbury buckwheat	FE, CRPR: 1B.1	SB	6,950
<i>Eriogonum thornei</i>	Thorne's buckwheat	SE, CRPR: 1B.2	SB	ND
<i>Eryngium aristulatum</i> var. <i>parishii</i>	San Diego button celery	FE, SE, CRPR: 1B.1	IMP, RIV, LA, OR	ND
<i>Galium catalinense</i> ssp. <i>acrispum</i>	San Clemente Island bedstraw	SE, CRPR: 1B.2	LA	ND
<i>Helianthus niveus</i> ssp. <i>tephrodes</i>	Algodones Dune's sunflower	SE, CRPR: 1B.2	IMP	ND
<i>Ivesia callida</i>	Tahquitz ivesia	SR, CRPR: 1B.3	RIV	ND
<i>Lesquerella kingii</i> ssp. <i>bernardina</i>	San Bernardino Mountains bladderpod	FE, CRPR: 1B.1	SB	1,030
<i>Limnanthes alba</i> ssp. <i>Parishii</i>	Parish's meadowfoam	SE, CRPR: 1B.2	RIV	ND
<i>Lithophragma maximum</i>	San Clemente Island woodland star	FE, SE, CRPR: 1B.1	LA	ND
<i>Malacothamnus clementinus</i>	San Clemente Island bush mallow	FE, SE, CRPR: 1B.1	LA	ND
<i>Malacothrix squalida</i>	Island malacothrix	FE, CRPR: 1B.1	VEN	ND
<i>Nasturtium gambelii</i>	Gambel's water cress	FE, ST, CRPR: 1B.1	LA, OR, SB	ND
<i>Navarretia fossalis</i>	Spreading navarretia	FT, CRPR: 1B.1	LA, RIV	ND
<i>Opuntia basilaris</i> var. <i>treleasei</i>	Bakersfield cactus	FE, SE, CRPR: 1B.1	LA	ND
<i>Orcuttia californica</i>	California orcutt grass	FE, SE, CRPR: 1B.1	LA, RIV, VEN	ND
<i>Oxytheca parishii</i> var. <i>goodmania</i>	Chushenbury oxytheca	FE, CRPR: 1B.1	SB	3,150
<i>Packera ganderi</i>	Gander's ragwort	SR, CRPR: 1B.2	RIV	ND
<i>Pentachaeta lyonii</i>	Lyon's pentachaeta	FE, SE, CRPR: 1B.1	LA, VEN	3,580
<i>Phacelia stellaris</i>	Brand's star phacelia	FC, CRPR: 1B.1	LA, OR, RIV, SB	ND
<i>Physaria kingii</i> ssp. <i>bernardina</i>	San Bernardino Mountains bladderpod	FE, CRPR: 1B.1	SB	ND
<i>Poa atropurpurea</i>	San Bernardino blue grass	FE, CRPR: 1B.2	SB	ND
<i>Sibara filifolia</i>	Santa Cruz Island rock cress	FE, CRPR: 1B.1	LA	ND
<i>Sidalcea covillei</i>	Owens Valley checkerbloom	SE, CRPR: 1B.1	IMP	ND
<i>Sidalcea hickmanii</i> ssp.	Parish's checkerbloom	SR, CRPR: 1B.2	SB	ND

**TABLE 3.4.2-2  
STATE AND FEDERALLY LISTED SPECIES REPORTED IN THE SCAG REGION  
AND DESIGNATED CRITICAL HABITAT**

Scientific Name	Common Name	Status	Counties Where Reported	Designated Critical Habitat (Acres)
<i>parishii</i>				
<i>Sidalcea pedata</i>	Bird-foot checkerbloom	FE, SE, CRPR: 1B.1	SB	ND
<i>Taraxacum californicum</i>	California dandelion	FE, CRPR: 1B.1	SB	ND
<i>Thelypodium stenopetalum</i>	Slender-petaled thelypodium	FE, SE, CRPR: 1B.1	SB	ND
<i>Trichostema austromontanum</i> ssp. <i>compactum</i>	Hidden Lake bluecurls	FT, CRPR: 1B.1	RIV	ND
<i>Verbesina dissita</i>	Big-leaved crownbeard	FT, ST, CRPR: 1B.1	OR	ND
<b>Crustaceans</b>				
<i>Branchinecta conservation</i>	Conservancy fairy shrimp	FE	VEN	46,430
<i>Branchinecta lynchi</i>	Vernal pool fairy shrimp	FT	LA, RIV	46,430
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	FE	OR	200
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	FE	LA, OR, RIV, VEN	510
<b>Insects</b>				
<i>Dinacoma caseyi</i>	Casey's June beetle	FE	RIV	ND
<i>Euphilotes battoides allyni</i>	El Segundo blue butterfly	FE	LA	310
<i>Euphydryas editha quino</i>	Quino checkerspot butterfly	FE	RIV	97,030
<i>Euproserpinus euterpe</i>	Kern primrose sphinx moth	FT	VEN	ND
<i>Glaucopsyche lygdamus palosverdesensis</i>	Palos Verdes blue butterfly	FE	LA	90
<i>Rhaphiomidas terminatus abdominalis</i>	Delhi sands flower-loving fly	FE	RIV, SB	ND
<b>Fish</b>				
<i>Catostomus santaanae</i>	Santa Ana sucker	FT	LA, VEN, OR, RIV, SB	9,360
<i>Cyprinodon macularius</i>	Desert pupfish	FE, SE	IMP, RIV	ND
<i>Eucyclogobius newberryi</i>	Tidewater goby	FE	LA, OR, VEN	70
<i>Gasterosteus aculeatus williamsoni</i>	Unarmored threespine stickleback	FE, SE	LA, VEN, SB	ND
<i>Gila elegans</i>	Bonytail	FE, SE	IMP, SB	ND
<i>Oncorhynchus mykiss irideus</i>	Southern steelhead - southern California DPS	FE	LA, VEN, RIV	ND
<i>Ptychocheilus lucius</i>	Colorado pikeminnow	FE,SE	IMP, SB	ND
<i>Siphateles bicolor mohavensis</i>	Mohave tui chub	FE,SE	SB, LA	ND
<i>Xyrauchen texanus</i>	Razorback sucker	FE,SE	IMP, RIV	ND
<b>Amphibians</b>				
<i>Anaxyrus californicus</i>	Arroyo toad	FE	LA, VEN, OR, RIV, SB	30,800
<i>Batrachoseps major aridus</i>	Desert slender salamander	FE, SE	RIV	ND
<i>Rana draytonii</i>	California red-legged frog	FT	LA, RIV, SB,	22,590

**TABLE 3.4.2-2  
STATE AND FEDERALLY LISTED SPECIES REPORTED IN THE SCAG REGION  
AND DESIGNATED CRITICAL HABITAT**

Scientific Name	Common Name	Status	Counties Where Reported	Designated Critical Habitat (Acres)
			VEN	
<i>Rana muscosa</i>	Mountain yellow-legged frog	FE, SE	LA, SB, RIV	8,280
<b>Reptiles</b>				
<i>Charina umbratica</i>	Southern rubber boa	ST	VEN, RIV, SB	ND
<i>Chelonia mydas</i>	Green turtle	FT	LA	ND
<i>Coleonyx switaki</i>	Barefoot gecko	ST	IMP	ND
<i>Gambelia sila</i>	Blunt-nosed leopard lizard	FE, SE	VEN	ND
<i>Gopherus agassizii</i>	Desert tortoise	FT, ST	IMP, SB, LA, RIV	4,685,740
<i>Phrynosoma mcallii</i>	Flat-tailed horned lizard	SC	IMP, RIV	ND
<i>Uma inornata</i>	Coachella Valley fringe-toed lizard	FT, SE	RIV	11,790
<i>Xantusia riversiana</i>	Island night lizard	Delisted	LA, VEN	ND
<b>Birds</b>				
<i>Agelaius tricolor</i>	Tricolored blackbird	SE	LA, OR, RIV, SB, VEN	ND
<i>Artemisiospiza belli clementeae</i>	San Clemente sage sparrow	FT	LA	ND
<i>Buteo swainsoni</i>	Swainson's hawk	ST	LA, OR, RIV, SB	ND
<i>Charadrius alexandrinus nivosus</i>	Western snowy plover	FT	IMP, LA, OR, RIV, SB, VEN	1,400
<i>Coccyzus americanus occidentalis</i>	Western yellow-billed cuckoo	FT, SE	IMP, LA, RIV, SB, VEN	ND
<i>Colaptes chrysoides</i>	Gilded flicker	SE	IMP, RIV, SB	ND
<i>Empidonax traillii extimus</i>	Southwestern willow flycatcher	FE, SE	IMP, LA, OR, RIV, SB, VEN	24,980
<i>Falco peregrinus anatum</i>	American peregrine falcon	Delisted	LA	ND
<i>Gymnogyps californianus</i>	California condor	FE, SE	VEN, LA	7,750
<i>Haliaeetus leucocephalus</i>	Bald eagle	SE	IMP, LA, OR, RIV, SB	ND
<i>Lanius ludovicianus mearnsi</i>	San Clemente loggerhead shrike	FE	LA	ND
<i>Laterallus jamaicensis coturniculus</i>	California black rail	ST	IMP, LA, OR, RIV, SB	ND
<i>Melanerpes uropygialis</i>	Gila woodpecker	SE	IMP, RIV, SB	ND
<i>Micrathene whitneyi</i>	Elf owl	SE	IMP, RIV, SB	ND
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	SE	LA, OR, VEN	ND
<i>Pelecanus occidentalis californicus</i>	California brown pelican	Delisted	IMP, VEN	ND

**TABLE 3.4.2-2  
STATE AND FEDERALLY LISTED SPECIES REPORTED IN THE SCAG REGION  
AND DESIGNATED CRITICAL HABITAT**

Scientific Name	Common Name	Status	Counties Where Reported	Designated Critical Habitat (Acres)
<i>Polioptila californica californica</i>	Coastal California gnatcatcher	FT	LA, VEN, OR, RIV, SB	269,130
<i>Rallus longirostris levipes</i>	Light-footed clapper rail	FE, SE	OR, VEN	ND
<i>Rallus longirostris yumanensis</i>	Yuma clapper rail	FE, ST	IMP, RIV, SB	ND
<i>Riparia riparia</i>	Bank swallow	ST	LA, OR, VEN	ND
<i>Sterna antillarum browni</i>	California least tern	FE, SE	LA, OR, VEN	ND
<i>Synthliboramphus scrippsi</i>	Scripps's murrelet	FC, ST	LA	ND
<i>Vireo bellii arizonae</i>	Arizona Bell's vireo	SE	IMP, RIV, SB	ND
<i>Vireo bellii pusillus</i>	Least Bell's vireo	FE, SE	IMP, LA, OR, VEN, RIV, SB	14,300
<b>Mammals</b>				
<i>Ammospermophilus nelsoni</i>	Nelson's antelope squirrel	ST	LA, VEN	ND
<i>Arctocephalus townsendi</i>	Guadalupe fur-seal	FT, ST	VEN	ND
<i>Canis lupus</i>	Gray wolf	FE, SE	SB	ND
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	SC	IMP, LA, RIV, SB, VEN	ND
<i>Dipodomys merriami parvus</i>	San Bernardino kangaroo rat	FE	LA, RIV, SB	33,290
<i>Dipodomys stephensi</i>	Stephen's kangaroo rat	FE, ST	RIV, SB	ND
<i>Enhydra lutris nereis</i>	Southern sea otter	FT	VEN	ND
<i>Leptonycteris yerbabuenae</i>	Lesser long-nosed bat	FE	SB	ND
<i>Ovis canadensis nelsoni pop. 2</i>	Peninsular bighorn sheep DPS	FE, ST	IMP, RIV	347,620
<i>Perognathus longimembris pacificus</i>	Pacific pocket mouse	FE	LA, OR	ND
<i>Urocyon littoralis catalinae</i>	Santa Catalina Island fox	FE, ST	LA	ND
<i>Urocyon littoralis clementae</i>	San Clemente Island fox	ST	LA	ND
<i>Urocyon littoralis dickeyi</i>	San Nicolas Island fox	ST	VEN	ND
<i>Xerospermophilus mohavensis</i>	Mohave ground squirrel	ST	LA, SB	ND

**NOTE:**

California Native Plant Society: California Rare Plant Rank (CRPR) 1A = Plants Presumed Extinct in California; 1B = Plants Rare, Threatened, or Endangered in California and Elsewhere; 2 = Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere; 3 = Plants About Which We Need More Information; 4 = Plants of Limited Distribution. FC = Federal Candidate; FE = Federal Endangered; FT = Federal Threatened; SE = State Endangered; SR = State Rare; SB = San Bernardino County; LA = Los Angeles County; RIV = Riverside County; VEN = Ventura County; OR = Orange County; IMP = Imperial County; ND = none designated.

**SOURCE:**

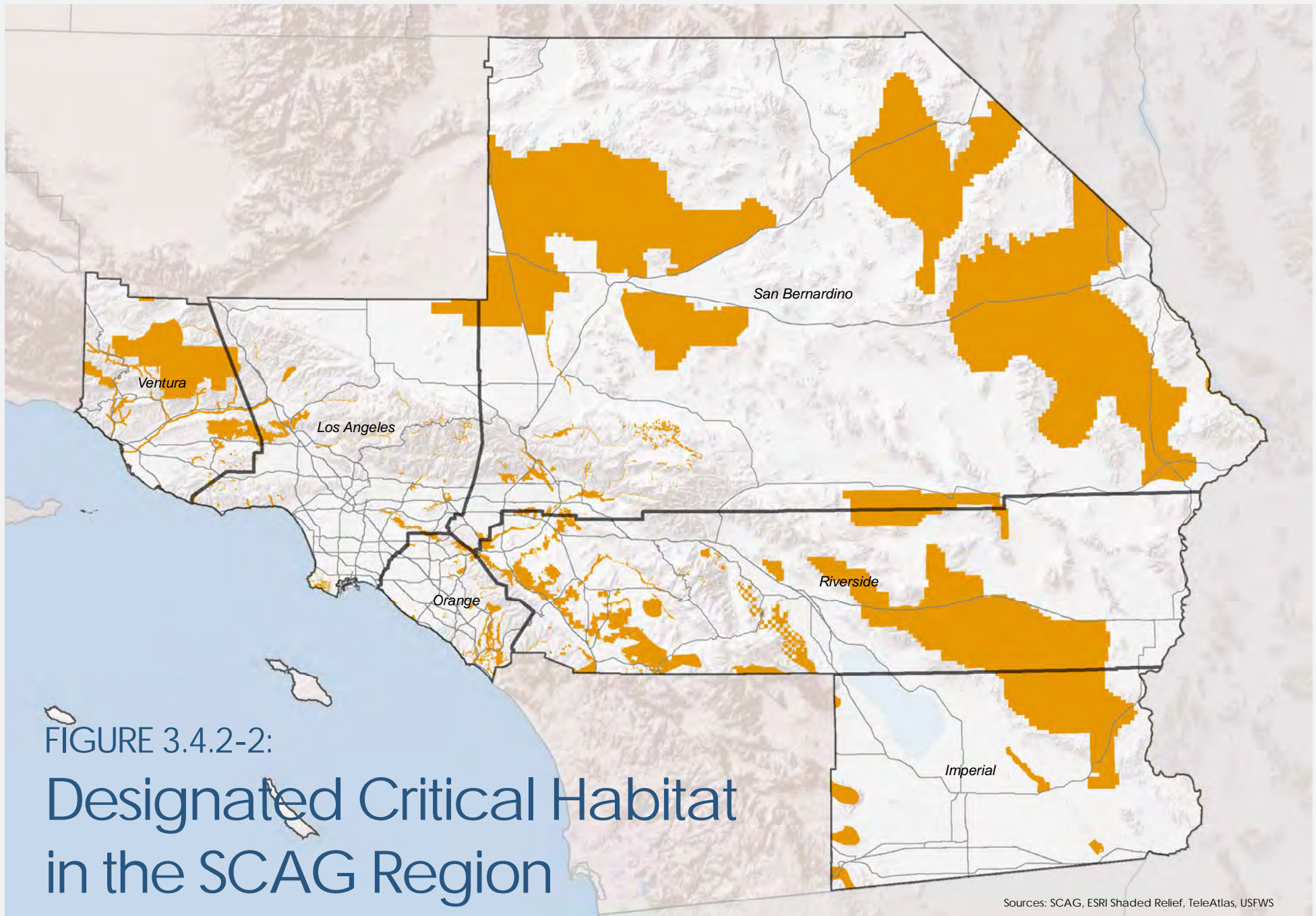
California Department of Fish and Wildlife. 2015. *Rarefind 5: A Database Application for the Use of the California Department of Fish and Game Natural Diversity Data Base*. Sacramento, CA.

### Critical Habitat

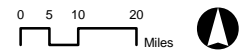
Critical habitat is a designated area defined by the United States Fish and Wildlife Service (USFWS) as being important for the survival and recovery of species listed as rare, threatened, or endangered pursuant to the federal ESA. Critical habitat for 29 species exists within the SCAG region (**Table 3.4.2-3, Critical Habitat in the SCAG Region**). Every county within the SCAG region contains USFWS designated critical habitat for listed species (**Figure 3.4.2-2, Designated Critical Habitat in the SCAG Region**). Of the 2,868,480 acres in Imperial County, 510,830 acres have been designated as critical habitat for three federally listed rare, threatened, or endangered species. Of the 3,041,280 total acres in Los Angeles County, 109,600 acres have been designated as critical habitat for 15 federally listed species. Of the 606,270 total acres in Orange County, 45,900 acres have been designated as critical habitat for nine federally listed species. Of the 4,613,120 total acres in Riverside County, 1,246,280 acres have been designated as critical habitat for 14 federally listed species. Of the 12,867,200 total acres in San Bernardino County, 3,648,900 acres have been designated as critical habitat for 13 federally listed species. Of the 1,413,120 total acres in Ventura County, 347,730 acres have been designated as critical habitat for 12 federally listed species.

**TABLE 3.4.2-3  
CRITICAL HABITAT IN THE SCAG REGION**

Scientific Name	Common Name	Status	Acres
<b>Imperial County</b>			
<b>Plants</b>			
<i>Astragalus magdalenae</i> var. <i>peirsonii</i>	Peirson's milk-vetch	FT, SE, CRPR: 1B.2	21,860
<b>Reptiles</b>			
<i>Gopherus agassizii</i>	Desert tortoise	FT, ST	340,690
<b>Mammals</b>			
<i>Orvis canadensis</i>	Peninsular bighorn sheep	FE, ST	146,040
<b>Rivers</b>			
<i>Colorado River*</i>	Colorado river		2,240
<b>TOTAL</b>			<b>510,830</b>
<b>Los Angeles County</b>			
<b>Plants</b>			
<i>Astragalus brauntonii</i>	Braunton's milk-vetch	FE, CRPR: 1B.1	1,220
<i>Pentachaeta lyonii</i>	Lyon's pentachaeta	FE, CRPR: 1B.1	1,270
<i>Brodiaea filifolia</i>	Thread-leaved brodiaea	FT, SE, CRPR: 1B.1	300
<b>Amphibians</b>			
<i>Anaxyrus californicus</i>	Arroyo toad	FE	4,830
<i>Rana draytonii</i>	California red-legged frog	FT	7,820
<i>Rana muscosa</i>	Southern mountain yellow-legged frog	FE, SE	4,480
<b>Reptiles</b>			
<i>Gopherus agassizii</i>	Desert tortoise	FT, ST	36,190
<b>Insects</b>			
<i>Euphilotes battoides allyni</i>	El Segundo blue butterfly	FE	310
<i>Glaucopsyche lygdamus palosverdesensis</i>	Palos Verdes blue butterfly	FE	90



Critical Habitat



**TABLE 3.4.2-3  
CRITICAL HABITAT IN THE SCAG REGION**

Scientific Name	Common Name	Status	Acres
<b>Fish</b>			
<i>Catostomus santaanae</i>	Santa Ana sucker	FT	2,230
<b>Birds</b>			
<i>Gymnogyps californianus</i>	California condor	FE, SE	7,750
<i>Polioptila californica californica</i>	Coastal California gnatcatcher	FT	36,330
<i>Vireo bellii pusillus</i>	Least Bell's vireo	FE, SE	2,640
<i>Empidonax traillii extimus</i>	Southwestern willow flycatcher	FE, SE	3,420
<i>Charadrius alexandrinus nivosus</i>	Western snowy plover	FT	170
<b>TOTAL</b>			<b>109,600</b>
<b>Orange County</b>			
<b>Plants</b>			
<i>Astragalus brauntonii</i>	Braunton's milk-vetch	FE, CRPR: 1B.1	830
<i>Brodiaea flifolia</i>	Thread-leaved brodiaea	FT, SE, CRPR: 1B.1	1,160
<b>Crustaceans</b>			
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	FE	200
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	FE	50
<b>Amphibians</b>			
<i>Anaxyrus californicus</i>	Arroyo toad	FE	5,030
<b>Fish</b>			
<i>Catostomus santaanae</i>	Santa Ana sucker	FT	650
<i>Eucyclogobius newberryi</i>	Tidewater goby	FE	70
<b>Birds</b>			
<i>Polioptila californica californica</i>	Coastal California gnatcatcher	FT	37,310
<i>Charadrius alexandrinus nivosus</i>	Western snowy plover	FT	610
<b>TOTAL</b>			<b>45,900</b>
<b>Riverside County</b>			
<b>Plants</b>			
<i>Allium munzii</i>	Munz's onion	FE, ST, CRPR: 1B.1	1,240
<i>Brodiaea flifolia</i>	Thread-leaved brodiaea	FT, SE, CRPR: 1B.1	3,060
<i>Ceanothus ophiochilus</i>	Vail Lake ceanothus	FT, SE, CRPR: 1B.1	200
<b>Amphibians</b>			
<i>Anaxyrus californicus</i>	Arroyo toad	FE	8,530
<i>Rana muscosa</i>	Mountain yellow-legged frog	FE, SE	1,510
<b>Reptiles</b>			
<i>Gopherus agassizii</i>	Desert tortoise	FT, ST	748,690
<i>Uma inornata</i>	Coachella Valley fringe-toed lizard	FT, SE	11,790
<b>Fish</b>			
<i>Catostomus santaanae</i>	Santa Ana sucker	FT	4,110
<b>Insects</b>			
<i>Euphydryas editha quino</i>	Quino checkerspot butterfly	FE	97,040
<b>Birds</b>			
<i>Vireo bellii pusillus</i>	Least Bell's vireo	FE, SE	7,800
<i>Polioptila californica californica</i>	Coastal California gnatcatcher	FT	151,350
<i>Empidonax traillii extimus</i>	Southwestern willow flycatcher	FE, SE	1,470



**TABLE 3.4.2-3  
CRITICAL HABITAT IN THE SCAG REGION**

Scientific Name	Common Name	Status	Acres
<b>Mammals</b>			
<i>Orvis canadensis</i>	Peninsular bighorn sheep	FE, ST	201,580
<i>Dipodomys merriami parvus</i>	San Bernardino kangaroo rat	FE	5,570
<b>Rivers</b>			
<i>Colorado River</i>	Colorado River		2,350
<b>TOTAL</b>			<b>1,246,280</b>
<b>San Bernardino County</b>			
<b>Plants</b>			
<i>Eriogonum ovalifolium</i> var. <i>vineum</i>	Cushenbury buckwheat	FE, CRPR: 1B.1	6,950
<i>Astragalus albens</i>	Cushenbury milk-vetch	FE, CRPR: 1B.1	4,370
<i>Oxytheca parishii</i> var. <i>goodmania</i>	Chushenbury oxytheca	FE, CRPR: 1B.1	3,120
<i>Erigeron parishii</i>	Parish's daisy	FT, CRPR: 1B.1	4,420
<i>Lesquerella kingii</i> ssp. <i>bernardina</i>	San Bernardino Mountains baldderpod	FE, CRPR: 1B.1	1,030
<b>Amphibians</b>			
<i>Anaxyrus californicus</i>	Arroyo toad	FE	7,380
<i>Rana muscosa</i>	Mountain yellow-legged frog	FE, SE	2,290
<b>Reptiles</b>			
<i>Gopherus agassizii</i>	Desert tortoise	FT, ST	3,560,170
<b>Fish</b>			
<i>Catostomus santaanae</i>	Santa Ana sucker	FT	2,340
<b>Birds</b>			
<i>Vireo bellii pusillus</i>	Least Bell's vireo	FE, SE	2,100
<i>Polioptila californica californica</i>	Coastal California gnatcatcher	FT	7,420
<i>Empidonax traillii extimus</i>	Southwestern willow flycatcher	FE, SE	9,010
<b>Mammals</b>			
<i>Dipodomys merriami parvus</i>	San Bernardino kangaroo rat	FE	27,730
<b>Rivers</b>			
<i>Colorado River</i>	Colorado River		10,560
<b>TOTAL</b>			<b>3,648,900</b>
<b>Ventura County</b>			
<b>Plants</b>			
<i>Astragalus brauntonii</i>	Braunton's milk-vetch	FE, CRPR: 1B.1	1,250
<i>Pentachaeta lyonii</i>	Lyon's pentachaeta	FE, CRPR: 1B.1	2,310
<i>Astragalus pyncnostachyus</i> var. <i>lanosissimus</i>	Ventura Marsh milk-vetch	FE, SE, CRPR: 1B.1	220
<b>Crustaceans</b>			
<i>Branchinecta lynchi</i>	Vernal pool fairy shrimp	FT	46,430
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	FE	230
<i>Branchinecta conservatio</i>	Conservancy fairy shrimp	FE	46,430
<b>Amphibians</b>			
<i>Anaxyrus californicus</i>	Arroyo toad	FE	5,050
<i>Rana draytonii</i>	California red-legged frog	FT	14,770

**TABLE 3.4.2-3  
CRITICAL HABITAT IN THE SCAG REGION**

Scientific Name	Common Name	Status	Acres
<b>Birds</b>			
<i>Vireo bellii pusillus</i>	Least Bell's vireo	FE, SE	1,760
<i>Poliophtila californica californica</i>	Coastal California gnatcatcher	FT	36,730
<i>Empidonax traillii extimus</i>	Southwestern willow flycatcher	FE, SE	11,080
<i>Charadrius alexandrinus nivosus</i>	Western snowy plover	FT	620
<b>TOTAL</b>			<b>346,730</b>
<b>TOTAL ALL COUNTIES</b>			<b>5,908,250</b>

**NOTE:**

California Native Plant Society: California Rare Plant Rank (CRPR): 1A = Plants Presumed Extinct in California; 1B = Plants Rare, Threatened, or Endangered in California and Elsewhere; 2 = Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere; 3 = Plants about Which We Need More Information; 4 = Plants of Limited Distribution. FC = Federal Candidate; FE = Federal Endangered; FT = Federal Threatened; SE = State Endangered; SR = State Rare.

\*The Colorado River Critical Habitat was designated for four federally listed species of endemic Colorado River Basin Fish: Razorback sucker (*Xyrauchen texanus*), Colorado squawfish (*Ptychocheilus Lucius*), humpback chub (*Gila cypha*), and bonytail chub (*Gila elegans*).

**SOURCE:**

California Department of Fish and Wildlife. 2015. *Rarefind 5: A Database Application for the Use of the California Department of Fish and Game Natural Diversity Data Base*. Sacramento, CA.

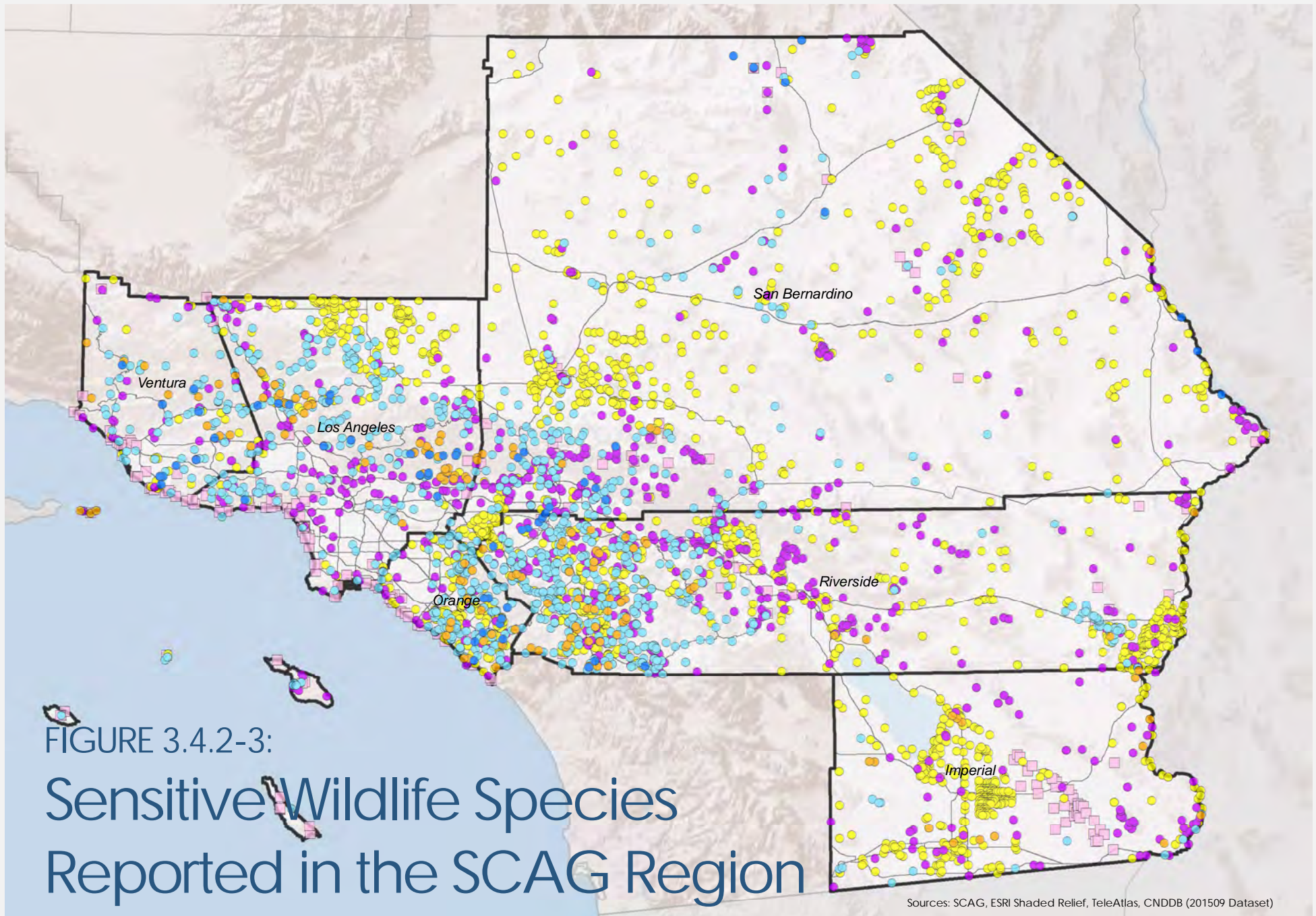
### Sensitive Wildlife Species

A query of the CNDDDB was performed to develop a list of sensitive wildlife species recognized by the USFWS as Federal Species of Concern, by the CDFW as California Species of Special Concern, or species that are tracked by the CNDDDB that could potentially occur in the SCAG region. In addition to the federally and State-listed wildlife species described above, there are 208 sensitive wildlife species with historic records located within the six counties of the SCAG region (**Table 3.4.2-4, Sensitive Wildlife Species Reported in the SCAG Region** and **Figure 3.4.2-3, Sensitive Wildlife Species Reported in the SCAG Region**).<sup>18</sup> Of these 208 sensitive wildlife species, 60 have records in Imperial County, 96 have records in Los Angeles County, 50 have records in Orange County, 108 have records in Riverside County, 107 have records in San Bernardino County, and 57 have records in Ventura County.

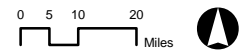
**TABLE 3.4.2-4  
SENSITIVE WILDLIFE SPECIES REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Reported
<b>Crustaceans</b>			
<i>Linderiella santarosae</i>	Santa Rosa Plateau fairy shrimp	CSA	RIV
<b>Mollusks</b>			
<i>Assimineia infima</i>	Badwater snail	CSA	SB
<i>Eremarionta immaculata</i>	white desertsnailed	CSA	RIV
<i>Eremarionta morongoana</i>	Morongo (=Colorado) desertsnailed	CSA	SB
<i>Eremarionta rowelli bakerensis</i>	Baker's desertsnailed	CSA	SB
<i>Eremarionta rowelli mccoiana</i>	California Mccoysnailed	CSA	RIV
<i>Haplotrema catalinense</i>	Santa Catalina lancetooth	CSA	LA
<i>Helminthoglypta ayresiana sanctaerucis</i>	Ayer's snail	CSA	VEN
<i>Helminthoglypta mohaveana</i>	Victorville shoulderband	CSA	SB
<i>Helminthoglypta taylori</i>	Westfork shoulderband	CSA	SB
<i>Helminthoglypta traskii traskii</i>	Trask shoulderband	CSA	VEN
<i>Micrarionta feralis</i>	San Nicolas islandsnailed	CSA	VEN
<i>Micrarionta gabbi</i>	San Clemente islandsnailed	CSA	LA
<i>Micrarionta opuntia</i>	Pricklypear islandsnailed	CSA	VEN
<i>Pristiloma shepardae</i>	Shepard's snail	CSA	LA
<i>Radiocentrum avalonense</i>	Catalina mountainsnailed	CSA	LA
<i>Sterkia clementina</i>	San Clemente Island blunt-top snail	CSA	LA, VEN
<i>Tryonia imitator</i>	Mimic tryonia (=California brackishwater snail)	CSA	LA, OR, VEN
<i>Xerarionta intercisa</i>	Horseshoe snail	CSA	LA
<i>Xerarionta redimita</i>	Wreathed cactusnailed	CSA	LA

<sup>18</sup> California Department of Fish and Wildlife. 2015. *Rarefind 5: A Database Application for the Use of the California Department of Fish and Game Natural Diversity Data Base*. Sacramento, CA.



- |                            |                |
|----------------------------|----------------|
| Sensitive Wildlife Species |                |
| ● Amphibian                | ■ Invertebrate |
| ● Bird                     | ● Mammal       |
| ● Fish                     | ● Reptile      |



**TABLE 3.4.2-4  
SENSITIVE WILDLIFE SPECIES REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Reported
<b>Arachnids</b>			
<i>Calileptoneta oasa</i>	Andreas Canyon leptonetid spider	CSA	RIV
<i>Socalchemmis gertschi</i>	Gertsch's socalchemmis spider	CSA	LA
<i>Socalchemmis icenoglei</i>	Icenogle's socalchemmis spider	CSA	RIV
<i>Texella kokoweef</i>	Kokoweef Crystal Cave harvestman	CSA	SB
<b>Insects</b>			
<i>Aglaothorax longipennis</i>	Santa Monica shieldback katydid	CSA	LA
<i>Ammopelmatus kelsoensis</i>	Kelso jerusalem cricket	CSA	SB
<i>Anomala carlsoni</i>	Carlson's dune beetle	CSA	IMP
<i>Anomala hardyorum</i>	Hardy's dune beetle	CSA	IMP
<i>Belostoma saratogae</i>	Saratoga Springs belostoman bug	CSA	SB
<i>Brennania belkini</i>	Belkin's dune tabanid fly	CSA	LA
<i>Callophrys mossii hidakupa</i>	San Gabriel Mountains elfin butterfly	CSA	LA, SB
<i>Carolella busckana</i>	Busck's gallmoth	CSA	LA, RIV, SB
<i>Ceratochrysis bradleyi</i>	Bradley's cuckoo wasp	CSA	RIV
<i>Ceratochrysis longimala</i>	Desert cuckoo wasp	CSA	LA, VEN, RIV
<i>Cicindela gabbii</i>	Western tidal-flat tiger beetle	CSA	LA, OR
<i>Cicindela hirticollis gravida</i>	Sandy beach tiger beetle	CSA	LA, OR, VEN
<i>Cicindela latesignata latesignata</i>	Western beach tiger beetle	CSA	LA, OR
<i>Cicindela senilis frosti</i>	Senile tiger beetle	CSA	LA, OR, RIV, VEN
<i>Cicindela tranquebarica viridissima</i>	Greenest tiger beetle	CSA	RIV
<i>Coelus globosus</i>	Globose dune beetle	CSA	LA, OR, VEN
<i>Danaus plexippus</i>	Monarch butterfly	CSA	LA, OR, VEN
<i>Diplectrona californica</i>	California diplectronan caddisfly	CSA	LA, SB
<i>Euchloe hyantis andrewsi</i>	Andrew's marble butterfly	CSA	SB
<i>Eucosma hennei</i>	Henne's eucosman moth	CSA	LA
<i>Glaresis arenata</i>	Kelso Dunes scarab glaresis beetle	CSA	SB
<i>Halictus harmonius</i>	Haromonius halictid bee	CSA	RIV, SB
<i>Hedychridium argenteum</i>	Riverside cuckoo wasp	CSA	RIV
<i>Hydroporus simplex</i>	Simple hydroporus diving beetle	CSA	SB
<i>Lepismadora algodones</i>	Algodones sand jewel beetle	CSA	IMP
<i>Macrobaenetes kelsoensis</i>	Kelso giant sand treader cricket	CSA	SB
<i>Macrobaenetes valgum</i>	Coachella giant sand treader cricket	CSA	RIV
<i>Melitta californica</i>	California mellitid bee	CSA	IMP, RIV
<i>Miloderes nelsoni</i>	Nelson's miloderes weevil	CSA	SB
<i>Minymischa ventura</i>	Ventura cuckoo wasp	CSA	VEN

**TABLE 3.4.2-4  
SENSITIVE WILDLIFE SPECIES REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Reported
<i>Oliarces clara</i>	Cheeseweed owlfly (cheeseweed moth lacewing)	CSA	IMP, RIV, SB
<i>Onychobaris langei</i>	Lange's El Segundo Dune weevil	CSA	LA
<i>Panoquina errans</i>	Wandering (=saltmarsh) skipper	CSA	LA, OR, VEN
<i>Paranomada californica</i>	California cuckoo bee	CSA	SB
<i>Parnopes borregoensis</i>	Borrego parnopes cuckoo wasp	CSA	SB
<i>Pelocoris shoshone</i>	Amargosa naucorid bug	CSA	SB
<i>Plebejus saepiolus aureolus</i>	San Gabriel Mountains blue butterfly	CSA	LA, SB
<i>Plebulina emigdionis</i>	San Emigdio blue butterfly	CSA	LA, VEN, SB
<i>Polyphylla erratica</i>	Death Valley June beetle	CSA	SB
<i>Pseudocotalpa andrewsi</i>	Andrew's dune scarab beetle	CSA	IMP
<i>Psychomastax deserticola</i>	Desert monkey grasshopper	CSA	SB
<i>Rhaphiomidas terminatus terminates</i>	El Segundo flower-loving fly	CSA	LA
<i>Rhopalolemma robertsi</i>	Roberts' rhopalolemma bee	CSA	RIV, SB
<i>Stenopelmatus cahuilans</i>	Coachella Valley jerusalem cricket	CSA	RIV
<i>Trigonoscuta brunnotesselata</i>	Brown tassel trigonoscuta weevil	CSA	SB
<i>Trigonoscuta dorothea dorothea</i>	Dorothy's El Segundo Dune weevil	CSA	LA, OR
<i>Trimerotropis occidentiloides</i>	Santa Monica grasshopper	CSA	LA, VEN
<b>Fish</b>			
<i>Catostomus latipinnis</i>	Flannelmouth sucker	CSA	SB
<i>Cyprinodon nevadensis amargosae</i>	Amargosa pupfish	SSC	SB
<i>Cyprinodon nevadensis nevadensis</i>	Saratoga Springs pupfish	SSC	SB
<i>Gila orcuttii</i>	Arroyo chub	SSC	SB, LA, VEN, OR, RIV
<i>Rhinichthys osculus</i> ssp. 1	Amargosa Canyon speckled dace	SSC	SB
<i>Rhinichthys osculus</i> ssp. 3	Santa Ana speckled dace	SSC	SB, LA, OR, RIV
<b>Amphibians</b>			
<i>Batrachoseps gabrieli</i>	San Gabriel slender salamander	CSA	LA, SB
<i>Batrachoseps pacificus</i>	Channel Islands slender salamander	CSA	VEN
<i>Ensatina eschscholtzii croceator</i>	Yellow-blotched salamander	SSC	LA
<i>Ensatina klauberi</i>	Large-blotched salamander	SSC	LA, RIV, SB
<i>Incilius alvarius</i>	Sonoran desert toad	SSC	IMP, SB
<i>Lithobates pipiens</i>	Northern leopard frog	SSC	IMP, OR, RIV
<i>Lithobates yavapaiensis</i>	Lowland (=Yavapai, San Sebastian & San Felipe) leopard frog	SSC	IMP, RIV
<i>Rana boylei</i>	Foothill yellow-legged frog	SSC	VEN
<i>Scaphiopus couchii</i>	Couch's spadefoot	SSC	IMP, RIV

**TABLE 3.4.2-4  
SENSITIVE WILDLIFE SPECIES REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Reported
<i>Spea hammondi</i>	Western spadefoot	SSC	LA, OR, RIV, VEN
<i>Taricha torosa</i>	Coast Range newt	SSC	LA, OR, RIV, VEN
<b>Reptiles</b>			
<i>Anniella pulchra pulchra</i>	Silvery legless lizard	SSC	LA, RIV, SB, VEN
<i>Aspidoscelis hyperythra</i>	Orangethroat whiptail	SSC	OR, RIV, SB
<i>Aspidoscelis tigris stejnegeri</i>	Coastal whiptail	CSA	LA, OR, RIV, SB, VEN
<i>Charina trivirgata</i>	Rosy boa	CSA	LA, OR, RIV, SB
<i>Coleonyx variegatus abbotti</i>	San Diego banded gecko	CSA	RIV
<i>Crotalus ruber</i>	Red-diamond rattlesnake	SSC	IMP, OR, RIV, SB
<i>Diadophis punctatus modestus</i>	San Bernardino ringneck snake	CSA	LA, RIV, SB
<i>Emys marmorata</i>	Western pond turtle	SSC	LA, OR, SB, RIV, VEN
<i>Heloderma suspectum cinctum</i>	Banded gila monster	SSC	IMP, SB, RIV
<i>Kinosternon sonoriense</i>	Sonoran mud turtle	SSC	IMP, RIV
<i>Lampropeltis zonata (parvirubra)</i>	California mountain kingsnake (San Bernardino population)	SSC	LA, RIV, SB
<i>Lampropeltis zonata (pulchra)</i>	California mountain kingsnake (San Diego population)	SSC	LA, OR
<i>Phrynosoma blainvillii</i>	Coast horned lizard	SSC	VEN, LA, OR, RIV, SB
<i>Plestiodon skiltonianus interparietalis</i>	Coronado Island skink	SSC	RIV
<i>Salvadora hexalepis virgultea</i>	Coast patch-nosed snake	SSC	OR, RIV, VEN
<i>Thamnophis hammondi</i>	Two-striped garter snake	SSC	LA, OR, RIV, SB, VEN
<i>Thamnophis sirtalis</i> ssp.	South coast garter snake	SSC	VEN
<i>Uma notata</i>	Colorado Desert fringe-toed lizard	SSC	IMP
<i>Uma scoparia</i>	Mojave fringe-toed lizard	SSC	SB, RIV
<b>Birds</b>			
<i>Accipiter cooperii</i>	Cooper's hawk	CSA	IMP, LA, OR, RIV, SB, VEN
<i>Aimophila ruficeps canescens</i>	Southern California rufous-crowned sparrow	CSA	LA, VEN, OR, RIV, SB
<i>Ammodramus savannarum</i>	Grasshopper sparrow	SSC	LA, OR
<i>Aquila chrysaetos</i>	Golden eagle	CFP	IMP, LA, OR, SB, RIV, VEN
<i>Ardea alba</i>	Great egret	CSA	IMP, RIV
<i>Ardea herodias</i>	Great blue heron	CSA	IMP, OR, RIV
<i>Artemisiospiza belli belli</i>	Bell's sage sparrow	CSA	LA, RIV, SB
<i>Asio flammeus</i>	Short-eared owl	SSC	LA
<i>Asio otus</i>	Long-eared owl	SSC	OR, RIV, SB
<i>Athene cunicularia</i>	Burrowing owl	SSC	IMP, LA, OR, RIV, SB, VEN
<i>Buteo regalis</i>	Ferruginous hawk	CSA	IMP, LA, OR, RIV, VEN
<i>Calypte costae</i>	Costa's hummingbird	CSA	SB



**TABLE 3.4.2-4  
SENSITIVE WILDLIFE SPECIES REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Reported
<i>Campylorhynchus brunneicapillus sandiegensis</i>	Coastal cactus wren	SSC	LA, OR, RIV
<i>Cardinalis cardinalis</i>	Northern cardinal	CSA	RIV, SB
<i>Charadrius montanus</i>	Mountain plover	SSC	IMP, RIV, LA, SB
<i>Circus cyaneus</i>	Northern harrier	SSC	OR, RIV
<i>Cypseloides niger</i>	Black swift	SSC	LA, RIV, SB
<i>Dendragapus fuliginosus howardi</i>	Mount Pinos sooty grouse	SSC	VEN
<i>Egretta thula</i>	Snowy egret	CSA	RIV
<i>Elanus leucurus</i>	White-tailed kite	CFP	LA, OR, RIV, SB, VEN
<i>Eremophila alpestris actia</i>	California horned lark	CSA	LA, OR, RIV, SB, VEN
<i>Falco columbarius</i>	Merlin	CSA	IMP, LA, RIV
<i>Falco mexicanus</i>	Prairie falcon	CSA	IMP, VEN, LA, RIV, SB
<i>Gelochelidon nilotica</i>	Gull-billed tern	SSC	IMP, RIV
<i>Hydroprogne caspia</i>	Caspian tern	CSA	IMP
<i>Icteria virens</i>	Yellow-breasted chat	SSC	IMP, LA, OR, RIV, SB, VEN
<i>Ixobrychus exilis</i>	Least bittern	SSC	IMP
<i>Junco hyemalis caniceps</i>	Gray-headed junco	CSA	IMP, RIV, SB
<i>Lanius ludovicianus</i>	Loggerhead shrike	SSC	IMP, LA, RIV, SB
<i>Larus californicus</i>	California gull	CSA	IMP
<i>Melospiza melodia graminea</i>	Channel Island song sparrow	SSC	LA
<i>Myiarchus tyrannulus</i>	Brown-crested flycatcher	CSA	IMP, RIV, SB
<i>Nycticorax nycticorax</i>	Black-crowned night heron	CSA	RIV
<i>Oceanodroma homochroa</i>	Ashy storm-petrel	SSC	LA, VEN
<i>Oreothlypis luciae</i>	Lucy's warbler	SSC	IMP, SB
<i>Oreothlypis virginiae</i>	Virginia's warbler	CSA	SB
<i>Pandion haliaetus</i>	Osprey	CSA	OR
<i>Phalacrocorax auritus</i>	Double-crested cormorant	CSA	VEN
<i>Piranga flava</i>	Hepatic tanager	CSA	SB
<i>Piranga rubra</i>	Summer tanager	SSC	IMP, RIV, SB
<i>Plegadis chihi</i>	White-faced ibis	CSA	IMP, RIV, LA
<i>Polioptila melanura</i>	Black-tailed gnatcatcher	CSA	IMP, RIV, SB
<i>Progne subis</i>	Purple martin	SSC	RIV
<i>Pyrocephalus rubinus</i>	Vermilion flycatcher	SSC	IMP, RIV, SB
<i>Rynchops niger</i>	Black skimmer	SSC	IMP, OR, RIV
<i>Setophaga petechia</i>	Yellow warbler	SSC	IMP, LA, RIV, SB, VEN
<i>Setophaga petechia sonorana</i>	Sonoran yellow warbler	SSC	IMP, RIV, SB
<i>Spinus lawrencei</i>	Lawrence's goldfinch	CSA	RIV
<i>Toxostoma bendirei</i>	Bendire's thrasher	SSC	RIV, SB



**TABLE 3.4.2-4  
SENSITIVE WILDLIFE SPECIES REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Reported
<i>Toxostoma crissale</i>	Crissal thrasher	SSC	IMP, RIV, SB
<i>Toxostoma lecontei</i>	Le Conte's thrasher	SSC	IMP, RIV, LA, SB
<i>Vireo vicinior</i>	Gray vireo	SSC	SB
<i>Xanthocephalus xanthocephalus</i>	Yellow-headed blackbird	SSC	RIV
<b>Mammals</b>			
<i>Antrozous pallidus</i>	Pallid bat	SSC	IMP, RIV, LA, OR, SB, VEN
<i>Chaetodipus californicus femoralis</i>	Dulzura pocket mouse	SSC	OR, RIV, VEN
<i>Chaetodipus fallax fallax</i>	Northwestern San Diego pocket mouse	SSC	LA, RIV, SB
<i>Chaetodipus fallax pallidus</i>	Pallid San Diego pocket mouse	SSC	IMP, RIV, LA, SB
<i>Choeronycteris mexicana</i>	Mexican long-tongued bat	SSC	OR, VEN
<i>Dipodomys merriami collinus</i>	Earthquake Merriam's kangaroo rat	CSA	RIV
<i>Euderma maculatum</i>	Spotted bat	SSC	LA, RIV, SB
<i>Eumops perotis californicus</i>	Western mastiff bat	SSC	IMP, LA, OR, VEN, RIV, SB
<i>Glaucomys sabrinus californicus</i>	San Bernardino flying squirrel	SSC	RIV, SB
<i>Lasionycteris noctivagans</i>	Silver-haired bat	CSA	LA, SB
<i>Lasiurus blossevillii</i>	Western red bat	SSC	LA, OR
<i>Lasiurus cinereus</i>	Hoary bat	CSA	IMP, RIV, LA, SB, VEN
<i>Lasiurus xanthinus</i>	Western yellow bat	SSC	IMP, LA, RIV, SB
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	SSC	LA, RIV, SB
<i>Lontra canadensis sonora</i>	Southwestern river otter	SSC	SB
<i>Macrotus californicus</i>	California leaf-nosed bat	SSC	IMP, LA, VEN, RIV, SB
<i>Microtus californicus mohavensis</i>	Mohave river vole	SSC	SB
<i>Microtus californicus stephensi</i>	South coast marsh vole	SSC	LA, OR, VEN
<i>Myotis ciliolabrum</i>	Western small-footed myotis	CSA	IMP, LA, SB, VEN
<i>Myotis evotis</i>	Long-eared myotis	CSA	LA, SB
<i>Myotis occultus</i>	Arizona Myotis	SSC	IMP, RIV
<i>Myotis thysanodes</i>	Fringed myotis	CSA	LA, RIV, SB, VEN
<i>Myotis velifer</i>	Cave myotis	SSC	IMP, RIV, SB
<i>Myotis volans</i>	Long-legged myotis	CSA	SB, LA, VEN
<i>Myotis yumanensis</i>	Yuma myotis	CSA	IMP, LA, OR, RIV, SB
<i>Neotamias panamintinus acrus</i>	Kingston Mountain chipmunk	CSA	SB
<i>Neotamias speciosus callipeplus</i>	Mount Pinos chipmunk	CSA	VEN
<i>Neotamias speciosus speciosus</i>	Lodgepole chipmunk	CSA	LA, RIV, SB
<i>Neotoma albigula venusta</i>	Colorado Valley woodrat	CSA	IMP, RIV, SB
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	SSC	LA, OR, RIV, SB, VEN
<i>Nyctinomops femorosaccus</i>	Pocketed free-tailed bat	SSC	IMP, LA, OR, RIV, SB

**TABLE 3.4.2-4  
SENSITIVE WILDLIFE SPECIES REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Reported
<i>Nyctinomops macrotis</i>	Big free-tailed bat	SSC	IMP, LA, OR, RIV
<i>Onychomys torridus ramona</i>	Southern grasshopper mouse	SSC	IMP, LA, RIV, SB
<i>Ovis canadensis nelsoni</i>	Desert bighorn sheep	CFP	IMP, RIV, SB, LA
<i>Perognathus alticolus alticolus</i>	White-eared pocket mouse	SSC	SB
<i>Perognathus alticolus inexpectatus</i>	Tehachapi pocket mouse	SSC	LA, VEN
<i>Perognathus inornatus</i>	San Joaquin Pocket Mouse	CSA	LA, VEN
<i>Perognathus longimembris bangsi</i>	Palm Springs pocket mouse	SSC	IMP, RIV
<i>Perognathus longimembris brevinasus</i>	Los Angeles pocket mouse	SSC	LA, RIV, SB
<i>Perognathus longimembris internationalis</i>	Jacumba pocket mouse	SSC	RIV
<i>Peromyscus maniculatus anacapae</i>	Anacapa Island deer mouse	SSC	VEN
<i>Puma concolor browni</i>	Yuma mountain lion	SSC	IMP
<i>Sigmodon arizonae plenus</i>	Colorado River cotton rat	SSC	RIV, SB
<i>Sigmodon hispidus eremicus</i>	Yuma hispid cotton rat	SSC	IMP
<i>Sorex ornatus salicornicus</i>	Southern California saltmarsh shrew	SSC	LA, OR, VEN
<i>Sorex ornatus willetti</i>	Santa Catalina shrew	SSC	LA
<i>Taxidea taxus</i>	American badger	SSC	IMP, RIV, LA, SB, VEN, OR
<i>Xerospermophilus tereticaudus chlorus</i>	Palm Springs round-tailed ground squirrel	SSC	RIV

**NOTE:**

SSC = California Species of Special Concern; CFP = California Fully Protected; CSA\* = California Special Animal; SB = San Bernardino County; LA = Los Angeles County; RIV = Riverside County; VEN = Ventura County; OR = Orange County; IMP = Imperial County.

\* California Special Animal (CSA) is a general term that refers to all of the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status. The Department of Fish and Wildlife considers the taxa on this list to be those of greatest conservation need. For those species with statuses identified by USFWS and/or CDFW, the status is noted. Those species included on the list due to identification by other governmental agencies and/or non-governmental conservation organizations are listed as CSA.

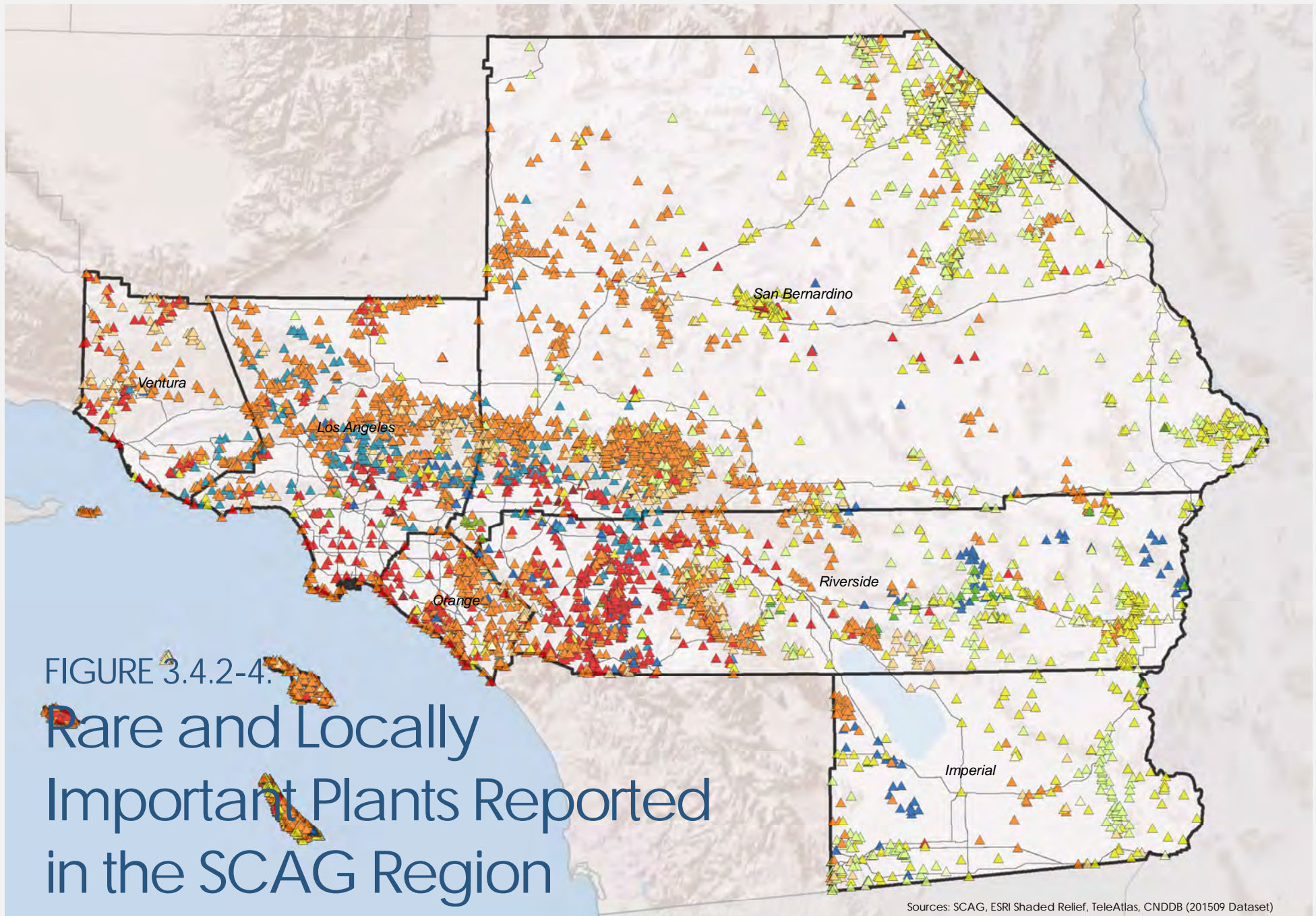
**SOURCE:**

California Department of Fish and Wildlife. 2015. *Rarefind 5: A Database Application for the Use of the California Department of Fish and Game Natural Diversity Data Base*. Sacramento, CA.

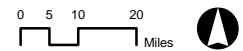
### *Rare and Locally Important Plants*

A search of the CNDDDB, the CNPS Rare Plant Inventory, and herbaria records for the six counties of the SCAG region was performed to develop a list of rare and locally important plants that could potentially occur in the SCAG region. In addition to the federally and State-listed plant species described above, there are 426 rare and locally important plant species with historic records located within the six counties of the SCAG region (**Table 3.4.2-5, *Rare and Locally Important Plants Reported in the SCAG Region*** and **Figure 3.4.2-4, *Rare and Locally Important Plants Reported in the SCAG Region***).<sup>19,20</sup>

<sup>19</sup> California Department of Fish and Wildlife. 2015. *Rarefind 5: A Database Application for the Use of the California*



CNPS Rank	▲ 1B.2	△ 2B.1	▲ 3	▲ 3.3
	▲ 1A	▲ 1B.3	▲ 2B.2	▲ 3.1
	▲ 1B.1	▲ 2A	▲ 2B.3	▲ 3.2
				▲ 4.2
				▲ 4.3



Of these 426 rare and locally important plant species, 58 have records in Imperial County, 138 have records in Los Angeles County, 46 have records in Orange County, 147 have records in Riverside County, 262 have records in San Bernardino County, and 61 have records in Ventura County.

**TABLE 3.4.2-5  
RARE AND LOCALLY IMPORTANT PLANTS REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Where Reported
<i>Abronia villosa</i> var. <i>aurita</i>	Chaparral sand-verbena	CRPR: 1B.1	IMP, OR, RIV, SB, VEN
<i>Abutilon parvulum</i>	Dwarf abutilon	CRPR: 2B.3	SB
<i>Acanthoscyphus parishii</i> var. <i>abramsii</i>	Abrams' oxytheca	CRPR: 1B.2	VEN
<i>Acanthoscyphus parishii</i> var. <i>cienegensis</i>	Cienega Seca oxytheca	CRPR: 1B.3	SB
<i>Acleisanthes longiflora</i>	Angel trumpets	CRPR: 2B.3	RIV
<i>Acleisanthes nevadensis</i>	Desert wing-fruit	CRPR: 2B.3	SB
<i>Acmispon argyraeus</i> var. <i>multicaulis</i>	Scrub lotus	CRPR: 1B.3	SB
<i>Acmispon argyraeus</i> var. <i>notitius</i>	Providence Mountains lotus	CRPR: 1B.3	SB
<i>Acmispon haydonii</i>	Pygmy lotus	CRPR: 1B.3	IMP, RIV
<i>Ageratina herbacea</i>	Desert ageratina	CRPR: 2B.3	SB
<i>Aliciella ripleyi</i>	Ripley's aliciella	CRPR: 2B.3	SB
<i>Aliciella triodon</i>	Coyote gilia	CRPR: 2B.2	SB
<i>Allium atrorubens</i> var. <i>atrorubens</i>	Great Basin onion	CRPR: 2B.3	SB
<i>Allium howellii</i> var. <i>clokeyi</i>	Mt. Pinos onion	CRPR: 1B.3	VEN, LA
<i>Allium marvinii</i>	Yucaipa onion	CRPR: 1B.1	RIV, SB
<i>Allium nevadense</i>	Nevada onion	CRPR: 2B.3	SB
<i>Ambrosia monogyra</i>	Singlewhorl burrobrush	CRPR: 2B.2	RIV, SB
<i>Ammoselinum giganteum</i>	Desert sand-parsley	CRPR: 2B.3	RIV
<i>Androstephium breviflorum</i>	Small-flowered androstephium	CRPR: 2B.2	RIV, SB
<i>Anomobryum julaceum</i>	Slender silver moss	CRPR: 4.2	LA
<i>Antennaria marginata</i>	White-margined everlasting	CRPR: 2B.3	SB
<i>Aphanisma blitoides</i>	Aphanisma	CRPR: 1B.2	LA, VEN, OR
<i>Arctomecon merriamii</i>	White bear poppy	CRPR: 2B.2	SB
<i>Arctostaphylos catalinae</i>	Santa Catalina Island manzanita	CRPR: 1B.2	LA
<i>Arctostaphylos glandulosa</i> ssp. <i>Gabrielensis</i>	San Gabriel manzanita	CRPR: 1B.2	LA, SB
<i>Arctostaphylos rainbowensis</i>	Rainbow manzanita	CRPR: 1B.1	RIV
<i>Arenaria lanuginosa</i> var. <i>saxosa</i>	Rock sandwort	CRPR: 2B.3	SB
<i>Argyrochosma limitanea</i> ssp.	Southwestern false cloak-fern	CRPR: 2B.1	SB

Department of Fish and Game Natural Diversity Data Base. Sacramento, CA.

<sup>20</sup> California Native Plant Society, Rare Plant Program. 2015. *Inventory of Rare and Endangered Plants*. Online edition, v8-02. Sacramento, CA.

**TABLE 3.4.2-5  
RARE AND LOCALLY IMPORTANT PLANTS REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Where Reported
<i>limitanea</i>			
<i>Asclepias nyctaginifolia</i>	Mojave milkweed	CRPR: 2B.1	SB
<i>Astragalus allochrous</i> var. <i>playanus</i>	Playa milk-vetch	CRPR: 2B.2	SB
<i>Astragalus bernardinus</i>	San Bernardino milk-vetch	CRPR: 1B.2	RIV, SB
<i>Astragalus cimae</i> var. <i>cimae</i>	Cima milk-vetch	CRPR: 1B.2	SB
<i>Astragalus didymocarpus</i> var. <i>milesianus</i>	Miles' milk-vetch	CRPR: 1B.2	VEN
<i>Astragalus hornii</i> var. <i>hornii</i>	Horn's milk-vetch	CRPR: 1B.1	SB
<i>Astragalus insularis</i> var. <i>harwoodii</i>	Harwood's milk-vetch	CRPR: 2B.2	IMP, RIV, SB
<i>Astragalus lentiginosus</i> var. <i>antonius</i>	San Antonio milk-vetch	CRPR: 1B.3	LA, SB
<i>Astragalus lentiginosus</i> var. <i>sierrae</i>	Big Bear Valley milk-vetch	CRPR: 1B.2	SB, LA, VEN
<i>Astragalus leucolobus</i>	Big Bear Valley woollypod	CRPR: 1B.2	LA, RIV, SB, VEN
<i>Astragalus nevinii</i>	San Clemente Island milk-vetch	CRPR: 1B.2	LA
<i>Astragalus pachypus</i> var. <i>jaegeri</i>	Jaeger's milk-vetch	CRPR: 1B.1	RIV
<i>Astragalus preussii</i> var. <i>laxiflorus</i>	Lancaster milk-vetch	CRPR: 1B.1	LA, RIV, SB
<i>Astragalus preussii</i> var. <i>preussii</i>	Preuss' milk-vetch	CRPR: 2B.3	SB
<i>Astragalus sabulorum</i>	Gravel milk-vetch	CRPR: 2B.2	IMP, RIV
<i>Astragalus tidestromii</i>	Tidestrom's milk-vetch	CRPR: 2B.2	SB
<i>Astrolepis cochisensis</i> ssp. <i>Cochisensis</i>	Scaly cloak fern	CRPR: 2B.3	SB
<i>Atriplex coulteri</i>	Coulter's saltbush	CRPR: 1B.2	LA, OR, SB, VEN
<i>Atriplex pacifica</i>	South coast saltscale	CRPR: 1B.2	LA, OR, VEN
<i>Atriplex parishii</i>	Parish's brittlescale	CRPR: 1B.1	LA, OR, RIV, SB
<i>Atriplex serenana</i> var. <i> davidsonii</i>	Davidson's saltscale	CRPR: 1B.2	LA, OR, RIV, VEN
<i>Ayenia compacta</i>	California ayenia	CRPR: 2B.3	RIV, SB
<i>Baccharis malibuensis</i>	Malibu baccharis	CRPR: 1B.1	LA, OR
<i>Bahia neomexicana</i>	Many-flowered bahia	CRPR: 2B.3	SB
<i>Berberis fremontii</i>	Fremont barberry	CRPR: 2B.3	SB
<i>Berberis harrisoniana</i>	Kofa barberry	CRPR: 1B.2	SB
<i>Bergerocactus emoryi</i>	Golden-spined cereus	CRPR: 2B.2	LA
<i>Blepharidachne kingii</i>	King's eyelash grass	CRPR: 2B.3	SB
<i>Boechera dispar</i>	Pinyon rockcress	CRPR: 2B.3	RIV, SB, LA
<i>Boechera johnstonii</i>	Johnston's rockcress	CRPR: 1B.2	RIV
<i>Boechera lincolnensis</i>	Lincoln rockcress	CRPR: 2B.3	LA, SB, RIV
<i>Boechera parishii</i>	Parish's rockcress	CRPR: 1B.2	SB
<i>Boechera peirsonii</i>	San Bernardino rockcress	CRPR: 1B.2	SB
<i>Boechera shockleyi</i>	Shockley's rockcress	CRPR: 2B.2	SB

**TABLE 3.4.2-5  
RARE AND LOCALLY IMPORTANT PLANTS REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Where Reported
<i>Botrychium crenulatum</i>	Scalloped moonwort	CRPR: 2B.2	LA, SB
<i>Botrychium minganense</i>	Mingan moonwort	CRPR: 2B.2	SB
<i>Bouteloua trifida</i>	Three-awned grama	CRPR: 2B.3	SB
<i>Brodiaea kinkiensis</i>	San Clemente Island brodiaea	CRPR: 1B.2	LA
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea	CRPR: 1B.1	RIV
<i>Brodiaea santarosae</i>	Santa Rosa Basalt brodiaea	CRPR: 1B.2	RIV
<i>Bursera microphylla</i>	Little-leaf elephant tree	CRPR: 2B.3	IMP, RIV
<i>California macrophylla</i>	Round-leaved filaree	CRPR: 1B.1	LA, RIV, VEN
<i>Calliandra eriophylla</i>	Pink fairy-duster	CRPR: 2B.3	IMP, RIV
<i>Calochortus clavatus</i> var. <i>gracilis</i>	Slender mariposa-lily	CRPR: 1B.2	LA, VEN
<i>Calochortus fimbriatus</i>	Late-flowered mariposa-lily	CRPR: 1B.2	LA, VEN
<i>Calochortus palmeri</i> var. <i>munzii</i>	San Jacinto mariposa-lily	CRPR: 1B.2	RIV
<i>Calochortus palmeri</i> var. <i>palmeri</i>	Palmer's mariposa-lily	CRPR: 1B.2	LA, RIV, SB, VEN
<i>Calochortus plummerae</i>	Plummer's mariposa-lily	CRPR: 4.2	LA, OR, RIV, SB, VEN
<i>Calochortus striatus</i>	Alkali mariposa-lily	CRPR: 1B.2	LA, SB
<i>Calochortus weedii</i> var. <i>intermedius</i>	Intermediate mariposa-lily	CRPR: 1B.2	LA, OR, RIV, SB
<i>Calyptridium pygmaeum</i>	Pygmy pussypaws	CRPR: 1B.2	SB
<i>Calystegia felix</i>	Lucky morning-glory	CRPR: 3.1	LA, SB, RIV
<i>Calystegia peirsonii</i>	Peirson's morning-glory	CRPR: 4.2	LA
<i>Camissoniopsis guadalupensis</i> ssp. <i>Clementina</i>	San Clemente Island evening-primrose	CRPR: 1B.2	LA
<i>Canbya candida</i>	White pygmy-poppy	CRPR: 4.2	LA, SB, IMP
<i>Carex comosa</i>	Bristly sedge	CRPR: 2B.1	SB
<i>Carex occidentalis</i>	Western sedge	CRPR: 2B.3	LA, RIV, SB
<i>Carnegiea gigantea</i>	Saguaro	CRPR: 2B.2	IMP, SB
<i>Castela emoryi</i>	Emory's crucifixion-thorn	CRPR: 2B.2	IMP, RIV, SB
<i>Castilleja hololeuca</i>	Island white-felted paintbrush	CRPR: 1B.2	VEN
<i>Castilleja lasiorhyncha</i>	San Bernardino Mountains owl's-clover	CRPR: 1B.2	RIV, SB
<i>Caulanthus lemmonii</i>	Lemmon's jewelflower	CRPR: 1B.2	VEN
<i>Caulanthus simulans</i>	Payson's jewelflower	CRPR: 4.2	RIV
<i>Centromadia parryi</i> ssp. <i>australis</i>	Southern tarplant	CRPR: 1B.1	LA, OR, VEN
<i>Centromadia pungens</i> ssp. <i>laevis</i>	Smooth tarplant	CRPR: 1B.1	RIV, SB
<i>Chaenactis carphoclinia</i> var. <i>peirsonii</i>	Peirson's pincushion	CRPR: 1B.3	IMP, RIV
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Orcutt's pincushion	CRPR: 1B.1	LA, OR, VEN
<i>Chaenactis parishii</i>	Parish's chaenactis	CRPR: 1B.3	RIV
<i>Chenopodium littoreum</i>	Coastal goosefoot	CRPR: 1B.2	LA



**TABLE 3.4.2-5  
RARE AND LOCALLY IMPORTANT PLANTS REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Where Reported
<i>Chloropyron tecopense</i>	Tecopa salty bird's-beak	CRPR: 1B.2	SB
<i>Chorizanthe blakleyi</i>	Blakley's spineflower	CRPR: 1B.3	VEN
<i>Chorizanthe parryi</i> var. <i>parryi</i>	Parry's spineflower	CRPR: 1B.1	LA, RIV, SB
<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	Long-spined spineflower	CRPR: 1B.2	OR, RIV
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	White-bracted spineflower	CRPR: 1B.2	LA, RIV, SB
<i>Chylismia arenaria</i>	Sand evening-primrose	CRPR: 2B.2	IMP, RIV, SB
<i>Cirsium arizonicum</i> var. <i>tenuisectum</i>	Desert mountain thistle	CRPR: 1B.2	SB
<i>Cladium californicum</i>	California saw-grass	CRPR: 2B.2	LA, RIV, SB
<i>Clarkia xantiana</i> ssp. <i>Parviflora</i>	Kern Canyon clarkia	CRPR: 4.2	LA
<i>Claytonia lanceolata</i> var. <i>peirsonii</i>	Peirson's spring beauty	CRPR: 3.1	SB
<i>Clinopodium chandleri</i>	San Miguel savory	CRPR: 1B.2	OR, RIV
<i>Colubrina californica</i>	Las Animas colubrina	CRPR: 2B.3	IMP, RIV
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>	Summer holly	CRPR: 1B.2	OR, RIV
<i>Constancea nevinii</i>	Nevin's woolly sunflower	CRPR: 1B.3	LA
<i>Cordylanthus parviflorus</i>	Small-flowered bird's-beak	CRPR: 2B.3	SB
<i>Coryphantha alversonii</i>	Alverson's foxtail cactus	CRPR: 4.3	IMP, RIV, SB
<i>Coryphantha chlorantha</i>	Desert pincushion	CRPR: 2B.1	SB
<i>Coryphantha vivipara</i> var. <i>rosea</i>	Viviparous foxtail cactus	CRPR: 2B.2	SB
<i>Crossosoma californicum</i>	Catalina crossosoma	CRPR: 1B.2	LA
<i>Cryptantha clokeyi</i>	Clokey's cryptantha	CRPR: 1B.2	LA, SB
<i>Cryptantha traskiae</i>	Trask's cryptantha	CRPR: 1B.1	LA, VEN
<i>Cryptantha wigginsii</i>	Wiggins' cryptantha	CRPR: 1B.2	LA, RIV
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	Peruvian dodder	CRPR: 2B.2	LA, SB
<i>Cylindropuntia munzii</i>	Munz's cholla	CRPR: 1B.3	IMP, RIV
<i>Cymopterus deserticola</i>	Desert cymopterus	CRPR: 1B.2	LA, SB
<i>Cymopterus gilmanii</i>	Gilman's cymopterus	CRPR: 2B.3	SB
<i>Cymopterus multinervatus</i>	Purple-nerve cymopterus	CRPR: 2B.2	SB
<i>Delphinium parryi</i> ssp. <i>blochmaniae</i>	Dune larkspur	CRPR: 1B.2	VEN
<i>Delphinium scaposum</i>	Bare-stem larkspur	CRPR: 2B.3	SB
<i>Delphinium umbracolorum</i>	Umbrella larkspur	CRPR: 1B.3	VEN
<i>Delphinium variegatum</i> ssp. <i>thornei</i>	Thorne's royal larkspur	CRPR: 1B.1	LA
<i>Dendromecon harfordii</i> var. <i>rhamnoides</i>	South island bush-poppy	CRPR: 3.1	LA
<i>Dieteria canescens</i> var. <i>ziegleri</i>	Ziegler's aster	CRPR: 1B.2	RIV

**TABLE 3.4.2-5  
RARE AND LOCALLY IMPORTANT PLANTS REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Where Reported
<i>Digitaria californica</i> var. <i>californica</i>	Arizona cottontop	CRPR: 2B.3	IMP, SB
<i>Dissanthelium californicum</i>	California dissanthelium	CRPR: 1B.2	LA
<i>Ditaxis claryana</i>	Glandular ditaxis	CRPR: 2B.2	IMP, RIV, SB
<i>Ditaxis serrata</i> var. <i>californica</i>	California ditaxis	CRPR: 3.2	RIV, IMP, SB
<i>Draba saxosa</i>	Southern California rock draba	CRPR: 1B.3	RIV, SB
<i>Drymocallis cuneifolia</i> var. <i>cuneifolia</i>	Wedgeleaf woodbeauty	CRPR: 1B.1	SB
<i>Drymocallis cuneifolia</i> var. <i>ewanii</i>	Ewan's cinquefoil	CRPR: 1B.3	LA
<i>Dryopteris filix-mas</i>	Male fern	CRPR: 2B.3	SB
<i>Dudleya abramsii</i> ssp. <i>affinis</i>	San Bernardino Mountains dudleya	CRPR: 1B.2	SB
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	Blochman's dudleya	CRPR: 1B.1	LA, OR, VEN
<i>Dudleya cymosa</i> ssp. <i>crebrifolia</i>	San Gabriel River dudleya	CRPR: 1B.2	LA
<i>Dudleya densiflora</i>	San Gabriel Mountains dudleya	CRPR: 1B.1	LA
<i>Dudleya multicaulis</i>	Many-stemmed dudleya	CRPR: 1B.2	LA, OR, RIV, SB
<i>Dudleya virens</i> ssp. <i>hassei</i>	Catalina Island dudleya	CRPR: 1B.2	LA
<i>Dudleya virens</i> ssp. <i>insularis</i>	Island green dudleya	CRPR: 1B.2	LA, VEN
<i>Dudleya virens</i> ssp. <i>virens</i>	Bright green dudleya	CRPR: 1B.2	LA
<i>Dudleya viscida</i>	Sticky dudleya	CRPR: 1B.2	OR, RIV
<i>Echinocereus engelmannii</i> var. <i>howei</i>	Howe's hedgehog cactus	CRPR: 1B.1	SB
<i>Elymus salina</i>	Salina Pass wild-rye	CRPR: 2B.3	SB
<i>Enneapogon desvauxii</i>	Nine-awned pappus grass	CRPR: 2B.2	SB
<i>Eremogone congesta</i> var. <i>charlestonensis</i>	Charleston sandwort	CRPR: 1B.3	SB
<i>Eriothera boothii</i> ssp. <i>boothii</i>	Booth's evening-primrose	CRPR: 2B.3	RIV, SB
<i>Eriothera boothii</i> ssp. <i>intermedia</i>	Booth's hairy evening-primrose	CRPR: 2B.3	SB
<i>Eriastrum harwoodii</i>	Harwood's eriastrum	CRPR: 1B.2	RIV, SB
<i>Eriastrum rosamondense</i>	Rosamond eriastrum	CRPR: 1B.1	LA
<i>Erigeron oxyphyllus</i>	Wand-like fleabane daisy	CRPR: 2B.3	SB
<i>Erigeron uncialis</i> var. <i>uncialis</i>	Limestone daisy	CRPR: 1B.2	SB
<i>Erigeron utahensis</i>	Utah daisy	CRPR: 2B.3	SB
<i>Eriodictyon angustifolium</i>	Narrow-leaved yerba santa	CRPR: 2B.3	SB
<i>Eriogonum bifurcatum</i>	Forked buckwheat	CRPR: 1B.2	SB
<i>Eriogonum contiguum</i>	Ash Meadows buckwheat	CRPR: 2B.3	SB
<i>Eriogonum evanidum</i>	Vanishing wild buckwheat	CRPR: 1B.1	RIV, SB
<i>Eriogonum giganteum</i> var. <i>formosum</i>	San Clemente Island buckwheat	CRPR: 1B.2	LA



**TABLE 3.4.2-5  
RARE AND LOCALLY IMPORTANT PLANTS REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Where Reported
<i>Eriogonum kennedyi</i> var. <i>alpigenum</i>	Southern alpine buckwheat	CRPR: 1B.3	LA, SB, VEN
<i>Eriogonum microthecum</i> var. <i>johnstonii</i>	Johnston's buckwheat	CRPR: 1B.3	LA, SB
<i>Eriogonum microthecum</i> var. <i>lacus-ursi</i>	Bear Lake buckwheat	CRPR: 1B.1	SB
<i>Eriogonum umbellatum</i> var. <i>juniporinum</i>	Juniper sulphur-flowered buckwheat	CRPR: 2B.3	SB
<i>Erioneuron pilosum</i>	Hairy erioneuron	CRPR: 2B.3	SB
<i>Eriophyllum mohavense</i>	Barstow woolly sunflower	CRPR: 1B.2	LA, SB
<i>Erysimum insulare</i>	Island wallflower	CRPR: 1B.3	VEN
<i>Eschscholzia minutiflora</i> ssp. <i>twisselmannii</i>	Red Rock poppy	CRPR: 1B.2	SB
<i>Eucnide rupestris</i>	Annual rock-nettle	CRPR: 2B.2	IMP
<i>Euphorbia abramsiana</i>	Abrams' spurge	CRPR: 2B.2	IMP, RIV, SB
<i>Euphorbia arizonica</i>	Arizona spurge	CRPR: 2B.3	IMP, RIV
<i>Euphorbia exstipulata</i> var. <i>exstipulata</i>	Clark Mountain spurge	CRPR: 2B.1	SB
<i>Euphorbia jaegeri</i>	Orocopia Mountains spurge	CRPR: 1B.1	RIV, SB
<i>Euphorbia misera</i>	Cliff spurge	CRPR: 2B.2	LA, OR, RIV
<i>Euphorbia parryi</i>	Parry's spurge	CRPR: 2B.3	SB
<i>Euphorbia platysperma</i>	Flat-seeded spurge	CRPR: 1B.2	IMP, RIV, SB
<i>Fimbristylis thermalis</i>	Hot springs fimbristylis	CRPR: 2B.2	LA, SB
<i>Frasera albomarginata</i> var. <i>albomarginata</i>	Desert green-gentian	CRPR: 2B.2	SB
<i>Frasera albomarginata</i> var. <i>induta</i>	Clark Mountain green-gentian	CRPR: 1B.2	SB
<i>Fritillaria ojaiensis</i>	Ojai fritillary	CRPR: 1B.2	VEN
<i>Galium angustifolium</i> ssp. <i>jacinticum</i>	San Jacinto Mountains bedstraw	CRPR: 1B.3	RIV
<i>Galium californicum</i> ssp. <i>primum</i>	Alvin Meadow bedstraw	CRPR: 1B.2	RIV, SB
<i>Galium catalinense</i> ssp. <i>catalinense</i>	Santa Catalina Island bedstraw	CRPR: 1B.2	LA
<i>Galium grande</i>	San Gabriel bedstraw	CRPR: 1B.2	LA
<i>Galium hilendiae</i> ssp. <i>kingstonense</i>	Kingston Mountains bedstraw	CRPR: 1B.3	SB
<i>Galium proliferum</i>	Desert bedstraw	CRPR: 2B.2	SB
<i>Galium wrightii</i>	Wright's bedstraw	CRPR: 2B.3	SB
<i>Gambelia speciosa</i>	Showy island snapdragon	CRPR: 1B.2	LA
<i>Gentiana fremontii</i>	Fremont's gentian	CRPR: 2B.3	SB
<i>Geothallus tuberosus</i>	Campbell's liverwort	CRPR: 1B.1	RIV
<i>Geraea viscida</i>	Sticky geraea	CRPR: 2B.3	IMP
<i>Gilia leptantha</i> ssp. <i>leptantha</i>	San Bernardino gilia	CRPR: 1B.3	SB

**TABLE 3.4.2-5  
RARE AND LOCALLY IMPORTANT PLANTS REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Where Reported
<i>Githopsis diffusa</i> ssp. <i>filicaulis</i>	Mission Canyon bluecup	CRPR: 3.1	RIV
<i>Glossopetalon pungens</i>	Pungent glossopetalon	CRPR: 1B.2	SB
<i>Graphis saxorum</i>	Baja rock lichen	CRPR: 3	LA
<i>Grimmia vaginulata</i>	Vaginulate grimmia	CRPR: 1B.1	SB
<i>Grusonia parishii</i>	Parish's club-cholla	CRPR: 2B.2	IMP, RIV, SB
<i>Harpagonella palmeri</i>	Palmer's grapplinghook	CRPR: 4.2	LA, OR, RIV
<i>Hazardia cana</i>	San Clemente Island hazardia	CRPR: 1B.2	LA
<i>Hedeoma drummondii</i>	Drummond's false pennyroyal	CRPR: 2B.2	SB
<i>Helianthus inexpectatus</i>	Newhall sunflower	CRPR: 1B.1	LA
<i>Helianthus nuttallii</i> ssp. <i>parishii</i>	Los Angeles sunflower	CRPR: 1A	LA, OR, SB
<i>Herissantia crispa</i>	Curly herissantia	CRPR: 2B.3	IMP
<i>Hesperocyparis forbesii</i>	Tecate cypress	CRPR: 1B.1	OR, RIV
<i>Heuchera hirsutissima</i>	Shaggy-haired alumroot	CRPR: 1B.3	RIV, SB
<i>Heuchera maxima</i>	Island alumroot	CRPR: 1B.2	VEN
<i>Heuchera parishii</i>	Parish's alumroot	CRPR: 1B.3	RIV, SB
<i>Horkelia cuneata</i> var. <i>puberula</i>	Mesa horkelia	CRPR: 1B.1	LA, OR, RIV, SB, VEN
<i>Horkelia wilderae</i>	Barton Flats horkelia	CRPR: 1B.1	SB
<i>Hulsea californica</i>	San Diego hulsea	CRPR: 1B.3	RIV
<i>Hulsea mexicana</i>	Mexican hulsea	CRPR: 2B.3	IMP
<i>Hulsea vestita</i> ssp. <i>pygmaea</i>	Pygmy hulsea	CRPR: 1B.3	SB
<i>Hymenopappus filifolius</i> var. <i>eriododus</i>	Hairy-podded fine-leaf hymenopappus	CRPR: 2B.3	SB
<i>Hymenoxys odorata</i>	Bitter hymenoxys	CRPR: 2B.1	IMP, RIV, SB
<i>Imperata brevifolia</i>	California satintail	CRPR: 2B.1	IMP, LA, OR, RIV, SB, VEN
<i>Ipomopsis effusa</i>	Baja California ipomopsis	CRPR: 2B.1	IMP
<i>Ipomopsis tenuifolia</i>	Slender-leaved ipomopsis	CRPR: 2B.3	IMP
<i>Isocoma menziesii</i> var. <i>decumbens</i>	Decumbent goldenbush	CRPR: 1B.2	LA, OR
<i>Ivesia argyrocoma</i> var. <i>argyrocoma</i>	Silver-haired ivesia	CRPR: 1B.2	SB
<i>Ivesia jaegeri</i>	Jaeger's ivesia	CRPR: 1B.3	SB
<i>Ivesia patellifera</i>	Kingston Mountains ivesia	CRPR: 1B.3	SB
<i>Jaffueliobryum raui</i>	Rau's jaffueliobryum moss	CRPR: 2B.3	RIV, SB
<i>Jaffueliobryum wrightii</i>	Wright's jaffueliobryum moss	CRPR: 2B.3	RIV, SB
<i>Juncus interior</i>	Inland rush	CRPR: 2B.2	SB
<i>Juncus luciensis</i>	Santa Lucia dwarf rush	CRPR: 1B.2	RIV
<i>Juncus nodosus</i>	Knotted rush	CRPR: 2B.3	SB
<i>Koeberlinia spinosa</i> ssp. <i>tenuispina</i>	Slender-spined all thorn	CRPR: 2B.2	IMP, RIV
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	CRPR: 1B.1	LA, OR, RIV, SB, VEN

**TABLE 3.4.2-5  
RARE AND LOCALLY IMPORTANT PLANTS REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Where Reported
<i>Lavatera assurgentiflora</i> ssp. <i>Assurgentiflora</i>	Island mallow	CRPR: 1B.1	VEN
<i>Lavatera assurgentiflora</i> ssp. <i>glabra</i>	Southern island mallow	CRPR: 1B.1	LA
<i>Layia heterotricha</i>	Pale-yellow layia	CRPR: 1B.1	LA, VEN
<i>Lepechinia cardiophylla</i>	Heart-leaved pitcher sage	CRPR: 1B.2	OR, RIV
<i>Lepechinia rossii</i>	Ross' pitcher sage	CRPR: 1B.2	LA, VEN
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	CRPR: 4.3	LA, OR, RIV, SB, VEN
<i>Leptosiphon floribundus</i> ssp. <i>hallii</i>	Santa Rosa Mountains leptosiphon	CRPR: 1B.3	RIV
<i>Leptosiphon pygmaeus</i> ssp. <i>pygmaeus</i>	Pygmy leptosiphon	CRPR: 1B.2	LA
<i>Lewisia brachycalyx</i>	Short-sepaled lewisia	CRPR: 2B.2	SB
<i>Lilium parryi</i>	Lemon lily	CRPR: 1B.2	LA, RIV, SB
<i>Linanthus bernardinus</i>	Pioneertown linanthus	CRPR: 1B.2	SB
<i>Linanthus concinnus</i>	San Gabriel linanthus	CRPR: 1B.2	LA, SB
<i>Linanthus jaegeri</i>	San Jacinto linanthus	CRPR: 1B.2	RIV
<i>Linanthus killipii</i>	Baldwin Lake linanthus	CRPR: 1B.2	SB
<i>Linanthus maculatus</i>	Little San Bernardino Mtns. linanthus	CRPR: 1B.2	IMP, RIV, SB
<i>Linanthus orcuttii</i>	Orcutt's linanthus	CRPR: 1B.3	LA, RIV, SB
<i>Linum puberulum</i>	Plains flax	CRPR: 2B.3	SB
<i>Lithospermum incisum</i>	Plains stoneseed	CRPR: 2B.3	SB
<i>Loeflingia squarrosa</i> var. <i>artemisiarum</i>	Sagebrush loeflingia	CRPR: 2B.2	LA, SB
<i>Lomatium insulare</i>	San Nicolas Island lomatium	CRPR: 1B.2	LA, VEN
<i>Lonicera subspicata</i> var. <i>subspicata</i>	Santa Barbara honeysuckle	CRPR: 1B.2	LA
<i>Lupinus excubitus</i> var. <i>medius</i>	Mountain Springs bush lupine	CRPR: 1B.3	IMP
<i>Lupinus guadalupensis</i>	Guadalupe Island lupine	CRPR: 1B.2	LA
<i>Lupinus peirsonii</i>	Peirson's lupine	CRPR: 1B.3	LA
<i>Lycium brevipes</i> var. <i>hassei</i>	Santa Catalina Island desert-thorn	CRPR: 1B.1	LA, OR
<i>Lycium parishii</i>	Parish's desert-thorn	CRPR: 2B.3	IMP, SB, RIV
<i>Lycium verrucosum</i>	San Nicolas Island desert-thorn	CRPR: 1A	VEN
<i>Lyonothamnus floribundus</i> ssp. <i>Aspleniifolius</i>	Santa Cruz Island ironwood	CRPR: 1B.2	LA
<i>Lyonothamnus floribundus</i> ssp. <i>Floribundus</i>	Santa Catalina Island ironwood	CRPR: 1B.2	LA
<i>Malacothamnus davidsonii</i>	Davidson's bush-mallow	CRPR: 1B.2	LA, VEN
<i>Malacothamnus parishii</i>	Parish's bush-mallow	CRPR: 1A	SB

**TABLE 3.4.2-5  
RARE AND LOCALLY IMPORTANT PLANTS REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Where Reported
<i>Malacothrix foliosa</i> ssp. <i>Crispifolia</i>	Wavy-leaved malacothrix	CRPR: 1B.2	VEN
<i>Malacothrix junakii</i>	Junak's malacothrix	CRPR: 1B.1	VEN
<i>Malacothrix similis</i>	Mexican malacothrix	CRPR: 2A	VEN
<i>Malaxis monophyllos</i> var. <i>brachypoda</i>	White bog adder's-mouth	CRPR: 2B.1	RIV, SB
<i>Malperia tenuis</i>	Brown turbans	CRPR: 2B.3	IMP
<i>Mammillaria grahamii</i> var. <i>grahamii</i>	Graham fishhook cactus	CRPR: 2B.2	SB
<i>Marina orcuttii</i> var. <i>orcuttii</i>	California marina	CRPR: 1B.3	RIV
<i>Matelea parvifolia</i>	Spear-leaf matelea	CRPR: 2B.3	IMP, RIV, SB
<i>Maurandella antirrhiniflora</i>	Violet twining snapdragon	CRPR: 2B.3	SB
<i>Meesia uliginosa</i>	Broad-nerved hump moss	CRPR: 2B.2	RIV
<i>Menodora scabra</i>	Rough menodora	CRPR: 2B.3	SB
<i>Menodora spinescens</i> var. <i>mohavensis</i>	Mojave menodora	CRPR: 1B.2	SB
<i>Mentzelia hirsutissima</i>	Hairy stickleaf	CRPR: 2B.3	IMP
<i>Mentzelia polita</i>	Polished blazing star	CRPR: 1B.2	SB
<i>Mentzelia pterosperma</i>	Wing-seed blazing star	CRPR: 2B.2	SB
<i>Mentzelia puberula</i>	Darlington's blazing star	CRPR: 2B.2	IMP, RIV, SB
<i>Mentzelia tricuspid</i>	Spiny-hair blazing star	CRPR: 2B.1	IMP, RIV, SB
<i>Mentzelia tridentata</i>	Creamy blazing star	CRPR: 1B.3	IMP, RIV, SB
<i>Mielichhoferia shevockii</i>	Shevock's copper moss	CRPR: 1B.2	RIV
<i>Mimulus exiguus</i>	San Bernardino Mountains monkeyflower	CRPR: 1B.2	SB
<i>Mimulus mohavensis</i>	Mojave monkeyflower	CRPR: 1B.2	SB
<i>Mimulus purpureus</i>	Little purple monkeyflower	CRPR: 1B.2	SB, RIV
<i>Mimulus traskiae</i>	Santa Catalina Island monkeyflower	CRPR: 1A	LA
<i>Mirabilis coccinea</i>	Red four o'clock	CRPR: 2B.3	SB
<i>Monarda pectinata</i>	Plains bee balm	CRPR: 2B.3	SB
<i>Monardella australis</i> ssp. <i>jokerstii</i>	Jokerst's monardella	CRPR: 1B.1	SB
<i>Monardella boydii</i>	Boyd's monardella	CRPR: 1B.2	SB
<i>Monardella eremicola</i>	Clark Mountain monardella	CRPR: 1B.3	SB
<i>Monardella hypoleuca</i> ssp. <i>hypoleuca</i>	White-veined monardella	CRPR: 1B.3	LA, VEN
<i>Monardella hypoleuca</i> ssp. <i>intermedia</i>	Intermediate monardella	CRPR: 1B.3	OR, RIV
<i>Monardella linoides</i> ssp. <i>oblonga</i>	Tehachapi monardella	CRPR: 1B.3	LA, VEN
<i>Monardella macrantha</i> ssp. <i>hallii</i>	Hall's monardella	CRPR: 1B.3	LA, OR, RIV, SB
<i>Monardella nana</i> ssp. <i>leptosiphon</i>	San Felipe monardella	CRPR: 1B.2	RIV

**TABLE 3.4.2-5  
RARE AND LOCALLY IMPORTANT PLANTS REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Where Reported
<i>Monardella pringlei</i>	Pringle's monardella	CRPR: 1A	RIV, SB
<i>Monardella robisonii</i>	Robison's monardella	CRPR: 1B.3	RIV, SB
<i>Monardella sinuata</i> ssp. <i>sinuata</i>	Southern curly-leaved monardella	CRPR: 1B.2	VEN
<i>Muhlenbergia alopecuroides</i>	Wolftail	CRPR: 2B.2	SB
<i>Muhlenbergia appressa</i>	Appressed muhly	CRPR: 2B.2	LA, SB
<i>Muhlenbergia arsenei</i>	Tough muhly	CRPR: 2B.3	SB
<i>Muhlenbergia californica</i>	California muhly	CRPR: 4.3	LA, SB, RIV
<i>Muhlenbergia fragilis</i>	Delicate muhly	CRPR: 2B.3	SB
<i>Muhlenbergia pauciflora</i>	Few-flowered muhly	CRPR: 2B.3	SB
<i>Munroa squarrosa</i>	False buffalo-grass	CRPR: 2B.2	SB
<i>Munzothamnus blairii</i>	Blair's munzothamnus	CRPR: 1B.2	LA
<i>Myosurus minimus</i> ssp. <i>Apus</i>	Little mousetail	CRPR: 3.1	RIV, SB
<i>Myriopteris wootonii</i>	Wooton's lace fern	CRPR: 2B.3	SB
<i>Nama dichotomum</i> var. <i>dichotomum</i>	Forked purple mat	CRPR: 2B.3	SB
<i>Nama stenocarpum</i>	Mud nama	CRPR: 2B.2	IMP, LA, OR, RIV
<i>Navarretia ojaiensis</i>	Ojai navarretia	CRPR: 1B.1	LA, VEN
<i>Navarretia peninsularis</i>	Baja navarretia	CRPR: 1B.2	LA, SB, VEN
<i>Navarretia prostrata</i>	Prostrate vernal pool navarretia	CRPR: 1B.1	LA, OR, RIV, SB
<i>Navarretia setiloba</i>	Piute Mountains navarretia	CRPR: 1B.1	LA
<i>Nemacaulis denudata</i> var. <i>denudata</i>	Coast woolly-heads	CRPR: 1B.2	LA, OR
<i>Nemacaulis denudata</i> var. <i>gracilis</i>	Slender cottonheads	CRPR: 2B.2	IMP, RIV, SB
<i>Nemacladus secundiflorus</i> var. <i>robbinsii</i>	Robbins' nemacladus	CRPR: 1B.2	LA, VEN
<i>Nolina cismontana</i>	Chaparral nolina	CRPR: 1B.2	LA, OR, RIV, VEN
<i>Oenothera cavernae</i>	Cave evening-primrose	CRPR: 2B.1	SB
<i>Oenothera longissima</i>	Long-stem evening-primrose	CRPR: 2B.2	SB
<i>Opuntia basilaris</i> var. <i>brachyclada</i>	Short-joint beavertail	CRPR: 1B.2	LA, SB
<i>Opuntia wigginsii</i>	Wiggins' cholla	CRPR: 3.3	IMP, RIV, SB
<i>Opuntia xcurvispina</i>	Curved-spine beavertail	CRPR: 2B.2	SB
<i>Oreonana vestita</i>	Woolly mountain-parsley	CRPR: 1B.3	LA, SB
<i>Orobanche parishii</i> ssp. <i>brachyloba</i>	Short-lobed broomrape	CRPR: 4.2	LA, VEN
<i>Orobanche valida</i> ssp. <i>Valida</i>	Rock Creek broomrape	CRPR: 1B.2	LA, SB, VEN
<i>Oxytropis oreophila</i> var. <i>oreophila</i>	Rock-loving oxytrope	CRPR: 2B.3	LA, SB
<i>Packera bernardina</i>	San Bernardino ragwort	CRPR: 1B.2	LA, SB
<i>Palafoxia arida</i> var. <i>gigantea</i>	Giant spanish-needle	CRPR: 1B.3	IMP
<i>Panicum hirticaule</i> ssp. <i>hirticaule</i>	Roughstalk witch grass	CRPR: 2B.1	IMP, RIV, SB

**TABLE 3.4.2-5  
RARE AND LOCALLY IMPORTANT PLANTS REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Where Reported
<i>Parnassia cirrata</i> var. <i>cirrata</i>	San Bernardino grass-of-Parnassus	CRPR: 1B.3	LA, RIV, SB
<i>Pediomelum castoreum</i>	Beaver Dam breadroot	CRPR: 1B.2	SB
<i>Pellaea truncata</i>	Spiny cliff-brake	CRPR: 2B.3	SB
<i>Penstemon albomarginatus</i>	White-margined beardtongue	CRPR: 1B.1	SB
<i>Penstemon bicolor</i> ssp. <i>roseus</i>	Rosy two-toned beardtongue	CRPR: 1B.1	SB
<i>Penstemon calcareus</i>	Limestone beardtongue	CRPR: 1B.3	SB
<i>Penstemon californicus</i>	California beardtongue	CRPR: 1B.2	OR, RIV
<i>Penstemon fruticiformis</i> var. <i>amargosae</i>	Amargosa beardtongue	CRPR: 1B.3	SB
<i>Penstemon pseudospectabilis</i> ssp. <i>pseudospectabilis</i>	desert beardtongue	CRPR: 2B.2	IMP, RIV, SB
<i>Penstemon stephensii</i>	Stephens' beardtongue	CRPR: 1B.3	SB
<i>Penstemon thompsoniae</i>	Thompson's beardtongue	CRPR: 2B.3	SB
<i>Penstemon utahensis</i>	Utah beardtongue	CRPR: 2B.3	SB
<i>Pentachaeta aurea</i> ssp. <i>allenii</i>	Allen's pentachaeta	CRPR: 1B.1	OR
<i>Perideridia parishii</i> ssp. <i>parishii</i>	Parish's yampah	CRPR: 2B.2	SB
<i>Petalonyx thurberi</i> ssp. <i>gilmanii</i>	Death Valley sandpaper-plant	CRPR: 1B.3	SB
<i>Phacelia anelsonii</i>	Aven Nelson's phacelia	CRPR: 2B.3	SB
<i>Phacelia barnebyana</i>	Barneby's phacelia	CRPR: 2B.3	SB
<i>Phacelia coerulea</i>	Sky-blue phacelia	CRPR: 2B.3	SB
<i>Phacelia floribunda</i>	Many-flowered phacelia	CRPR: 1B.2	LA
<i>Phacelia keckii</i>	Santiago Peak phacelia	CRPR: 1B.3	OR, RIV
<i>Phacelia mustelina</i>	Death Valley round-leaved phacelia	CRPR: 1B.3	SB
<i>Phacelia parishii</i>	Parish's phacelia	CRPR: 1B.1	SB
<i>Phacelia perityloides</i> var. <i>jaegeri</i>	Jaeger's phacelia	CRPR: 1B.3	SB
<i>Phacelia pulchella</i> var. <i>gooddingii</i>	Goodding's phacelia	CRPR: 2B.3	SB
<i>Phacelia stellaris</i>	Brand's star phacelia	CRPR: 1B.1	LA, OR, RIV, SB
<i>Phaseolus filiformis</i>	Slender-stem bean	CRPR: 2B.1	RIV
<i>Phlox dolichantha</i>	Big Bear Valley phlox	CRPR: 1B.2	SB
<i>Pholisma sonorae</i>	Sand food	CRPR: 1B.2	IMP
<i>Pholistoma auritum</i> var. <i>arizonicum</i>	Arizona pholistoma	CRPR: 2B.3	IMP, SB
<i>Physalis lobata</i>	Lobed ground-cherry	CRPR: 2B.3	SB
<i>Physaria chambersii</i>	Chambers' physaria	CRPR: 2B.3	SB
<i>Pilostyles thurberi</i>	Thurber's pilostyles	CRPR: 4.3	IMP, RIV
<i>Plagiobothrys parishii</i>	Parish's popcornflower	CRPR: 1B.1	LA, SB
<i>Poliomintha incana</i>	Frosted mint	CRPR: 2A	SB
<i>Polygala acanthoclada</i>	Thorny milkwort	CRPR: 2B.3	IMP, RIV, SB

**TABLE 3.4.2-5  
RARE AND LOCALLY IMPORTANT PLANTS REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Where Reported
<i>Polygala intermontana</i>	Intermountain milkwort	CRPR: 2B.1	SB
<i>Potentilla multijuga</i>	Ballona cinquefoil	CRPR: 1A	LA
<i>Potentilla rimicola</i>	Cliff cinquefoil	CRPR: 2B.3	RIV
<i>Prunus eremophila</i>	Mojave Desert plum	CRPR: 1B.2	SB
<i>Pseudognaphalium leucocephalum</i>	White rabbit-tobacco	CRPR: 2B.2	LA, OR, RIV
<i>Pseudorontium cyathiferum</i>	Deep Canyon snapdragon	CRPR: 2B.3	IMP, RIV
<i>Psorothamnus fremontii</i> var. <i>attenuatus</i>	Narrow-leaved psorothamnus	CRPR: 2B.3	SB
<i>Puccinellia parishii</i>	Parish's alkali grass	CRPR: 1B.1	SB
<i>Pyrrocoma uniflora</i> var. <i>gossypina</i>	Bear Valley pyrrocoma	CRPR: 1B.2	SB
<i>Quercus dumosa</i>	Nuttall's scrub oak	CRPR: 1B.1	LA, OR, VEN
<i>Ribes divaricatum</i> var. <i>parishii</i>	Parish's gooseberry	CRPR: 1A	LA, SB
<i>Ribes viburnifolium</i>	Santa Catalina Island currant	CRPR: 1B.2	LA
<i>Robinia neomexicana</i>	New Mexico locust	CRPR: 2B.3	SB
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	CRPR: 1B.2	SB, OR, VEN
<i>Saltugilia latimeri</i>	Latimer's woodland-gilia	CRPR: 1B.2	RIV, SB
<i>Salvia greatae</i>	Orocopia sage	CRPR: 1B.3	IMP, RIV, SB
<i>Sanvitalia abertii</i>	Abert's sanvitalia	CRPR: 2B.2	SB
<i>Schoenus nigricans</i>	Black bog-rush	CRPR: 2B.2	SB
<i>Sclerocactus johnsonii</i>	Johnson's bee-hive cactus	CRPR: 2B.2	SB
<i>Scleropogon brevifolius</i>	Burro grass	CRPR: 2B.3	SB
<i>Scrophularia villosa</i>	Santa Catalina figwort	CRPR: 1B.2	LA
<i>Scutellaria bolanderi</i> ssp. <i>austromontana</i>	Southern mountains skullcap	CRPR: 1B.2	LA, RIV, SB
<i>Selaginella eremophila</i>	Desert spike-moss	CRPR: 2B.2	IMP, RIV
<i>Senecio aphanactis</i>	Chaparral ragwort	CRPR: 2B.2	LA, OR, RIV, VEN
<i>Senna covesii</i>	Cove's cassia	CRPR: 2B.2	IMP, RIV, SB
<i>Sibaropsis hammittii</i>	Hammitt's clay-cress	CRPR: 1B.2	RIV
<i>Sidalcea malviflora</i> ssp. <i>dolosa</i>	Bear Valley checkerbloom	CRPR: 1B.2	SB
<i>Sidalcea neomexicana</i>	Salt Spring checkerbloom	CRPR: 2B.2	LA, OR, RIV, SB, VEN
<i>Sidotheca emarginata</i>	White-margined oxytheca	CRPR: 1B.3	RIV
<i>Sisyrinchium longipes</i>	Timberland blue-eyed grass	CRPR: 2B.2	SB
<i>Solanum wallacei</i>	Wallace's nightshade	CRPR: 1B.1	LA
<i>Sphaeralcea rusbyi</i> var. <i>eremicola</i>	Rusby's desert-mallow	CRPR: 1B.2	RIV, SB
<i>Sphaerocarpos drewei</i>	Bottle liverwort	CRPR: 1B.1	RIV
<i>Sphenopholis obtusata</i>	Prairie wedge grass	CRPR: 2B.2	RIV, SB
<i>Stemodia durantifolia</i>	Purple stemodia	CRPR: 2B.1	RIV
<i>Stipa arida</i>	Mormon needle grass	CRPR: 2B.3	SB

**TABLE 3.4.2-5  
RARE AND LOCALLY IMPORTANT PLANTS REPORTED IN THE SCAG REGION**

Scientific Name	Common Name	Status	Counties Where Reported
<i>Stipa divaricata</i>	Small-flowered rice grass	CRPR: 2B.3	SB
<i>Streptanthus bernardinus</i>	Laguna Mountains jewelflower	CRPR: 4.3	RIV, SB
<i>Streptanthus campestris</i>	Southern jewelflower	CRPR: 1B.3	IMP, RIV, SB, VEN
<i>Stylocline masonii</i>	Mason's neststraw	CRPR: 1B.1	LA
<i>Stylocline sonorensis</i>	Mesquite neststraw	CRPR: 2A	RIV
<i>Suaeda esteroa</i>	Estuary seablite	CRPR: 1B.2	LA, OR, VEN
<i>Symphotrichum defoliatum</i>	San Bernardino aster	CRPR: 1B.2	IMP, LA, OR, RIV, SB
<i>Symphotrichum greatae</i>	Greata's aster	CRPR: 1B.3	LA, SB, VEN
<i>Tetracoccus dioicus</i>	Parry's tetracoccus	CRPR: 1B.2	RIV, OR
<i>Teucrium cubense</i> ssp. <i>depressum</i>	Dwarf germander	CRPR: 2B.2	IMP, RIV
<i>Teucrium glandulosum</i>	Desert germander	CRPR: 2B.3	SB
<i>Texosporium sancti-jacobi</i>	Woven-spored lichen	CRPR: 3	LA, RIV, VEN
<i>Thelypteris puberula</i> var. <i>sonorensis</i>	Sonoran maiden fern	CRPR: 2B.2	LA, RIV, SB
<i>Thysanocarpus rigidus</i>	Rigid fringedpod	CRPR: 1B.2	LA, RIV, SB
<i>Tortella alpicola</i>	Alpine crisp moss	CRPR: 2B.3	SB
<i>Tortula californica</i>	California screw moss	CRPR: 1B.2	LA, RIV, VEN
<i>Trichocoronis wrightii</i> var. <i>wrightii</i>	Wright's trichocoronis	CRPR: 2B.1	RIV
<i>Tripterocalyx micranthus</i>	Small-flowered sand-verbena	CRPR: 2B.3	SB
<i>Triteleia clementina</i>	San Clemente Island triteleia	CRPR: 1B.2	LA
<i>Viola pinetorum</i> var. <i>grisea</i>	Grey-leaved violet	CRPR: 1B.3	LA, SB, VEN
<i>Wislizenia refracta</i> ssp. <i>palmeri</i>	Palmer's jackass clover	CRPR: 2B.2	RIV
<i>Wislizenia refracta</i> ssp. <i>Refracta</i>	Jackass-clover	CRPR: 2B.2	RIV, SB
<i>Woodsia plummerae</i>	Plummer's woodsia	CRPR: 2B.3	SB
<i>Xylorhiza cognata</i>	Mecca-aster	CRPR: 1B.2	IMP, RIV
<i>Xylorhiza orcuttii</i>	Orcutt's woody-aster	CRPR: 1B.2	IMP

**NOTE:**

California Native Plant Society: California Rare Plant Rank (CRPR) 1A = Plants Presumed Extinct in California; CRPR: 1B = Plants Rare, Threatened, or Endangered in California and Elsewhere; 2 = Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere; 3 = Plants About Which We Need More Information; 4 = Plants of Limited Distribution. SB = San Bernardino County; LA = Los Angeles County; RIV = Riverside County; VEN = Ventura County; OR = Orange County; IMP = Imperial County.

**SOURCE:**

California Department of Fish and Wildlife. 2015. *Rarefind 5: A Database Application for the Use of the California Department of Fish and Game Natural Diversity Data Base*. Sacramento, CA.



## Riparian and State Sensitive Plant Communities

Of the almost 25 million acres across the six counties in the SCAG region, approximately 2.1 million acres are developed, including approximately 100,000 acres used for transportation facilities. As a whole, nearly 23 million acres are considered “open space” (**Figure 3.4.2-5, *Open Space in the SCAG Region***). Vacant lands account for more than 20 of the 25 million acres and include the region’s national forests, state parks, military installations, other public lands, and various private holdings. There are approximately 2.65 million acres of agricultural lands in the SCAG region. Approximately 14 million acres of land within the SCAG region are administered by the USFS and the BLM for multiple purposes, including open spaces. These lands remain in natural habitats ranging from highly disturbed non-native grasslands to native habitats. Of the almost 23 million acres of open space in the SCAG region, 321,40 acres are currently identified by the CNDDDB as containing State-sensitive plant communities, including 196,330 acres of riparian habitats. Riparian habitats in the SCAG region may fall into the jurisdiction of the CDFW and improvements within or in the vicinity of these habitats would require compliance with Section 1600 of the State Fish and Game Code in which a Streambed Alteration Agreement would need to be obtained prior to the alteration of a State jurisdictional area.

The Natural Heritage Division of CDFW identifies special-status natural communities. A search of the CNDDDB reported 45 special-status natural communities in the six-county SCAG region (**Table 3.4.2-6, *Riparian Habitat and State Sensitive Plant Communities Reported in the SCAG Region***; **Figure 3.4.2-6, *Riparian Habitat and State Sensitive Plant Communities Reported in the SCAG Region***). The Natural Heritage Division is currently in the process of classifying and mapping vegetation in California. Consequently, these CNDDDB records date back only as recently as 1993. It is important to note that the likelihood of additional state-sensitive plant communities and riparian habitat to exist within the six-county SCAG region is high. Individual projects within the SCAG region would be required to delineate State-sensitive and riparian plant communities on a project-by-project basis.

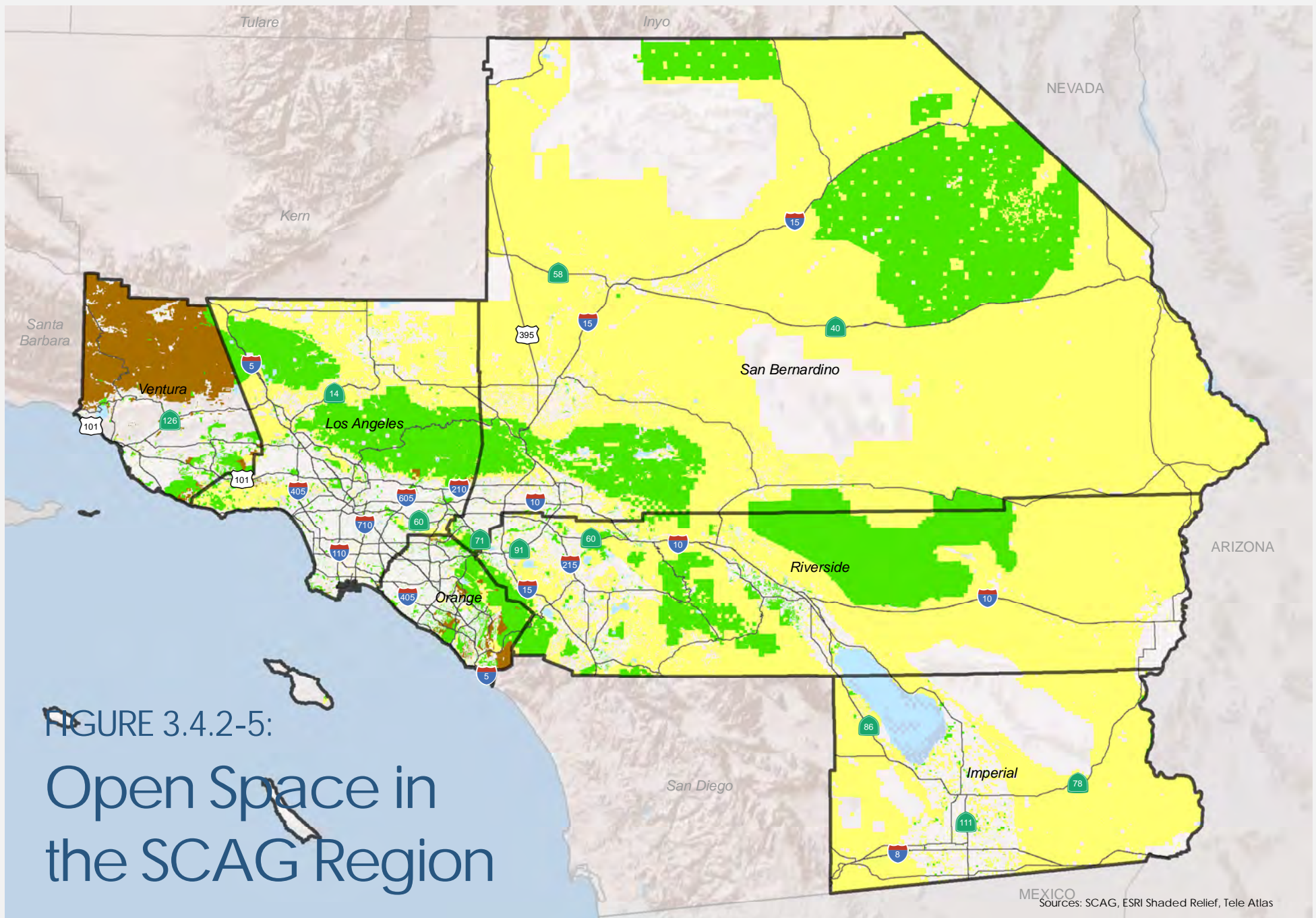
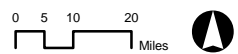


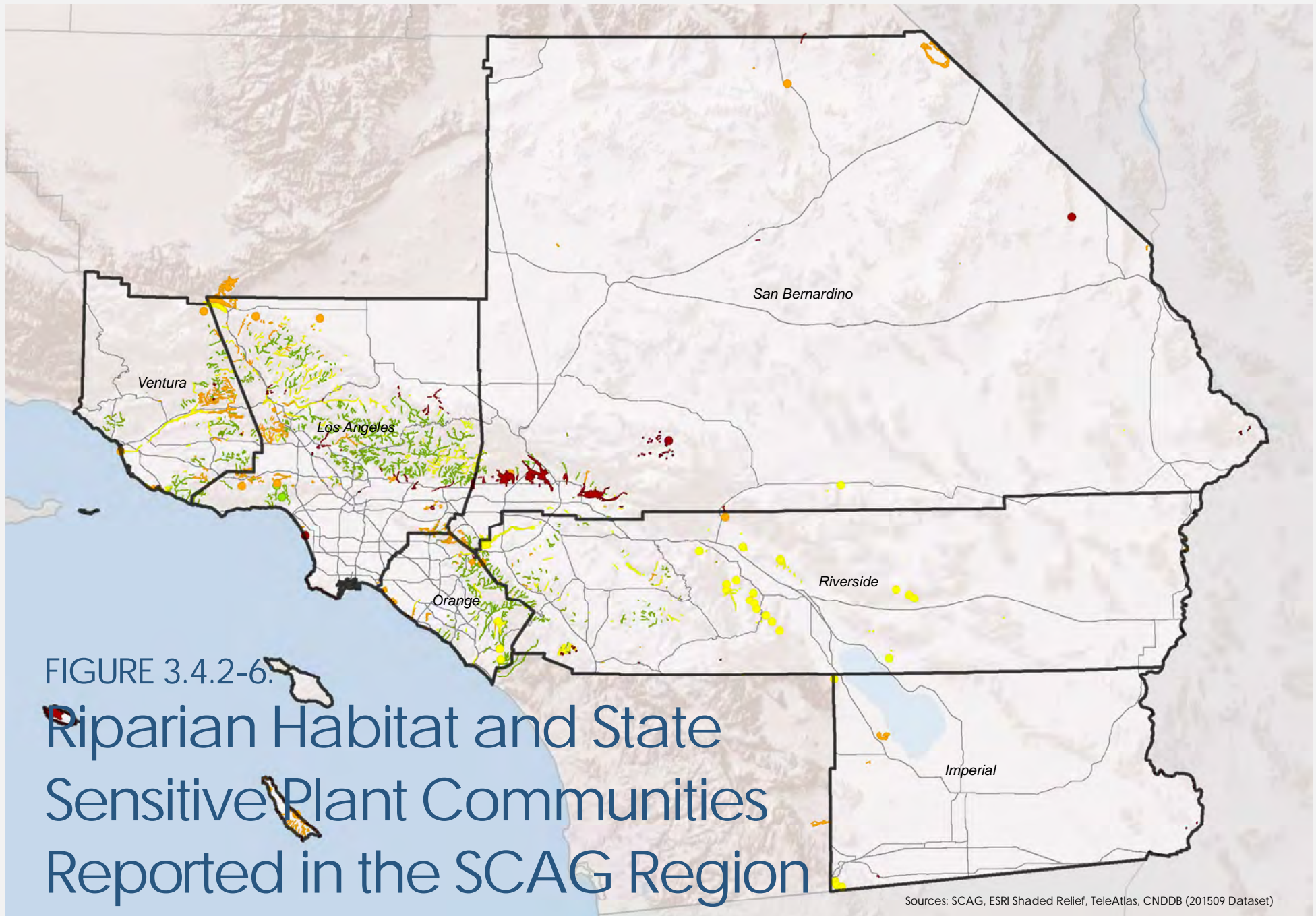
FIGURE 3.4.2-5:  
 Open Space in  
 the SCAG Region

Sources: SCAG, ESRI Shaded Relief, Tele Atlas

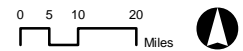
- Open Space and Recreation
- Water
- Undevelopable
- Vacant







- |                     |        |                   |
|---------------------|--------|-------------------|
| State Rank (Rarity) | Yellow | Vulnerable        |
| Red                 | Green  | Apparently Secure |
| Orange              |        | Imperiled         |



**TABLE 3.4.2-6  
RIPARIAN HABITAT AND STATE SENSITIVE PLANT COMMUNITIES REPORTED IN THE SCAG  
REGION**

<b>Community Name</b>	<b>State Sensitivity Rank</b>	<b>Counties Where Reported</b>	<b>Acres Reported in SCAG Region</b>
Active Desert Dunes	S2.2	IMP	2,230
Alkali Seep	S2.1	SB	<10
Amargosa River	SNR	SB	560
Arizonan Woodland	S1.2	SB	340
California Walnut Woodland	S2.1	LA, OR, SB, VEN,	16,730
Canyon Live Oak Ravine Forest	S3.3	LA, OR, SB, VEN, RIV	5,550
Cismontane Alkali Marsh	S1.1	VEN	30
Coastal and Valley Freshwater Marsh	S2.1	SB, RIV, VEN	550
Crucifixion Thorn Woodland	S2.1	IMP, SB	100
Desert Fan Palm Oasis Woodland	S3.2	IMP, SB, RIV	47,250
Island Cherry Forest	S2.1	LA	1,800
Island Ironwood Forest	S2.1	LA	2,260
Mainland Cherry Forest	S1.1	LA	70
Maritime Succulent Scrub	S1.1	LA, VEN	80
Mesquite Bosque	S2.1	IMP, SB, RIV	11,290
Mojave Mixed Steppe	S2.2	SB	20
Mojave Riparian Forest	S1.1	LA, SB	3,300
Mojave Yucca Scrub and Steppe	S3.2	SB	90
Open Engelmann Oak Woodland	S2.2	LA	870
Pebble Plains	S1.1	SB	4,020
Riversidian Alluvial Fan Sage Scrub	S1.1	LA, SB, OR, RIV	27,830
Sonoran Cottonwood Willow Riparian Forest	S1.1	IMP, RIV	1,760
Southern Coastal Bluff Scrub	S1.1	LA, VEN	1,040
Southern Coastal Salt Marsh	S2.1	LA, OR, VEN	4,660
Southern California Arroyo Chub/ Santa Ana Sucker Stream	SNR	LA, OR, SB, RIV	5,840
Southern California Coastal Lagoon	SNR	LA, VEN	20
Southern California Steelhead Stream	SNR	LA, VEN	3,020
Southern California Threespine Stickleback Stream	SNR	LA, SB, VEN	2,190
Southern Coast Live Oak Riparian Forest	S4	LA, OR, SB, RIV, VEN	22,990
Southern Cottonwood Willow Riparian Forest	S3.2	LA, SB, VEN, OR, RIV, IMP	19,230
Southern Dune Scrub	S1.1	LA, VEN, OR	9,640
Southern Foredunes	S2.1	LA, OR, VEN	1,380
Southern Interior Basalt Flow Vernal Pool	S1.2	RIV	620
Southern Interior Cypress Forest	S2.1	OR, RIV	2,980
Southern Mixed Riparian Forest	S2.1	LA, SB, OR, VEN, RIV	4,460

**TABLE 3.4.2-6  
RIPARIAN HABITAT AND STATE SENSITIVE PLANT COMMUNITIES REPORTED IN THE SCAG  
REGION**

Community Name	State Sensitivity Rank	Counties Where Reported	Acres Reported in SCAG Region
Southern Riparian Forest	S4	LA, SB, RIV, VEN	550
Southern Riparian Scrub	S3.2	LA, OR, SB, VEN, RIV	11,410
Southern Sycamore Alder Riparian Woodland	S4	LA, OR, SB, RIV, VEN	61,930
Southern Willow Scrub	S2.1	LA, OR, SB, VEN, RIV	5,700
Stabilized and Partially Stabilized Desert Dunes	S3.2	IMP	2,230
Transmontane Alkali Marsh	S2.1	IMP, SB	240
Valley Needlegrass Grassland	S3.1	LA, OR, VEN, RIV	16,990
Valley Oak Woodland	S2.1	LA, VEN	12,430
Walnut Forest	S1.1	LA, VEN	400
Wildflower Field	S2.2	LA	5,570

**NOTE:**

California Native Plant Society: California Rare Plant Rank (CRPR) 1A = Plants Presumed Extinct in California; CRPR: 1B = Plants Rare, Threatened, or Endangered in California and Elsewhere; 2 = Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere; 3 = Plants About Which We Need More Information; 4 = Plants of Limited Distribution; SNR = No State Rank. SB = San Bernardino County; LA = Los Angeles County; RIV = Riverside County; VEN = Ventura County; OR = Orange County; IMP = Imperial County.

**SOURCE:**

California Department of Fish and Wildlife. 2015. *Rarefind 5: A Database Application for the Use of the California Department of Fish and Game Natural Diversity Data Base*. Sacramento, CA.

## Federally Protected Wetlands and Waterways

Current National Wetlands Inventory<sup>21</sup> maps and USGS blue-line drainage data for the six-county SCAG region were reviewed for potential wetlands and waterways subject to protection under Section 404 of the Clean Water Act and coastal areas subject to Section 10 of the Rivers and Harbors Act. Wetlands and waterways potentially subject to the jurisdiction of the U.S. Army Corps of Engineers were determined to be present within each of the six counties in the SCAG region (**Table 3.4.2-7, Federally Protected Wetlands and Waterways Reported in the SCAG Region, Table 3.4.2.8, Blueline Drainages Reported in the SCAG Region, Table 3.4.2.9, Federally Protected Waterways under Rivers and Harbors Act Reported in the SCAG Region**). The analysis of Federally Protected Wetlands and Waterways in this section is based on aerial photography and satellite data, individual projects within the SCAG region would be required to complete a formal jurisdictional delineation pursuant to the Corps requirements.

<sup>21</sup> U.S. Fish and Wildlife Service. n.d. *National Wetlands Inventory Map*. Arlington, VA. Available at: <http://www.fws.gov/wetlands/Wetlands-Mapper.html>

**TABLE 3.2.4-7  
FEDERALLY PROTECTED WETLANDS AND WATERWAYS REPORTED IN THE SCAG REGION**

Wetland Type	National Wetlands Inventory (Acres)
<b>Imperial County</b>	
Freshwater Emergent Wetland	4,250
Freshwater Forested/Shrub Wetland	10,560
Freshwater Pond	1,720
Lake	198,250
Other	3,890
Riverine	12,270
<b>Total</b>	<b>230,940</b>
<b>Los Angeles County</b>	
Estuarine and Marine Deepwater	840
Estuarine and Marine Wetland	1,240
Freshwater Emergent Wetland	2,200
Freshwater Forested/Shrub Wetland	10,790
Freshwater Pond	4,820
Lake	18,870
Other	760
Riverine	21,010
<b>Total</b>	<b>60,550</b>
<b>Orange County</b>	
Estuarine and Marine Deepwater	560
Estuarine and Marine Wetland	1,650
Freshwater Emergent Wetland	970
Freshwater Forested/Shrub Wetland	4,110
Freshwater Pond	1,420
Lake	2,320
Other	<10
Riverine	5,450
<b>Total</b>	<b>16,490</b>
<b>Riverside County</b>	
Freshwater Emergent Wetland	7,690
Freshwater Forested/Shrub Wetland	13,850
Freshwater Pond	3,140
Lake	67,660
Other	640
Riverine	23,650
<b>Total</b>	<b>116,630</b>
<b>San Bernardino County</b>	
Freshwater Emergent Wetland	4,870
Freshwater Forested/Shrub Wetland	9,940
Freshwater Pond	5,920
Lake	238,780
Other	1,580
Riverine	99,200
<b>Total</b>	<b>360,290</b>

**TABLE 3.2.4-7  
FEDERALLY PROTECTED WETLANDS AND WATERWAYS REPORTED IN THE SCAG REGION**

Wetland Type	National Wetlands Inventory (Acres)
<b>Ventura County</b>	
Estuarine and Marine Deepwater	880
Estuarine and Marine Wetland	2,730
Freshwater Emergent Wetland	2,740
Freshwater Forested/Shrub Wetland	10,280
Freshwater Pond	940
Lake	4,130
Other	1,240
Riverine	8,850
<b>Total</b>	<b>31,780</b>

**SOURCE:**

U.S. Fish and Wildlife Service. Accessed 21 September 2015. *National Wetlands Inventory Map*. Arlington, VA. Available at: <http://www.fws.gov/wetlands/Wetlands-Mapper.html>

**TABLE 3.4.2-8  
BLUELINE DRAINAGES REPORTED IN THE SCAG REGION**

County	Miles of Blueline Drainages
Imperial County	9,010
Los Angeles County	7,180
Orange County	1,480
Riverside County	16,480
San Bernardino County	43,820
Ventura County	4,930
<b>Total</b>	<b>82,900</b>

**SOURCE:**

U.S. Geological Survey. Accessed 21 September 2015. *National Hydrology Dataset*. Available at: <http://nhd.usgs.gov/data.html>

**TABLE 3.4.2.9  
FEDERALLY PROTECTED WATERWAYS UNDER RIVERS AND HARBORS ACT REPORTED IN THE SCAG REGION**

Major River or Lake in the SCAG Region	Acres in the SCAG Region	Linear Miles in the SCAG Region
<b>Imperial County</b>		
Salton Sea	190,390	—
<b>Los Angeles County</b>		
Castaic Lake	2,230	—
Morris Reservoir	280	—
Puddingstone Reservoir	240	—
Pyramid Lake	1,180	—
San Gabriel Reservoir	520	—
Los Angeles River	—	50
San Gabriel River	—	60
Santa Clara River	—	40

**TABLE 3.4.2.9  
FEDERALLY PROTECTED WATERWAYS UNDER RIVERS AND HARBORS ACT REPORTED IN THE  
SCAG REGION**

Major River or Lake in the SCAG Region	Acres in the SCAG Region	Linear Miles in the SCAG Region
<b>Orange County</b>		
Irvine Lake	450	—
San Gabriel River	—	<10
Santa Ana River	—	30
<b>Riverside County</b>		
Diamond Valley Lake	4,060	—
Lake Elsinore	3,310	—
Lake Matthews	2,670	—
Perris Reservoir	1,920	—
Salton Sea	42,540	—
Skinner Reservoir	790	—
Vail Lake	260	—
Santa Ana River	—	20
Santa Margarita River	—	<10
<b>San Bernardino County</b>		
Big Bear Lake	2,690	—
Lake Arrowhead	740	—
Silverwood Lake	910	—
Santa Ana River	—	40
<b>Ventura County</b>		
Lake Casitas	2,450	—
Lake Piru	1,220	—
Santa Clara River	—	40
<b>TOTAL</b>	<b>258,840</b>	<b>294.00</b>

**SOURCE:**

U.S. Geological Survey. Accessed 21 September 2015. *National Hydrology Dataset*. Available at:  
<http://nhd.usgs.gov/data.html>

### Migratory Corridors and Nursery Sites

A desktop analysis, including aerial imagery habitat and land use assessments, and review of existing data indicative of the presence of wildlife movement corridors and nursery sites in the SCAG region was conducted. Uniform data classifying migratory corridors throughout Southern California does not exist. Instead, land use types that are often indicators of wildlife movement were assessed in each county within the SCAG region. The land use types used to characterize suitability for wildlife movement were: Open Space and Recreation, Undevelopable land, Vacant land (excluding the Urban-Vacant classification), and Water (**Table 3.4.2-10, Areas Used for Wildlife Movement within the SCAG Region**).



**TABLE 3.4.2-10  
AREAS USED FOR WILDLIFE MOVEMENT WITHIN THE SCAG REGION**

County	Acres of Natural Open Space Land*	Acres of Natural Open Space Water
Imperial	1,691,800	143,040
Los Angeles	1,552,590	14,760
Orange	221,690	4,550
Riverside	3,748,950	66,230
San Bernardino	10,391,540	15,610
Ventura	685,380	9,550
<b>Total</b>	<b>18,291,950</b>	<b>253,740</b>

**NOTE:**

\* Natural Open Space Land includes the following land use classifications: Open Space and Recreation, Undevelopable, and Vacant (excluding Urban-Vacant Category) derived from SCAG Land Use Data.

**SOURCE:**

SCAG land use data, 2015.

Barriers to wildlife movement exist throughout the SCAG region, including large areas of urban development and multilane freeways that cut off regional movement corridors for large migratory species such as mountain lions (*Puma concolor*). The development of wildlife crossings serve to alleviate these barriers and facilitate wildlife movement through the region. A notable example of such a wildlife crossing is the planned crossing through the State Route 101 Freeway at Liberty Canyon Road in Agoura Hills. The development of this crossing will help facilitate mountain lion and other terrestrial wildlife movement through the Santa Monica Mountains and reduce the risk of motor vehicle collisions with wildlife.

In addition, major rivers, creeks, and streams often serve as nursery sites for fish, amphibian, and invertebrate species. Furthermore, many birds species breed and are expected to nest within the SCAG region. The majority of occupied breeding bird nests are afforded protection under the MBTA, until juvenile birds have successfully fledged from their nests.

### Local Policies and Ordinances

The SCAG region spans six counties and 191 cities, each of which has a General Plan containing policies related to biological resources. The State of California General Plan Guidelines (2003) dictate that all cities and counties in the state of California are required to include conservation and open-space elements within their general plans. With the exception of Orange County, each county within the SCAG region has ordinances regulating the removal of native trees and plants (**Table 3.4.2-11, County Policies and Ordinances Relevant to the SCAG Region**).

**TABLE 3.4.2-11  
COUNTY POLICIES AND ORDINANCES RELEVANT TO THE SCAG REGION**

County	County Policies and Ordinances
Imperial <sup>1</sup>	Imperial County Code of Ordinances Chapter 12.48 Wild Flowers and Trees, Imperial County General Plan
Los Angeles <sup>2</sup>	Los Angeles County Oak Tree Ordinance, Los Angeles County General Plan
Orange <sup>3</sup>	No applicable county tree ordinances exist, Orange County General Plan
Riverside <sup>4</sup>	Riverside County Ordinance No. 559 Regulating the Removal of Trees, County of Riverside General Plan
San Bernardino <sup>5</sup>	San Bernardino County Development Code Chapter 88.01, Plant Protection and Management, County of San Bernardino General Plan
Ventura <sup>6</sup>	Ventura County Tree Protection Ordinance, Ventura County General Plan

**SOURCE:**

<sup>1</sup> Imperial County Planning and Development Services. 1993. *Imperial County General Plan: Chapter 9: Conservation and Open Space Element*. Pp. 47, 54. Available at: <http://www.icpds.com/CMS/Media/Conservation-and-Open-Space-Element.pdf>

<sup>2</sup> Los Angeles County Department of Regional Planning. January 2014. *Los Angeles County General Plan Public Review Draft: Chapter 9: Conservation and Natural Resources Element*. P. 146. Available at: [http://planning.lacounty.gov/assets/upl/project/gp\\_2035\\_Chapter9\\_2014.pdf](http://planning.lacounty.gov/assets/upl/project/gp_2035_Chapter9_2014.pdf)

<sup>3</sup> Orange County Land Use Planning and Subdivision Services. 2005. *Orange County General Plan 2005: Chapter 6: Resources Element*. P. VI-32. Available at: <http://ocplanning.net/civicax/filebank/blobdload.aspx?blobid=40235>

<sup>4</sup> Riverside County Planning Department. November 2012. *Riverside County General Plan 2025: Open Space and Conservation Element*. P. OS-40. Available at: [http://www.riversideca.gov/planning/gp2025program/GP/12\\_Open\\_Space\\_and\\_Conservation\\_Element.pdf](http://www.riversideca.gov/planning/gp2025program/GP/12_Open_Space_and_Conservation_Element.pdf)

<sup>5</sup> San Bernardino County Land Use Services. 2007. *San Bernardino County General Plan: Chapter 5: Conservation Element*. P. V-13. Available at: <http://www.sbcounty.gov/Uploads/lus/GeneralPlan/FINALGP.pdf>

<sup>6</sup> Ventura County Planning and Development Services. March 2015. *Ventura County General Plan: goals, policies and programs*. P. 16. Available at: <http://www.ventura.org/rma/planning/pdf/plans/Goals-Policies-and-Programs.pdf>

In addition to the county regulations for the six counties described above, General Plans and municipal codes of each of the 191 individual cities in the SCAG region include Conservation Elements that identify biological resources, including mature trees and locally important species that are afforded special consideration. Conservation elements of city plans and municipal codes may also include requirements for permits and mitigation in the planning process for sensitive biological resources such as listed, sensitive or candidate species, riparian or State-sensitive natural communities, wetlands or waters of the United States, and wildlife corridors and native nursery sites. Any project within the SCAG region would need to demonstrate compliance with conservation elements of applicable city and county general plans.

### **Habitat Conservation Plans and Natural Community Conservation Plans**

HCPs and NCCPs were evaluated to determine applicability of any adopted or proposed HCPs or NCCPs in the SCAG region. The boundaries of all HCPs/NCCPs were reviewed and compared to the county boundaries within the SCAG region to determine their relevance. It was determined that 13 HCPs/NCCPs are relevant to the SCAG region (**Table 3.4.2-12, HCPs and NCCPs Relevant to the SCAG Region**). Of the nearly 23 million acres of land classified as “open space” within the SCAG region, 20,560,501.94 acres are afforded long-term protection and conservation under the terms of an HCP or NCCP.

**TABLE 3.4.2-12  
HCPs AND NCCPs RELEVANT TO THE SCAG REGION**

HCP/NCCP	County					
	Imperial	Los Angeles	Orange	Riverside	San Bernardino	Ventura*
DRECP	X	X		X	X	
Lower Colorado River MSCP	X			X		
Imperial Irrigation District NCCP/HCP	X					
West Mojave HCP		X		X	X	
Palos Verdes Peninsula NCCP/HCP		X				
Orange County Transportation Authority NCCP/HCP			X			
Central Coastal Orange HCCP/HCP			X			
Orange County Southern Subregion HCP			X			
Western Riverside County MSHCP				X		
Coachella Valley MSHCP				X		
Town of Apple Valley MSHCP					X	
City of Colton HCP					X	

**NOTE:**

\* There are no HCP/NCCPs in Ventura County.

**SOURCE:**

California Department of Fish and Wildlife. 2015. *NCCP Plan Summaries*. Available from: <https://www.wildlife.ca.gov/Conservation/Planning/NCCP/Plans>

### 3.4.3 THRESHOLDS OF SIGNIFICANCE

Based on CEQA Guidelines Appendix G and as appropriate for the 2016 RTP/SCS, the Plan would have a significant impact related to biological resources 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan.

## Methodology

The impact assessment for biological resources focuses on the potentially significant direct effects of the Plan on biological resources within the SCAG region and the indirect and cumulative impacts on the historic range of habitats for special status species that may extend beyond the SCAG region. The methodology for determining the significance of these impacts compares a regional-level analysis of the future Plan conditions for biological resources in comparison to the baseline conditions.

To assess potential impacts to biological resources, geographic information systems (GIS) was used to identify where transportation projects that are included in the 2016 RTP/SCS such as major freeway, rail, and transit projects would be near biological resources in each county within the SCAG region and, therefore, have the potential to result in significant direct impact to special status species or their habitats; have the potential to result in conversion of state-designated sensitive habitats, including those habitats afforded protection pursuant to Sections 401 and 404 of the Federal Clean Water Act, and/or Section 1600 of the State Fish and Game Code; or have the potential to disrupt migratory corridors, nursery sites, or lands designated for long-term regional conservation of species. Specifically, using GIS spatial data, potential regional-level adverse effects were identified by adding a 500-foot buffer to major transportation projects<sup>22</sup> included in the 2016 RTP/SCS and overlaying project impacts within each county in the SCAG region upon the distribution and locations of known biological resources, including natural vegetation, wetlands and water resources, special status species and communities, and natural lands. The 500-foot buffer was added to account for any potential direct or indirect impacts that may occur to biological resources during construction and operation. The methodology for determining the significance of these impacts compares the future Plan conditions to baseline conditions.

The impact analysis identifies a direct intersection between major transportation projects included in the Plan and existing biological resources, and identifies the potential cumulative impact of the transportation projects and associated growth on habitat loss, degradation, and fragmentation. The analysis also includes a review of adopted habitat conservation plans to identify potential conflicts with their provisions.

The Plan describes a substantial effort to identify resource areas and encourage shifts in future development away from natural habitat areas. In doing so, the Plan includes land use strategies that aim to preserve natural habitats, minimize the potential for disturbance of biological resources, and support redirecting growth away from high value habitat areas to existing urbanized areas such as high quality transit areas (HQTAs). High value habitat areas as described in the Plan include lands that are important and unique habitats and have high per-acre habitat values, such as riparian habitat.

Implementation of transportation investments and land use strategies included in the 2016 RTP/SCS would affect biological resources. Expected significant impacts include disturbance and removal of natural vegetation that may be utilized by sensitive species, habitat fragmentation and the associated decrease in habitat quality, litter, trampling, light pollution and road noise in previously undisturbed natural areas, displacement of riparian and wetland habitat, siltation of streams and other water bodies

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<sup>22</sup> Major Transportation Projects include but are not limited to projects that involve ground disturbing activities and projects outside of existing rights-of-way such as projects that require new rights-of-way, adding traffic lanes, and grade separation.

during construction, and the loss of open space that provides habitat for native species. The anticipated increase in urban development, as a result of the land use strategies included in the Plan, would result in similar cumulative impacts when taken into consideration with other regional infrastructure and development improvements. SCAG provided local agencies with the opportunity to review the proposed growth forecast; therefore, the majority of infrastructure and development projects should be accounted for in the Plan.

Two basic types of impacts would potentially occur from transportation projects and land use strategies identified in the 2016 RTP/SCS and anticipated growth. These include short-term construction related impacts, and long-term or permanent displacement, as well as any potential off-site impacts from new facilities.

This PEIR analyzes these impacts on biological resources on a program level only. Additional project-level analysis may be required where temporary and permanent areas of impact differ from the assumptions used in the program-level analysis of impacts. For example, whenever a project is located near biological resources of concern or within habitats capable of supporting such resources, a biological resources evaluation would need to characterize the potential significant impacts for consistency with the program-level analysis contained in this PEIR and the ability to effectively utilize the mitigation measures recommended to avoid and minimize impacts to the maximum extent practicable.

### **3.4.4 IMPACT ANALYSIS**

The analysis of significant impacts to biological resources resulting from major transportation projects included in the 2016 RTP/SCS was based on major transportation projects located throughout the six counties and 38,000 square miles of the SCAG region. Transportation project types listed in the 2016 RTP/SCS range from projects with substantial ground disturbance such as rail projects, mixed flow lane projects, and grade separation projects, to operations and maintenance projects with minimal ground disturbance such as traffic signal synchronization or lane-restriping projects.

Individual transportation projects are preliminarily identified in the 2016 RTP/SCS; however, the impact analysis presented here analyzes potential environmental impacts to sensitive biological resources from a regional perspective and is programmatic in nature. As such, Lead Agencies for these individual projects will determine the level of environmental review required at the subsequent project-level evaluation of individual projects.

**IMPACT BIO-1. Potential to 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 California Department of Fish and Game or U.S. Fish and Wildlife Service.**

#### ***Significant Impact***

Transportation projects, and anticipated development projects resulting from the land use strategies, included in the 2016 RTP/SCS would result in substantial adverse effects to threatened and/or endangered species, fully protected and sensitive species, locally important species, or associated

critical habitat through conversion of natural habitats capable of sustaining these species to development, constituting a significant impact. However, regional land use strategies set forth in the Plan include conservation of natural habitats capable of sustaining listed and sensitive species to development by including land use strategies that focus new growth in HQTAs, existing suburban town centers, and more walkable, mixed-use communities and support redirecting growth away from high value habitat areas to existing urbanized areas. The level of impacts to threatened and/or endangered species, fully protected and sensitive species, locally important species, or associated critical habitat will vary on a project-by-project basis. For example, grade separation projects or rail projects located in areas containing natural, previously undisturbed vegetation are anticipated to have a greater impact on threatened and/or endangered species, fully protected and sensitive species, locally important species, or associated critical habitat than a traffic signal synchronization or lane-restriping project located in an urban environment.

Across the six counties and 191 cities within the SCAG region, there are records of and/or habitat for 66 federally or state-listed wildlife species and 76 federally or state-listed plant species, 208 sensitive wildlife species, 426 rare and locally important plant species, and nearly 6 million acres of designated critical habitat for 29 federally listed species. The development of transportation improvement projects, particularly projects involving large-scale ground disturbance during construction such as grade separation projects, mixed flow lane projects, and rail projects, within the SCAG region may result in significant impacts to these species and their habitats. For example, major transportation improvement projects in San Bernardino County are anticipated to cross known habitat for the federally threatened desert tortoise, and major transportation improvement projects in Los Angeles, Orange, Riverside, and Ventura counties are anticipated to cross critical habitat for the coastal California gnatcatcher (**Table 3.4.4-1, Critical Habitat for Listed Species Potentially Affected by 2016 RTP/SCS Major Transportation Projects**).

**TABLE 3.4.4-1  
CRITICAL HABITAT FOR LISTED SPECIES POTENTIALLY AFFECTED BY 2016 RTP/SCS MAJOR  
TRANSPORTATION PROJECTS**

Species	County					
	Imperial	Los Angeles	Orange	Riverside	San Bernardino	Ventura
	Acres of Critical Habitat within 500 Feet of Major Projects					
Arroyo toad	—	85	—	—	197	—
Braunton's milk-vetch	—	—	11	—	—	—
Coastal California gnatcatcher	—	822	525	2,538	—	81
Desert tortoise	—	—	—	—	2,942	—
Least Bell's vireo	—	29	—	211	5	—
Munz's onion	—	—	—	52	—	—
Peninsular bighorn sheep	—	—	—	57	—	—
Quino checkerspot butterfly	—	—	—	655	—	—
San Bernardino kangaroo rat	—	—	—	23	1,007	—
Santa Ana sucker	—	120	56	79	70	—
Southwestern willow flycatcher	—	82	—	—	126	37
Thread-leaved brodiaea	—	—	—	92	—	—

**SOURCE:**

United States Fish and Wildlife Service, Sacramento Fish and Wildlife Office. 2015.

Designated critical habitat contains known suitable habitat for federally listed species and typically is an indicator of suitable habitat for state- and/or non-listed sensitive species. The number of CNDDDB polygon records for listed species was intersected with major transportation projects included in the 2016 RTP/SCS GIS spatial data with a 500-foot buffer to determine the potential for impacts on listed plant and animal species. Of the 76 listed plant species with records in the SCAG region, 19 species have CNDDDB records that exist within 500 feet of major transportation projects included in the 2016 RTP/SCS (**Table 3.4.4-2, Records of Listed Plant Species Potentially Affected by 2016 RTP/SCS Projects**). Of the 66 listed wildlife species with records in the SCAG region, 30 species have CNDDDB records that exist within 500 feet of major transportation projects included in the 2016 RTP/SCS (**Table 3.4.4-3, Records of Listed Wildlife Species Potentially Affected by 2016 RTP/SCS Projects**). In addition to these listed species, impacts to rare, locally important, and sensitive plant and wildlife species would be expected to occur throughout the SCAG region where suitable habitat is present.

**TABLE 3.4.4-2  
RECORDS OF LISTED PLANT SPECIES POTENTIALLY AFFECTED BY 2016 RTP/SCS PROJECTS**

Species	County					
	Imperial	Los Angeles	Orange	Riverside	San Bernardino	Ventura
	Number of Records within 500 Feet of Major Projects					
Beach spectaclepod	—	1	—	—	—	—
Braunton's milk-vetch	—	3	1	—	—	—
California Orcutt grass	—	1	—	1	—	—
Coachella Valley milk-vetch	—	—	—	3	—	—
coastal dunes milk-vetch	—	2	—	—	—	—
Gambel's water cress	—	1	1	—	1	—
Marsh sandwort	—	1	—	1	1	—
Munz's onion	—	—	—	3	—	—
Nevin's barberry	—	2	—	—	—	—
Salt marsh bird's-beak	—	3	1	1	1	—
San Diego button-celery	—	1	—	—	—	—
San Fernando Valley spineflower	—	4	1	—	—	—
San Jacinto Valley crownscale	—	—	—	2	—	—
Santa Ana River woollystar	—	—	—	—	4	—
Slender-horned spineflower	—	4	—	3	5	—
Spreading navarretia	—	1	—	2	—	—
Thread-leaved brodiaea	—	—	—	2	—	—
Ventura Marsh milk-vetch	—	—	—	—	—	1
Verity's dudleya	—	—	—	—	—	1

**SOURCE:** California Department of Fish and Wildlife. 2015. *Rarefind 5: A Database Application for the Use of the California Department of Fish and Game Natural Diversity Data Base*. Sacramento, CA.

**TABLE 3.4.4-3  
RECORDS OF LISTED WILDLIFE SPECIES POTENTIALLY AFFECTED BY 2016 RTP/SCS PROJECTS**

Species	County					
	Imperial	Los Angeles	Orange	Riverside	San Bernardino	Ventura
	Number of Records within 500 Feet of Major Projects					
Arroyo toad	—	1	—	—	2	—
California red-legged frog	—	—	—	—	1	—
Bank swallow	—	3	1	—	—	—
Belding's savannah sparrow	—	—	1	—	—	—
Casey's June beetle	—	—	—	3	—	—
Coachella Valley fringe-toed lizard	—	—	—	5	—	—
Coastal California gnatcatcher	—	8	23	8	2	—
Desert tortoise	—	—	—	—	1	—
Delhi Sands flower-loving fly	—	—	—	9	13	—
Flat-tailed horned lizard	1	—	—	3	—	—
Green turtle	—	1	—	—	—	—
Least Bell's vireo	—	10	9	17	5	3
Mohave ground squirrel	—	5	—	—	8	—
Mohave tui chub	—	—	—	—	2	—
Palos Verdes blue butterfly	—	1	—	—	—	—
Quino checkerspot butterfly	—	—	—	2	—	—
Riverside fairy shrimp	—	—	2	—	—	—
San Bernardino kangaroo rat	—	1	—	—	10	—
Santa Ana sucker	—	2	—	—	—	1
Southern mountain yellow-legged frog	—	1	—	—	—	—
Southern rubber boa	—	—	—	—	17	—
Southwestern willow flycatcher	—	2	—	—	—	—
Steelhead - southern California DPS	—	—	—	—	—	1
Stephens' kangaroo rat	—	—	—	26	—	—
Swainson's hawk	—	6	1	2	5	—
Tidewater goby	—	—	1	—	—	—
Townsend's big-eared bat	—	1	—	—	1	—
Unarmored threespine stickleback	—	4	—	—	—	—
Western snowy plover	—	—	2	—	—	1
Western yellow-billed cuckoo	—	5	2	3	1	1

**SOURCE:** California Department of Fish and Wildlife. 2015. *Rarefind 5: A Database Application for the Use of the California Department of Fish and Game Natural Diversity Data Base*. Sacramento, CA.

Direct impacts would occur during project construction and would include direct loss of sensitive plant and/or wildlife species resulting from injury, death, or disturbance of these species. Additionally, direct impacts may occur through the direct habitat loss and fragmentation during construction of the transportation projects, introduction of non-native plants, and introduction of lighting, dust, and noise during construction and operation. Further, indirect impacts resulting from the development of transportation projects included in the 2016 RTP/SCS would include the development of associated manufacturing and institutional infrastructure within surrounding areas that may impact special-status plants and wildlife through disturbance and removal of vegetation as well as increased light, dust, and noise during and after development. Additionally, indirect impacts could occur as a result of



transportation project construction if suitable habitat was encroached upon to the extent that it could no longer support sensitive species. Indirect impacts may also include edge effects resulting from habitat fragmentation which can alter habitat structure and composition as well as predator-prey dynamics.

This analysis of impacts of transportation projects included in the 2016 RTP/SCS to sensitive plant and wildlife species and their habitats and designated critical habitat is at the programmatic level, and conservatively assumes that all species with critical habitat and/or CNDDDB records in a given area are present in that area. The level of impact of subsequent projects would be subject to verification at the project-level of environmental review pursuant to CEQA. Transportation improvement projects within the SCAG region would be subject to the provisions of the Federal and State Endangered Species Acts, as well as Sections 1900–1913, 3511, 4150, 4700, 5050, 5515 of the State Fish and Game Code and Sections 80071–80075 of the State Food and Agriculture Code.

Impacts to threatened and/or endangered species, fully protected and sensitive species, locally important species, or associated critical habitat resulting from transportation improvement projects included in the 2016 RTP/SCS would be significant, requiring the consideration of mitigation measures.

**IMPACT BIO-2. Potential to have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations; or by the California Department of Fish and Game or US Fish and Wildlife Service.**

***Significant Impact***

Transportation projects, and anticipated development projects resulting from the land use strategies, included in the 2016 RTP/SCS would result in the conversion of sensitive plant communities and riparian habitats to development, constituting a significant impact. However, implementation of regional land use strategies included in the Plan seek to minimize the conversion of natural landscapes that may contain sensitive plant communities or riparian habitats by encouraging land use strategies that focus new growth in HQTAs, existing suburban town centers, and more walkable, mixed-use communities. The Plan includes land use strategies which seek to preserve natural habitats and support redirecting growth away from high value habitat areas to existing urbanized areas. Some cities and county transportation commissions have taken steps toward planning comprehensively for conserving natural lands and farmlands, while also meeting demands for growth. Proposed natural lands conservation strategies described in the Plan are built upon the conservation framework and complements an infill-based approach.

The level of impacts to riparian habitats and sensitive natural communities as a result of transportation projects and regional land use strategies included in the 2016 RTP/SCS will differ on a project-by-project basis. For example, transportation projects that have the potential to cross waterways or require conversion of natural open space to infrastructure for transportation projects, such as High Speed Rail projects or other new highway segment projects in open space areas, or have the potential to convert state-designated habitats including riparian habitats would have the potential to have significant impacts on sensitive plant communities and riparian habitats. Whereas transportation projects that are contained within the alignments of existing transportation corridors, such as bike lane projects and

traffic demand management measures would not be expected to have significant impacts on sensitive plant communities and riparian habitats.

Of the nearly 23 million acres of open space in the SCAG region, 321,450 acres are currently identified by the CNDDDB as containing state-sensitive plant communities, including 196,330 acres of riparian habitats (**Table 3.4.2-6**). Riparian habitats in the SCAG region may fall under the jurisdiction of the CDFW. It is important to note that the likelihood of additional state-sensitive plant communities and riparian habitat to exist within the six-county SCAG region is high, as CNDDDB community records are only as recent as 1993. There are more than 18 million acres of natural open space landscapes and more than 250,000 acres of water features in the SCAG region that may contain sensitive or riparian plant communities (**Table 3.4.2-10**). The development of transportation projects, particularly projects involving large-scale ground disturbance during construction of transportation projects such as grade separation projects, mixed flow lane projects, and rail projects, within the SCAG region may result in significant impacts to these riparian habitats and sensitive plant communities.

Transportation projects included in the 2016 RTP/SCS may result in the conversion of natural landscapes that may contain sensitive plant communities or riparian habitats. Implementation of land use strategies included in the Plan seek to minimize the conversion of natural landscapes that may contain sensitive plant communities or riparian habitats by encouraging growth in existing urbanized areas, away from high value habitat areas. Of the 124,940 acres that may be converted within 500 feet of 2016 RTP/SCS transportation projects in the SCAG region, 45,170 (36 percent) are classified as natural open space and water areas (**Table 3.4.2-10**). Natural open space areas have the potential to contain sensitive plant communities and riparian habitats, and transportation projects constructed in these areas would require individual field analysis at the project-level to determine the level of impacts. Impacts to CNDDDB documented sensitive plant communities and riparian habitats within 500 feet of major transportation projects included in the 2016 RTP/SCS would occur within each county in the SCAG region except Imperial County (**Table 3.4.4-4, *CNDDDB Records of Sensitive and Riparian Habitats Potentially Affected by 2016 RTP/SCS Major Transportation Projects***). It is anticipated that impacts to sensitive and riparian habitats would occur in areas beyond those identified by the CNDDDB. Of the more than 80,000 linear miles of blueline features in the SCAG region, 211 miles have the potential to be adversely affected within 500 feet of major transportation projects included in the 2016 RTP/SCS (**Table 3.4.4-5, *Blueline Streams and Rivers Potentially Affected by the 2016 RTP/SCS Major Transportation Projects***). These blueline features have the potential to contain riparian habitat.

**TABLE 3.4.4-4  
CNDDDB RECORDS OF SENSITIVE AND RIPARIAN HABITATS POTENTIALLY AFFECTED  
BY 2016 RTP/SCS MAJOR TRANSPORTATION PROJECTS**

Habitat Type	County					
	Imperial	Los Angeles	Orange	Riverside	San Bernardino	Ventura
	Acres of Sensitive or Riparian Habitat within 500 Feet of Major Projects					
California Walnut Woodland	—	77	—	—	—	—
Open Engelmann Oak Woodland	—	148	—	—	—	—
Riversidian Alluvial Fan Sage Scrub	—	144	—	—	439	—
Southern Coast Live Oak Riparian Forest	—	60	36	—	—	—
Southern Coastal Salt Marsh	—	—	12	—	—	—
Southern Cottonwood Willow Riparian Forest	—	105	645	103	—	—
Southern Riparian Forest	—	—	—	—	18	—
Southern Riparian Scrub	—	2245	—	—	—	32
Southern Sycamore Alder Riparian Woodland	—	174	234	116	—	19
Southern Willow Scrub	—	4	—	—	—	37
Valley Oak Woodland	—	—	—	—	—	25

**SOURCE:**

California Department of Fish and Wildlife. 2015. *Rarefind 5: A Database Application for the Use of the California Department of Fish and Game Natural Diversity Data Base*. Sacramento, CA.

**TABLE 3.4.4-5  
BLUELINE STREAMS AND RIVERS POTENTIALLY AFFECTED BY 2016 RTP/SCS MAJOR  
TRANSPORTATION PROJECTS**

County	Miles of Blueline Streams/Rivers within 500 Feet of Major Transportation Projects
Imperial County	<1
Los Angeles County	95
Orange County	39
Riverside County	37
San Bernardino County	31
Ventura County	9
<b>Total</b>	<b>211</b>

**SOURCE:**

U.S. Geological Survey. Accessed 21 September 2015. *National Hydrology Dataset*. Available at: <http://nhd.usgs.gov/data.html>

Impacts associated with the conversion of sensitive and riparian habitats would include direct loss and fragmentation of sensitive communities and riparian habitats as new transportation projects are developed, and the introduction of non-native plants that would degrade existing communities. Further, indirect impacts resulting from the development of transportation projects included in the 2016 RTP/SCS would include development of associated manufacturing and institutional infrastructure within surrounding areas which may impact sensitive plant communities and riparian habitats through the disturbance and removal of vegetation. Approximately 64 percent of the potential impacts acres within

500 feet of the 2016 RTP/SCS major transportation projects would be expected to occur outside of natural open space and water areas where there would be no anticipated impacts to state-designated sensitive habitats.<sup>23</sup>

This analysis of impacts of transportation projects included in the 2016 RTP/SCS to sensitive plant communities and riparian habitats is at the programmatic level, and conservatively assumes that all natural open space areas have the potential to contain sensitive plant communities and all waterways have the potential to contain riparian habitat. The level of impact of subsequent projects would be subject to verification at the project-level of environmental review pursuant to CEQA. Transportation projects within the SCAG region would be subject to the provisions of Section 1600 of the State Fish and Game Code in which a Streambed Alteration Agreement would need to be obtained prior to the alteration of a State jurisdictional area.

The transportation projects included in the 2016 RTP/SCS would be expected to result in significant impacts to state-designated riparian and other sensitive plant communities, including areas subject to Section 1600 of the State Fish and Game Code, requiring the consideration of mitigation measures.

**IMPACT BIO-3. Potential to have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.**

***Significant Impact***

Transportation projects, and anticipated development projects resulting from the land use strategies, included in the 2016 RTP/SCS would result in conversion of federally protected wetland habitats to development and diversion of waters of the United States as defined by Section 404 of the Clean Water Act, constituting a significant impact. Implementation of regional land use strategies included in the 2016 RTP/SCS seek to minimize impacts to federally protected wetlands and Waters of the United States as defined by Section 404 of the Clean Water Act through conversion of wetland habitats to development and diversion of waters of the United States, because the strategies focus new growth in HQTAs, existing suburban town centers, and more walkable, mixed-use communities and support redirecting growth away from high value habitat areas. Despite these land use planning strategies, impacts would be expected to occur where dredge or fill would be required within wetlands or other waters of the United States, particularly where transportation projects need to cross drainages, where a clearspan to avoid impacts is determined to be infeasible. There is potential for comparable significant impacts in areas subject to Section 10 of the Rivers and Harbors Act. The level of impacts to federally protected wetlands and Waters of the United States would vary on a project-by-project basis. For example, grade separation projects or rail projects located in areas containing coastal habitats or close to the terminal locations of major rivers or stream systems, where the width of the stream is often largest would be anticipated to have a greater impact on federally protected wetlands and Waters of the United States than those located in the upstream portion of the watershed, near the headwaters where drainages are typically more numerous and narrower.

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<sup>23</sup> SCAG Land Use Data, 2015.

More than 800,000 acres of federally protected wetlands and waterways potentially subject to the jurisdiction of the USACOE were identified by the National Wetlands Inventory to be present in the SCAG region. In addition, the SCAG region includes more than 80,000 linear miles of USGS blueline drainages that may contain waters of the United States. Potential impacts to wetlands and waters of the United States within 500 feet of major transportation projects included in the Plan exist within all six counties in the SCAG region, ranging from 10 acres potentially affected in Imperial County to 1,900 acres potentially affected in Los Angeles County (**Table 3.4.4-6, *Federally Protected Wetlands and Waterways Potentially Affected by the 2016 RTP/SCS Major Transportation Projects***). Of the more than 80,000 linear miles of blueline features in the SCAG region, 211 miles have the potential to be affected within 500 feet of major transportation projects included in the 2016 RTP/SCS (**Table 3.4.4-5**). These projects may impact wetlands and waters of the United States protected by Section 404 of the Federal Clean Water Act.

**TABLE 3.4.4-6  
FEDERALLY PROTECTED WETLANDS AND WATERWAYS POTENTIALLY AFFECTED BY THE 2016  
RTP/SCS MAJOR TRANSPORTATION PROJECTS**

Wetland Type	NWI Acres Potentially Affected within 500 Feet of Major Transportation Projects
<b>Imperial County</b>	
Freshwater Pond	2
Riverine	9
<b>Total</b>	<b>10</b>
<b>Los Angeles County</b>	
Estuarine and Marine Deepwater	119
Freshwater Emergent Wetland	79
Freshwater Forested/Shrub Wetland	249
Freshwater Pond	102
Lake	97
Other	58
Riverine	1,198
<b>Total</b>	<b>1,900</b>
<b>Orange County</b>	
Estuarine and Marine Deepwater	2.3
Estuarine and Marine Wetland	0.4
Freshwater Emergent Wetland	26
Freshwater Forested/Shrub Wetland	101
Freshwater Pond	58
Lake	65
Riverine	202
<b>Total</b>	<b>455</b>
<b>Riverside County</b>	
Freshwater Emergent Wetland	20
Freshwater Forested/Shrub Wetland	130
Freshwater Pond	40
Lake	13
Other	2
Riverine	128
<b>Total</b>	<b>333</b>

**TABLE 3.4.4-6  
FEDERALLY PROTECTED WETLANDS AND WATERWAYS POTENTIALLY AFFECTED BY THE 2016  
RTP/SCS MAJOR TRANSPORTATION PROJECTS**

Wetland Type	NWI Acres Potentially Affected within 500 Feet of Major Transportation Projects
<b>San Bernardino County</b>	
Freshwater Emergent Wetland	6
Freshwater Forested/Shrub Wetland	8
Freshwater Pond	70
Lake	9
Other	<1
Riverine	147
<b>Total</b>	<b>240</b>
<b>Ventura County</b>	
Estuarine and Marine Deepwater	<1
Estuarine and Marine Wetland	12
Freshwater Emergent Wetland	20
Freshwater Forested/Shrub Wetland	48
Freshwater Pond	2
Riverine	45
<b>Total</b>	<b>128</b>

**SOURCE:**

U.S. Fish and Wildlife Service. Accessed 21 September 2015. *National Wetlands Inventory Map*. Arlington, VA. Available at: <http://www.fws.gov/wetlands/Wetlands-Mapper.html>

Additionally, major transportation projects included in the 2016 RTP/SCS are anticipated to intersect nearly 32 linear miles of navigable waterways within 500 feet projects across SCAG region that are protected by Section 10 of the Rivers and Harbors Appropriation Act (**Table 3.4.4-7, *Federally Protected Waterways Under Rivers and Harbors Act Potentially Affected by the 2016 RTP/SCS Major Transportation Projects***). The development of transportation projects, particularly projects involving large-scale ground disturbance during construction such as grade separation projects, mixed flow lane projects, and rail projects, within the SCAG region may result in significant impacts to these federally protected wetlands and Waters of the United States.

**TABLE 3.4.4-7  
FEDERALLY PROTECTED WATERWAYS UNDER RIVERS AND HARBORS ACT POTENTIALLY  
AFFECTED BY THE 2016 RTP/SCS MAJOR TRANSPORTATION PROJECTS**

<b>Major River in the SCAG Region</b>	<b>Linear Miles Potentially Affected within 500 Feet of Major Transportation Projects</b>
<b>Los Angeles County</b>	
Los Angeles River	17
San Gabriel River	6
Santa Clara River	2
<b>Orange County</b>	
Santa Ana River	4
<b>Riverside County</b>	
Santa Ana River	1
<b>San Bernardino County</b>	
Santa Ana River	1
<b>Ventura County</b>	
Santa Clara River	<1
<b>TOTAL</b>	<b>32</b>

**SOURCE:**

U.S. Geological Survey. Accessed 21 September 2015. *National Hydrology Dataset*. Available at: <http://nhd.usgs.gov/data.html>

These impacts would include disruption of streams and wetlands as new transportation projects are developed, and dredge and fill activities associated with transportation development. Further, indirect impacts resulting from the development of transportation projects included in the 2016 RTP/SCS would include the development of associated manufacturing and institutional infrastructure within surrounding areas which may impact federally protected wetlands through dredge and fill activities. Transportation projects within the SCAG region would be subject to the provisions of Section 404 of the Federal Clean Water Act. Dredge or fill in Waters of the United States is subject to the regulatory authority of the USACOE pursuant to Section 404 of the Federal Clean Water Act.

Transportation projects included in the 2016 RTP/SCS would result in significant impacts to federally protected wetlands and Waters of the United States, requiring the consideration of mitigation measures.

**IMPACT BIO-4: Potential to 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.**

***Significant Impact***

Transportation projects, and anticipated development projects resulting from the land use strategies, included in the 2016 RTP/SCS would interfere substantially with the movement of 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 directly as a result of habitat conversion to accommodate

transportation projects or indirectly through interruption of movement or migratory corridors caused by construction and operation of infrastructure for transportation projects and appurtenant structures, constituting a significant impact. Implementation of regional land use strategies included in the 2016 RTP/SCS seek to minimize impacts to biological resources as a result of interfering substantially with the movement of any native resident or migratory fish or wildlife or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites because the strategies aim to avoid growth in natural habitat areas and support redirecting growth from high value habitat areas to existing urbanized areas. The level of impacts to native wildlife movement corridors and nursery sites from transportation projects and land use strategies included in the 2016 RTP/SCS will vary on a project-by-project basis. For example, grade separation projects or rail projects located in areas containing large areas of intact natural habitats or several trees and/or other nesting substrates would be anticipated to have a greater impact on wildlife movement corridors and nursery sites than a traffic signal synchronization or lane-restriping project located in an urban environment.

Land characteristics that are often indicators of wildlife movement are present across the SCAG region. More than 18 million acres of natural open space land and 250,000 acres of natural open space water features throughout the SCAG region can be characterized having the potential to be suitable for, or aid in, wildlife movement (**Table 3.4.2-10**). These locations also may serve as nursery sites for fish, amphibian, and invertebrate species. Furthermore, many birds species breed and are expected to nest within the entire SCAG region, including urban areas. There are potential impacts for 44,059 acres of natural open space land and 760 acres of natural open space water areas that are within 500 feet of major transportation projects included in the 2016 RTP/SCS (**Table 3.4.4-8, Areas Used for Wildlife Movement Potentially Affected by the 2016 RTP/SCS Major Transportation Projects by County**). The development of transportation improvement projects, particularly projects involving large-scale ground disturbance during construction such as grade separation projects, mixed flow lane projects, and rail projects, within the SCAG region may result in significant impacts to the wildlife movement corridors and native wildlife nursery sites.

**TABLE 3.4.4-8  
AREAS USED FOR WILDLIFE MOVEMENT POTENTIALLY AFFECTED  
BY 2016 RTP/SCS MAJOR TRANSPORTATION PROJECTS BY COUNTY**

<b>County</b>	<b>Acres of Natural Open Space Land Potentially Affected within 500 feet of Major Transportation Projects</b>	<b>Acres of Natural Open Space Water Potentially Affected within 500 feet of Major Transportation Projects</b>
Imperial	365	—
Los Angeles	22,365	436
Orange	2,746	213
Riverside	6,210	110
San Bernardino	12,153	—
Ventura	576	<1
<b>Total</b>	<b>44,059</b>	<b>760</b>

**SOURCE:**

SCAG land use data, 2015.

These impacts would include direct habitat removal and fragmentation that would disrupt corridor functionality as new transportation projects are developed, and introduction of lighting and noise during construction and operation that may interrupt wildlife movement and disturb nursery sites. The construction of transportation projects across an existing corridor may introduce new barriers to



wildlife movement or increase the impact of barriers to wildlife movement by widening the barriers and thus narrowing the corridor. The linear nature of transportation projects increases the potential extent and significance of this effect. Additionally, an increase in wildlife-roadway interactions as a result of the development of new transportation projects may increase wildlife injury and fatalities. Indirect impacts to migratory corridors and nursery sites would occur when the functionality of a corridor is degraded after the transportation project construction. The development of transportation projects through migratory corridors and/or the construction on existing transportation facilities that serve as barriers through wildlife corridors would result in an increase in human disturbances locally including an increase in traffic, noise, and lighting. Further, indirect impacts resulting from the development of transportation projects and land use strategies included in the 2016 RTP/SCS would include the development of associated manufacturing and institutional infrastructure within surrounding areas which may impact wildlife corridors and nursery sites through disturbance and removal of vegetation as well as increased light and noise during and after developments.

The conversion of existing native nursery habitat and potential wildlife movement areas resulting from transportation projects included in the 2016 RTP/SCS would result in a significant impact, requiring the consideration of mitigation measures.

### **IMPACT BIO-5: Potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.**

#### ***Significant Impact***

Transportation projects, and anticipated development projects resulting from the land use strategies, included in the 2016 RTP/SCS would have a potential to result in conflicts with local policies or ordinances protecting biological resources because of new transportation project development that may occur in undeveloped locations, including open spaces that may be protected under city or county general plans constituting a significant impact. In addition, conflicts may arise when transportation projects included in the 2016 RTP/SCS involve the disturbance or removal of trees or other vegetation that may be protected under city or county ordinances. Implementation of transportation projects listed in the 2016 RTP/SCS throughout the SCAG region has the potential to conflict with local policies protecting biological resources that are relevant to the 2016 RTP/SCS.

The land use strategies in the 2016 RTP/SCS are intended to focus new growth in existing urban areas such as the HQTAs and existing suburban town centers. This type of more compact development tends to consume less land and, therefore, result in less habitat loss and less conflict with local policies or ordinances protecting biological resources. Nonetheless, impacts might be expected to occur because many natural land areas near the edge of existing urbanized areas might be vulnerable to development pressure, and transportation projects that are aimed to improve accessibility might result in expansion of existing urbanized areas. Hence, land use strategies included in the 2016 RTP/SCS would have a potential to result in conflicts with local policies or ordinances protecting biological resources.

The SCAG region spans six counties and 191 cities, each of which has a general plan that includes a conservation and open space element containing policies related to biological resources. With the exception of Orange County, each county within the SCAG region has ordinances regulating the removal of native trees and plants. Impacts within 500 feet of major transportation projects included in the 2016 RTP/SCS occur in unincorporated areas of all six counties that would be subject to the jurisdiction of the

individual county general plans and ordinances (**Table 3.4.4-9, Unincorporated Areas Subject to County General Plans Potentially Affected by the 2016 RTP/SCS Major Transportation Projects**). Any land use conversion from open space to developed space or removal of protected trees or vegetation in these areas resulting from major transportation projects included in the 2016 RTP/SCS would have the potential to conflict with local plans and ordinances. Outside of the unincorporated county boundaries, applicable policies to protect biological resources articulated in general plans for the 191 cities would apply. Many of the 191 city general plans in the SCAG region have additional provisions for protection of mature native and landscape trees and requirements for revegetation of landscaped areas using native plants. Transportation projects included in the 2016 RTP/SCS are anticipated to occur throughout the SCAG region, and each project would be subject to, and have the potential to conflict with, the policies and ordinances applicable to the local government with jurisdiction over the project location. Major transportation projects included in the 2016 RTP/SCS would occur within, and may result in impacts to, the Angeles National Forest and the San Bernardino National Forest and may conflict with the provisions of the Angeles Forest Plan and the San Bernardino National Forest Land Management Plan, respectively.

**TABLE 3.4.4-9  
UNINCORPORATED AREAS SUBJECT TO COUNTY GENERAL PLANS POTENTIALLY AFFECTED  
BY THE 2016 RTP/SCS MAJOR TRANSPORTATION PROJECTS**

County	Acres within Unincorporated County Boundaries Subject to County General Plans, Policies, and Ordinances
Imperial	1,740
Los Angeles	24,922
Orange	1,873
Riverside	7,642
San Bernardino	8,842
Ventura	352
<b>Total</b>	<b>45,372</b>

**SOURCE:**

Division of Research, Innovation and System Information (DRISI) of California Department of Transportation (Caltrans); Tax Area Services Section (TASS) of the State of California Board of Equalization. Accessed 16 November 2015. Available from: <http://www.dot.ca.gov/hq/tsip/gis/datalibrary/>

The level of impacts related to conflicts with local policies and ordinances protecting biological resources will vary on a project-by-project basis. For example, grade separation projects or rail projects located in areas with a high density of native trees protected by a local tree protection ordinance would be anticipated to have greater conflicts with local policies and ordinances protecting biological resources than a traffic signal synchronization or lane-restriping project located in an urban environment.

Transportation projects and land use strategies included in the 2016 RTP/SCS would have the potential to result in significant impacts related to conflicts with local policies and ordinances protecting biological resources, requiring the consideration of mitigation measures.

**IMPACT BIO 6: Potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.**

**Significant Impact**

Transportation projects, and anticipated development projects resulting from the land use strategies, included in the 2016 RTP/SCS would result in conflicts with the provisions of applicable adopted HCPs and NCCPs because of transportation projects in lands that are protected under these HCPs and NCCPs, constituting a significant impact. Regional land use strategies identified in the 2016 RTP/SCS seek to reduce conflicts with the provisions of applicable adopted HCPs and NCCPs by focusing new growth in existing urban areas, suburban town centers, and urban opportunity areas which are conducive to more compact, densified, infill and mixed-used development in the future. Additionally, land use strategies aim to preserve natural habitat areas and support redirecting growth away from high value habitat areas to these urbanized opportunity areas. Major transportation projects included in the 2016 RTP/SCS have the potential to impact land within five of the 13 HCPs/NCCPs in the SCAG region (**Table 3.4.4-10, HCPs and NCCPs Potentially Affected by 2016 RTP/SCS Major Transportation Projects**).

**TABLE 3.4.4-10  
HCPs AND NCCPs POTENTIALLY AFFECTED BY THE 2016 RTP/SCS MAJOR TRANSPORTATION PROJECTS**

HCP/NCCP	County					
	Imperial	Los Angeles	Orange	Riverside	San Bernardino	Ventura*
	HCP/NCCP lands within 500 Feet of Major Transportation Projects					
Coachella Valley MSHCP	—	—	—	X	—	—
DRECP	X	X	—	X	X	—
Orange County Transportation Authority NCCP/HCP	—	—	X	—	—	—
West Mojave HCP	—	X	—	—	X	—
Western Riverside County MSHCP	—	—	—	X	—	—

**SOURCE:**

California Department of Fish and Wildlife. 2015. *NCCP Plan Summaries*. Available from: <https://www.wildlife.ca.gov/Conservation/Planning/NCCP/Plans>

**NOTE:**

\* There are no HCP/NCCPs in Ventura County.

The development of transportation improvement projects, particularly projects involving large-scale ground disturbance during construction such as grade separation projects, mixed flow lane projects, and rail projects, within the SCAG region may result in significant impacts to lands protected by HCPs and NCCPs. It is anticipated that no impacts related to conflicts with HCPs and/or NCCPs would occur where transportation improvement projects are limited to improvements to existing features and do not expand beyond existing road limits. These potential impacts would include direct impacts to lands protected under these HCPs and NCCPs as well as potential direct and indirect impacts to plant and animal species and their habitats afforded protection under these HCPs and NCCPs through conversion of habitat and introduction of lighting and noise during construction and operation. Four of the five HCPs and NCCPs located within the SCAG region contain provisions for the construction of

transportation projects as part of plan-covered activities, acknowledging that such projects normally constitute significant impacts, and specifying the requirement for mitigation measures. Portions of the 2016 RTP/SCS major transportation projects in Imperial, Los Angeles, Riverside, and San Bernardino Counties are within the DRECP. The DRECP is a proposed multispecies HCP intended to conserve threatened and endangered species and natural habitat communities in the Mojave and Colorado Desert regions of Southern California. However, the DRECP only applies to the development of renewable energy projects, including wind and solar energy projects. Therefore, transportation projects included in the 2016 RTP/SCS would not conflict with the DRECP because these projects are not facilitating the development of renewable energy projects. The remaining four HCP/NCCPs (Coachella Valley MSHCP, Orange County Transportation Authority NCCP/HCP, West Mojave HCP, and Western Riverside County MSHCP) include considerations for the development of transportation projects as part of plan-covered activities, and would be significantly impacted by transportation projects included in the 2016 RTP/SCS.

As such, implementation of the 2016 RTP/SCS would potentially result in significant impacts related to conflicts with the provisions of four adopted HCPs and NCCPs applicable to the SCAG region, requiring the consideration of mitigation measures.

### **3.4.5 CUMULATIVE IMPACTS**

**IMPACT BIO-1. Potential to 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 California Department of Fish and Game or U.S. Fish and Wildlife Service.**

#### ***Significant Cumulative Impact***

The 2016 RTP/SCS would not be expected to contribute incrementally with related projects in the SCAG region to impacts on federally and/or state-listed species because all projects would be subject to the federal ESA and Section 2080 of the California ESA, which would require the undertaking of conservation measures prior to the issuance of take permits. The 2016 RTP/SCS would be expected to contribute incrementally with related projects in the SCAG region to impacts on other sensitive and/or rare plant and animal species not afforded protection under the federal and/or state ESAs as a result of an incremental loss of suitable habitat for these species.

Activities conducted under transportation projects included in the 2016 RTP/SCS would include the conversion of natural landscapes containing sensitive biological resources into paved roads. This would result in increased access to undeveloped areas as a result of extension of roads through more rural areas of the SCAG region. This increased access would be expected to indirectly increase manufacturing and institutional development in the SCAG region as a result of increased transportation access within the area, resulting in further habitat fragmentation. Many important habitat corridors cross the SCAG region's boundaries. As a result, the loss of an important corridor, or fragmentation of habitat in the SCAG region could limit the movement of wildlife species resulting in additional cumulative impacts. Similarly, fragmentation could reduce the viability of a species beyond the SCAG region.

The incremental impacts of all of the transportation projects and land use strategies included in the 2016 RTP/SCS to biological resources, when considered with related past, present, or reasonably foreseeable, probable future projects in the SCAG region and surrounding Southern California region, would be expected to result in a significant cumulative impact with regards to biological resources because these projects would contribute to an increase in habitat fragmentation and development upon native habitats, requiring the consideration of mitigation measures.

**IMPACT BIO-2. Potential to have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations; or by the California Department of Fish and Game or US Fish and Wildlife Service.**

***Significant Cumulative Impact***

The 2016 RTP/SCS would be expected to contribute incrementally with related projects in the SCAG region to significant cumulative impacts on state-sensitive plant communities and riparian habitat as a result of an incremental loss of habitat, thus requiring the consideration of mitigation measures. The 2016 RTP/SCS would not be expected to contribute incrementally to state jurisdictional riparian habitats because all projects would be subject to Section 1600 of the State Fish and Game Code, which would require a Streambed Alteration Agreement prior to the alteration of a State jurisdictional area.

**IMPACT BIO-3. Potential to have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.**

***No Cumulative Impact***

The 2016 RTP/SCS would not be expected to contribute incrementally in the SCAG region to impacts on wetlands and waterways because transportation projects that are with jurisdiction and implementing authority of county transportation commissions would be subject to Section 404 of the federal CWA, which would require no net loss of habitat function or value.

**IMPACT BIO-4: Potential to 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.**

***Significant Cumulative Impact***

The 2016 RTP/SCS would be expected to contribute incrementally with related projects in the SCAG region to impacts on migratory corridors and nursery sites as a result of an incremental loss of habitat and habitat fragmentation, requiring the consideration of mitigation measures.

**IMPACT BIO-5: Potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.**

***Significant Cumulative Impact***

The 2016 RTP/SCS would be expected to contribute incrementally with related projects in the SCAG region to conflicts with local policies and ordinances as a result of an incremental net loss of habitat and protected trees and vegetation, requiring the consideration of mitigation measures.

**IMPACT BIO 6: Potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.**

***No Cumulative Impact***

The 2016 RTP/SCS would be not expected to contribute incrementally with related projects in the SCAG region to conflicts with HCPs and/or NCCPs because all covered transportation projects located within the HCPs and/or NCCPs would be required to comply with the provisions of the respective conservation plans. Although development is anticipated to occur within cities and counties even without the 2016 RTP/SCS, the Plan includes regional policies that could influence growth, including distribution patterns, throughout the region. To address this, the analysis in the PEIR considers overall regional impacts of transportation investments and land development strategies described in the 2016 RTP/SCS.

Overall, the impacts to biological resources as a result of transportation projects and investment and land use strategies included in the 2016 RTP/SCS would increase habitat fragmentation and would be expected to incrementally contribute to indirect cumulative impacts to biological resources, in combination with other projects in the SCAG region, requiring the consideration of mitigation measures.

### **3.4.6 MITIGATION MEASURES**

Mitigation measure as they pertain to each CEQA question related to biological resources are described below. Mitigation measures are categorized into two categories: SCAG mitigation and project-level mitigation measures. SCAG mitigation measures shall be implemented by SCAG over the lifetime of the 2016 RTP/SCS. Project-level mitigation measures can and should be implemented by the Lead Agencies for transportation and development projects, as applicable and feasible.

**IMPACT BIO-1. Potential to 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 California Department of Fish and Game or U.S. Fish and Wildlife Service.**

### *SCAG Mitigation Measures*

**MM-BIO-1(a)(1):** SCAG shall facilitate reducing future impacts to species identified as a candidate, sensitive, or special status species and its habitats through cooperation, information sharing, and program development. SCAG shall consult with the resource agencies, such as the USFWS, NMFS, USACOE, USFS, BLM, and CDFW, as well as local jurisdictions including cities and counties, to incorporate designated critical habitat, federally protected wetlands, the protection of sensitive natural communities and riparian habitats, designated open space or protected wildlife habitat, local policies and tree preservation ordinances, applicable HCPs and NCCPs, or other related planning documents into SCAG's ongoing regional planning efforts, such as web-based planning tools for local government including CA LOTS, and other GIS tools and data services, including, but not limited to, Map Gallery, GIS library, and GIS applications, and direct technical assistance efforts such as Toolbox Tuesday Training series and sharing of associated online Training materials. Planning efforts shall be consistent with the approach outlined in the California Wildlife Action Plan.

**MM-BIO-1(a)(2):** SCAG shall develop a conservation strategy (including regional mitigation policies) in coordination with local jurisdictions and agencies, including California Transportation Commissions. The conservation strategy will build from existing efforts including those at the sub-regional and local levels to identify potential priority conservation areas based on mitigation approaches adopted by local agencies. SCAG shall produce and maintain a list/map of potential conservation opportunity areas based on most recent land use data

### *Project-Level Mitigation Measures*

**MM-BIO 1(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects on threatened and endangered species and other special status species that are in the jurisdiction and responsibility of U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Wildlife, other public agencies and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with Sections 7, 9, and 10(a) of the federal Endangered Species Act; the California Endangered Species Act; the Native Plant Protection Act; the State Fish and Game Code; and the Desert Native Plant Act; and related applicable implementing regulations, as applicable and feasible. Additional compliance should adhere to applicable implementing regulations from the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and/or the California Department of Fish and Wildlife. Such measures may include the following, or other comparable measures identified by the Lead Agency:

- Require project design to avoid occupied habitat, potentially suitable habitat, and designated critical habitat, wherever practicable and feasible.
- Where avoidance is determined to be infeasible, provide conservation measures to

fulfill the requirements of the applicable authorization for incidental take pursuant to Section 7 or 10(a) of the federal Endangered Species Act or Section 2081 of the California Endangered Species Act to support issuance of an Incidental take permit. A wide variety of conservation strategies have been successfully used in the SCAG region to protect the survival and recovery in the wild of federally and state-listed endangered species including the bald eagle:

- Avoidance strategies
  - Contribution of in-lieu fees
  - Use of mitigation bank credits
  - Funding of research and recovery efforts
  - Habitat restoration
  - Conservation easements
  - Permanent dedication of habitat
  - Other comparable measures
- Design projects to avoid desert native plants, salvage and relocate desert native plants, and/or pay in lieu fees to support off-site long-term conservation strategies.
  - Develop and implement a Worker Awareness Program (environmental education) to inform project workers of their responsibilities in regards to avoiding and minimizing impacts on sensitive biological resources.
  - Appoint an Environmental Inspector to monitor implementation of mitigation measures.
  - Schedule construction activities to avoid sensitive times for biological resources (e.g. steelhead spawning periods during the winter and spring, nesting bird season) and to avoid the rainy season when erosion and sediment transport is increased.
  - Conduct pre-construction monitoring to delineate occupied sensitive species' habitat to facilitate avoidance.
  - Where projects are determined to be within suitable habitat of listed or sensitive species that have specific field survey protocols or guidelines outlined by the USFWS, CDFW, or other local agency, conduct preconstruction surveys that follow applicable protocols and guidelines and are conducted by qualified and/or certified personnel.

**IMPACT BIO-2. Potential to have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations; or by the California Department of Fish and Game or US Fish and Wildlife Service.**

#### *SCAG Mitigation Measures*

**MM-BIO-1(a)(1) and MM-BIO-1(a)(2).**

#### *Project-Level Mitigation Measures*

**MM-BIO-1(b).**

**MM-BIO-2(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant impacts on state-designated sensitive habitats, including riparian habitats, that are in the jurisdiction and responsibility of



U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the California Department of Fish and Wildlife; and other public agencies, and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with Section 1600 of the State Fish and Game Code, USFS Land Management Plan for the four national forests in the six-county area: Angeles, Cleveland, Los Padres, and San Bernardino, implementing regulations for the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the California Department of Fish and Wildlife; and other related federal, state, and local regulations, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency:

- Consult with the USFWS and NMFS where such state-designated sensitive or riparian habitats provide potential or occupied habitat for federally listed rare, threatened, and endangered species afforded protection pursuant to the federal Endangered Species Act.
- Consult with the USFS where such state-designated sensitive or riparian habitats provide potential or occupied habitat for federally listed rare, threatened, and endangered species afforded protection pursuant to the federal Endangered Species Act and any additional species afforded protection by an adopted Forest Land Management Plan or Resource Management Plan for the four national forests in the six-county area: Angeles, Cleveland, Los Padres, and San Bernardino.
- Consult with the CDFW where such state-designated sensitive or riparian habitats provide potential or occupied habitat for state-listed rare, threatened, and endangered species afforded protection pursuant to the California Endangered Species Act, or Fully-Protected Species afforded protection pursuant to the State Fish and Game Code.
- Consult with the CDFW pursuant to the provisions of Section 1600 of the State Fish and Game Code as they relate to Lakes and Streambeds.
- Consult with the USFWS, USFS, CDFW, and counties and cities in the SCAG region, where state-designated sensitive or riparian habitats are occupied by birds afforded protection pursuant to the Migratory Bird Treaty Act during the breeding season.
- Consult with the CDFW for state-designated sensitive or riparian habitats where fur-bearing mammals, afforded protection pursuant to the provisions of the State Fish and Game Code for fur-bearing mammals, are actively using the areas in conjunction with breeding activities.
- Require project design to avoid sensitive natural communities and riparian habitats, wherever practicable and feasible.
- Where avoidance is determined to be infeasible, develop sufficient conservation measures through coordination with local agencies and the regulatory agency (i.e., USFWS or CDFW) to protect sensitive natural communities and riparian habitats.
- Install fencing and/or mark sensitive habitat to be avoided during construction activities.
- Salvage and stockpile topsoil (the surface material from 6 to 12 inches deep) and perennial plants for use in restoring native vegetation to all areas of temporary disturbance within the project area.
- Revegetate with appropriate native vegetation following the completion of construction activities.
- Complete habitat enhancement (e.g., through removal of non-native invasive wetland species and replacement with more ecologically valuable native species).

- Use Best Management Practices (BMPs) at construction sites to minimize erosion and sediment transport from the area. BMPs include encouraging growth of vegetation in disturbed areas, using straw bales or other silt-catching devices, and using settling basins to minimize soil transport.

**IMPACT BIO-3. Potential to have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.**

### *SCAG Mitigation Measures*

**MM-BIO-1(a)(1) and MM-BIO-1(a)(2).**

### *Project-Level Mitigation Measures*

**MM-BIO-1(b) and MM-BIO-2(b).**

**MM-BIO-3(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant impacts on protected wetlands that are in the jurisdiction and responsibility of the U.S. Army Corps of Engineers, public agencies and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with Section 404 of the Clean Water Act and regulations of the U.S. Army Corps of Engineers (USACOE), and other applicable federal, state and local regulations, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency:

- Require project design to avoid federally protected wetlands consistent with the provisions of Section 404 of the Clean Water Act, wherever practicable and feasible.
- Where the Lead Agency has identified that a project, or other regionally significant project, has the potential to impact other wetlands or waters not protected under Section 404 of the Clean Water Act, seek comparable coverage for these wetlands and waters in consultation with the USACOE and applicable Regional Water Quality Control Boards (RWQCB).
- Where avoidance is determined to be infeasible, develop sufficient conservation measures to fulfill the requirements of the applicable authorization for impacts to federally protected wetlands to support issuance of a permit under Section 404 of the Clean Water Act as administered by the USACOE. The use of an authorized Nationwide Permit or issuance of an individual permit requires the project applicant to demonstrate compliance with the USACOE's Final Compensatory Mitigation Rule. The USACOE reviews projects to ensure environmental impacts to aquatic resources are avoided or minimized as much as possible. Consistent with the administration's performance standard of "no net loss of wetlands" a USACOE permit may require a project proponent to restore, establish, enhance or preserve other aquatic resources in order to replace those affected by the proposed project. This compensatory mitigation process seeks to

replace the loss of existing aquatic resource functions and area. Project proponents required to complete mitigation are encouraged to use a watershed approach and watershed planning information. The new rule establishes performance standards, sets timeframes for decision making, and to the extent possible, establishes equivalent requirements and standards for the three sources of compensatory mitigation:

- Permittee-responsible mitigation
- Contribution of in-lieu fees
- Use of mitigation bank credits
- Require review of construction drawings by a certified wetland delineator as part of each project-specific environmental analysis to determine whether wetlands will be affected and, if necessary, perform a formal wetland delineation.

**IMPACT BIO-4: Potential to 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.**

*SCAG Mitigation Measures*

**MM-BIO-1(a)(1)** and **MM-BIO-1(a)(2)**.

*Project-Level Mitigation Measures*

**MM-BIO-1(b)**, **MM-BIO-2(b)**, and **MM-BIO-3(b)**.

**MM-BIO-4(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant impacts on migratory fish or wildlife species or within established native resident and/or migratory wildlife corridors, and native wildlife nursery sites that are in the jurisdiction and responsibility of U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife, U.S. Forest Service, public agencies and/or Lead Agencies, as applicable and feasible. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with regulations of the USFWS, USFS, CDFW, and related regulations, goals and policies of counties and cities, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency:

- Consult with the USFWS, USFS, CDFW, and counties and cities in the SCAG region, where impacts to birds afforded protection pursuant to the Migratory Bird Treaty Act during the breeding season may occur.
- Consult with the USFS where impacts to migratory wildlife corridors may occur in an area afforded protection by an adopted Forest Land Management Plan or Resource Management Plan for the four national forests in the six-County area: Angeles, Cleveland, Los Padres, and San Bernardino.
- Consult with Counties, cities, and other local organizations when impacts may occur to open space areas that have been designated as important for wildlife movement.

- Prohibit construction activities within 500 feet of occupied breeding areas for wildlife afforded protection pursuant to Title 14 § 460 of the California Code of Regulations protecting fur-bearing mammals, during the breeding season.
- Conduct a survey to identify active raptor and other migratory nongame bird nests by a qualified biologist at least two weeks before the start of construction at project sites from February 1 through August 31.
- Prohibit construction activities with 250 feet of occupied nest of birds afforded protection pursuant to the Migratory Bird Treaty Act, during the breeding season.
- Ensure that suitable nesting sites for migratory nongame native bird species protected under the Migratory Bird Treaty Act and/or trees with unoccupied raptor nests should only be removed prior to February 1, or following the nesting season.
- Conduct site-specific analyses of opportunities to preserve or improve habitat linkages with areas on- and off-site. Analyze Habitat linkages/wildlife movement corridors on a broader and cumulative impact analysis scale to avoid adverse impacts from linear projects that have potential for impacts on a broader scale or critical narrow choke points that could reduce function of recognized movement corridors on a larger scale. Require review of construction drawings and habitat connectivity mapping provided by the CDFW or CNDDDB by a qualified biologist to determine the risk of habitat fragmentation.
- Pursue mitigation banking to preserve habitat linkages and corridors (opportunities to purchase, maintain, and/or restore offsite habitat).
- Demonstrate that proposed projects would not adversely affect movement of any native resident or migratory fish or wildlife species, wildlife movement corridors, or wildlife nursery sites through the incorporation of avoidance strategies into project design, wherever practicable and feasible.
- Evaluate the potential for overpasses, underpasses, and culverts in cases where a roadway or other transportation project may interrupt the flow of species through their habitat. Provide wildlife crossings in accordance with proven standards, such as FHWA's Critter Crossings or Ventura County Mitigation Guidelines and in consultation with wildlife corridor authorities with sufficient knowledge of both regional and local wildlife corridors, and at locations useful and appropriate for the species of concern.
- Install wildlife fencing where appropriate to minimize the probability of wildlife injury due to direct interaction between wildlife and roads or construction.
- Where avoidance is determined to be infeasible, design sufficient conservation measures through coordination with local agencies and the regulatory agency (i.e., USFWS or CDFW) and in accordance with the respective counties and cities general plans to establish plans to mitigate for the loss of fish and wildlife movement corridors and/or wildlife nursery sites. The consideration of conservation measures may include the following measures, in addition to the measures outlined in **MM-BIO-1(b)**, where applicable:
  - Wildlife movement buffer zones
  - Corridor realignment
  - Appropriately spaced breaks in center barriers
  - Stream rerouting
  - Culverts
  - Creation of artificial movement corridors such as freeway under- or overpasses
  - Other comparable measures

- Where the Lead Agency has identified that a RTP/SCS project, or other regionally significant project, has the potential to impact other open space or nursery site areas, seek comparable coverage for these areas in consultation with the USFWS, CDFW, NMFS, or other local jurisdictions.

**IMPACT BIO-5: Potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.**

*SCAG Mitigation Measures*

**MM-BIO-1(a)(1)** and **MM-BIO-1(a)(2)**.

*Project-Level Mitigation Measures*

**MM-BIO-1(b)**, **MM-BIO-2(b)**, **MM-BIO-3(b)**, and **MM-BIO-4(b)**.

**MM-BIO-5(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant impacts related to conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, that are in the jurisdiction and responsibility of local jurisdictions and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to comply with county, city and local policies or ordinances, protecting biological resources, such as tree preservation policies or ordinances, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency:

- Consult with the appropriate local agency responsible for the administration of the policy or ordinance protecting biological resources.
- Prioritize retention of trees on-site consistent with local regulations. Provide adequate protection during the construction period for any trees that are to remain standing, as recommended by a certified arborist.
- If specific project area trees are designated as “Protected Trees,” “Landmark Trees,” or “Heritage Trees,” obtain approval for encroachment or removals through the appropriate entity, and develop appropriate mitigation measures at that time, to ensure that the trees are replaced. Mitigation trees shall be locally collected native species.
- Before the start of any clearing, excavation, construction or other work on the site, securely fence off every protected tree deemed to be potentially endangered by said site work. Keep such fences in place for duration of all such work. Clearly mark all trees to be removed. Establish a scheme for the removal and disposal of logs, brush, earth and other debris that will avoid injury to any protected tree.
- Where proposed development or other site work could encroach upon the protected perimeter of any protected tree, incorporate special measures to allow the roots to breathe and obtain water and nutrients. Minimize any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter. Require that no change in existing ground level occur from the base of any protected tree at any time. Require that no burning or use of equipment with an open flame occur near or

within the protected perimeter of any protected tree.

- Require that no storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees occur from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. Require that no heavy construction equipment or construction materials be operated or stored within a distance from the base of any protected trees. Require that wires, ropes, or other devices not be attached to any protected tree, except as needed for support of the tree. Require that no sign, other than a tag showing the botanical classification, be attached to any protected tree.
- Thoroughly spray the leaves of protected trees with water periodically during construction to prevent buildup of dust and other pollution that would inhibit leaf transpiration.
- If any damage to a protected tree should occur during or as a result of work on the site, the appropriate local agency will be immediately notified of such damage. If, such tree cannot be preserved in a healthy state, require replacement of any tree removed with another tree or trees on the same site deemed adequate by the local agency to compensate for the loss of the tree that is removed.
- Remove all debris created as a result of any tree removal work from the property within two weeks of debris creation, and such debris shall be properly disposed of in accordance with all applicable laws, ordinances, and regulations.
- Design projects to avoid conflicts with local policies and ordinances protecting biological resources.
- Where avoidance is determined to be infeasible, sufficient conservation measures to fulfill the requirements of the applicable policy or ordinance shall be developed, such as to support issuance of a tree removal permit. The consideration of conservation measures may include:
  - Avoidance strategies
  - Contribution of in-lieu fees
  - Planting of replacement trees at a minimum ratio of 2:1
  - Re-landscaping areas with native vegetation post-construction
  - Other comparable measures.

**IMPACT BIO 6: Potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.**

*SCAG Mitigation Measures*

See **MM-BIO-1(a)(1)** and **MM-BIO-1(a)(2)**.

*Project-Level Mitigation Measures*

See **MM-BIO-1(b)**, **MM-BIO-2(b)**, **MM-BIO-3(b)**, **MM-BIO-4(b)**, and **MM-BIO-5(b)**.

**MM-BIO-6(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant impacts on HCP and

NCCPs that are in the jurisdiction and responsibility of public agencies and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with Section 7 or 10(a) of the federal Endangered Species Act or Section 2081 of the California Endangered Species Act; and implementing regulations, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency:

- Consult with the appropriate federal, state, and/or local agency responsible for the administration of HCPs or NCCPs.
- Wherever practicable and feasible, the project shall be designed to avoid through project design lands preserved under the conditions of an HCP or NCCP.
- Where avoidance is determined to be infeasible, sufficient conservation measures to fulfill the requirements of the HCP and/or NCCP, which would include but not be limited to applicable authorization for incidental take pursuant to Section 7 or 10(a) of the federal Endangered Species Act or Section 2081 of the California Endangered Species Act, shall be developed to support issuance of an Incidental take permit or any other permissions required for development within the HCP/NCCP boundaries. The consideration of additional conservation measures would include the measures outlined in **MM-BIO-1(b)**, where applicable.

### **3.4.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION**

**IMPACT BIO-1. Potential to 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 California Department of Fish and Game or U.S. Fish and Wildlife Service.**

The implementation of mitigation measures **MM-BIO-1(a)(1)**, **MM-BIO-1(a)(2)**, and **MM-BIO-1(b)** would reduce the level of direct, indirect, and cumulative impacts to federally and state-listed plant and wildlife species and their habitats, state rare and endangered plant species, state fully protected species, locally important furbearing mammals, and locally important desert native plants to below the level of significance. Each of these groups of species have federal and/or state statutes that prohibit the take of these protected species. Therefore, it is expected that compliance with these statutes would be sufficient to prevent impacts to these resources. However, there are no state or federal statutes that provide protection to other sensitive plant and wildlife species such as candidate species, plant species determined to be rare by the CNPS or wildlife species classified as California Species of Special Concern. Therefore, direct, indirect, and cumulative impacts to sensitive plant and wildlife species that are not specifically protected by federal and/or state statutes would remain significant and unavoidable.

**IMPACT BIO-2. Potential to have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations; or by the California Department of Fish and Game or US Fish and Wildlife Service.**

The implementation of mitigation measures **MM-BIO-1(a)(1)**, **MM-BIO-1(a)(2)**, **MM-BIO-1(b)**, and **MM-BIO-2(b)** would reduce the level of direct, indirect, and cumulative impacts to State Jurisdictional riparian habitats to below the level of significance because Section 1600 of the State Fish and Game Code requires that a Streambed Alteration Agreement (SAA) be obtained prior to the alteration of any State Jurisdictional areas. An SAA requires that “no net loss” of habitat values or acreage occur. Therefore, it is expected that compliance with this statute would be sufficient to prevent direct, indirect, and cumulative impacts to State Jurisdictional riparian habitats. However, there are no state or federal statutes that provide protection to other sensitive plant communities or riparian communities in upland conditions that do not fall within areas under state jurisdiction. Therefore, direct, indirect, and cumulative impacts to sensitive plant communities and riparian communities that are not specifically protected by Section 1600 of the State Fish and Game Code would remain significant and unavoidable.

**IMPACT BIO-3. Potential to have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.**

The implementation of mitigation measures **MM-BIO-1(a)(1)**, **MM-BIO-1(a)(2)**, **MM-BIO-1(b)**, **MM-BIO-2(b)**, and **MM-BIO-3(b)** would reduce the level of direct, indirect, and cumulative impacts to federal wetlands and waterways to below the level of significance because Section 404 of the Federal Clean Water Act requires that authorization pursuant to a Nationwide or Individual permit be obtained prior to any alteration of Waters of the United States. Conditions of Section 404 of the Clean Water Act require that “no net loss” of federal wetlands and waterways take place as a condition of permit issuance. Therefore, it is expected that compliance with this statute would be sufficient to reducedirect, indirect, and cumulative impacts to Waters of the United States, to below the level of significance.

**IMPACT BIO-4: Potential to interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.**

The implementation of mitigation measures **MM-BIO-1(a)(1)**, **MM-BIO-1(a)(2)**, **MM-BIO-1(b)**, **MM-BIO-2(b)**, **MM-BIO-3(b)**, and **MM-BIO-4(b)** would reduce the level of direct, indirect, and cumulative impacts to nursery sites for resident and migratory birds to below the level of significance. However, this mitigation measure would not protect nursery sites of other native wildlife species. The implementation of mitigation measures **MM-BIO-1(a)(1)**, **MM-BIO-1(a)(2)**, **MM-BIO-1(b)**, **MM-BIO-2(b)**, **MM-BIO-3(b)**, and **MM-BIO-4(b)** would minimize the level of potential impacts to migratory corridors and native nursery sites for other wildlife species. However, due to the large scale of the 2016 RTP/SCS, both spatially and temporally, impacts to migratory corridors and nursery sites for other wildlife species



would remain significant. Impacts to migratory corridors and net impacts to nursery sties cannot be reduced below the level of significance through mitigation. Therefore, direct, indirect, and cumulative impacts to migratory corridors and nursery sites would remain significant and unavoidable.

**IMPACT BIO-5: Potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.**

The implementation of mitigation measures **MM-BIO-1(a)(1)**, **MM-BIO-1(a)(2)**, **MM-BIO-1(b)**, **MM-BIO-2(b)**, **MM-BIO-3(b)**, **MM-BIO-4(b)**, and **MM-BIO-5(b)** would minimize the level of potential direct, indirect, and cumulative impacts related to conflicts with local policies and ordinances protecting biological resources. However, due to the large scale of the 2016 RTP/SCS, both spatially and temporally, direct, indirect, and cumulative impacts related to conflicts with local policies and ordinances protecting biological resources would remain significant and unavoidable.

**IMPACT BIO 6: Potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.**

The implementation of mitigation measures **MM-BIO-1(a)(1)**, **MM-BIO-1(a)(2)**, **MM-BIO-1(b)**, **MM-BIO-2(b)**, **MM-BIO-3(b)**, **MM-BIO-4(b)**, **MM-BIO-5(b)**, and **MM-BIO-6(b)** would avoid or reduce the level of direct, indirect, and cumulative impacts related to conflicts with the provisions of adopted HCPs and NCCPs applicable to the 2016 RTP/SCS to below the level of significance. Any transportation improvement projects proposed for development within these HCPs and/or NCCPs would be required to comply with the provisions and policies of the respective plan. Therefore, it is expected that compliance with these provisions would be sufficient to reduce direct, indirect, and cumulative impacts related to conflicts with HCPs and NCCPs to below the level of significance.