# 3.8 Biological Resources

## 3.8.1 Introduction

This section identifies biological resources within the Tier 1/Program EIS/EIR Study Area and provides an evaluation of biological resource effects associated with implementing the No Build Alternative and the Build Alternative Options. Information contained in this section is summarized from the *Biological and Wetland Resources Technical Memorandum* (Appendix G of this Tier 1/Program EIS/EIR).

## 3.8.2 Regulatory Framework

In accordance with NEPA (42 USC Section 4321 et seq.), CEQ regulations implementing NEPA (40 CFR Parts 1501-1508), FRA's Procedures for Considering Environmental Impacts (64 FR 28545, May 26, 1999) and CEQA, FRA identified biological resources within the Tier 1/Program EIS/EIR Study Area and evaluated the potential impacts on those resources as a result of implementing the Build Alternative Options.

### Federal

#### *Federal Endangered Species Act*

The Federal Endangered Species Act (FESA) of 1973, as amended (16 USC Section 1531 et seq.) provides a means whereby the ecosystems upon which endangered and threatened species depend may be conserved and provides a program for the conservation of such endangered and threatened species (Section 1531[b], Purposes). All federal agencies are to seek to conserve endangered and threatened species and utilize applicable authorities in furtherance of the purposes of FESA (Section 1531[c][1], Policy).

USFWS has primary administrative responsibility under FESA for terrestrial and freshwater organisms. Species listed as threatened or endangered, or proposed, have specific protections under FESA. All federal agencies are required to consult (or confer) with USFWS (and/or the National Marine Fisheries Service for marine species) in accordance with Section 7 of FESA if the agency determines that any proposed action may affect a listed species. Each agency must ensure that any federal action or activity is not likely to jeopardize the continued existence of any species listed or proposed to be listed under FESA or result in the destruction or modification of designated or proposed critical habitat (Section 1536[a], Interagency Cooperation, and 50 CFR Part 402). Section 9 of FESA prohibits any "take" (as defined in FESA: to harass, harm, pursue, hunt, shoot,

wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of a listed species. Section 10 of FESA allows for exemptions to the take prohibition, based on incidental take statements issued in accordance with biological opinions issued under Section 7 consultation or other authorized permits.

### *Migratory Bird Treaty Act*

The Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 USC Section 703-712), is the domestic law that affirms, or implements, the U.S.' commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource. Each of the conventions protects selected species of birds that occur in both countries at some point during their annual life cycle. The MBTA protects migratory birds and their nests, eggs, young, and parts from possession, sale, purchase, barter, transport, import, export, and take. For purposes of the MBTA, take is defined as “to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect” (50 CFR Part 10.12). The MBTA applies to migratory birds identified in 50 CFR Part 10.13.

The MBTA protects all birds occurring in the U.S., except for several non-native species (e.g., house sparrow, European starlings, and rock pigeons) and non-migratory upland game birds. USFWS implements and enforces the MBTA; is the lead federal agency for managing and conserving migratory birds in the U.S.; regulates the take of migratory birds for educational, scientific, and recreational purposes; and requires that harvests be limited to levels that prevent overutilization. Special purpose permits under 50 CFR Part 2I.27 of the MBTA are required if an action would take, possess, or involve the sale or transport of birds protected by the MBTA.

### *Bald and Golden Eagle Protection Act*

The Bald and Golden Eagle Protection Act of 1940, and as amended (16 USC Section 668-668d), prohibits anyone without a permit issued by USFWS from taking bald or golden eagles, including their parts, nests, or eggs. The Bald and Golden Eagle Protection Act defines take as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” For purposes of these guidelines, disturb means “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

### *Executive Order 13112, Invasive Species*

EO 13112 requires federal agencies to identify actions that may affect invasive species; use relevant programs to prevent the introduction of invasive species; detect, respond, and control such species; monitor invasive species populations; provide for restoration of native species; conduct research on invasive species; and promote public education on the spread of invasive species.

### *Executive Order 13186, Protection on Migratory Bird Populations*

EO 13186 directs each federal agency taking actions that have or may have effects on migratory bird populations to work with USFWS to develop a memorandum of understanding that will promote the conservation of migratory bird populations.

## State

### *California Endangered Species Act*

The California Endangered Species Act (CESA) prohibits the take of any fish, wildlife, or plant species listed as endangered or threatened, or designated as candidates for listing, under CESA. Take refers to mortality or injury of the listed species itself and not the modification of a listed species habitat. Compared with the FESA process, CESA contains a procedure for CDFW to issue a Section 2081 incidental take permit authorizing the take of listed and candidate species incidental to an otherwise lawful activity, subject to specified conditions, including that the effects of the take are fully mitigated.

### *Natural Communities Conservation Planning Act*

The Natural Communities Conservation Planning Act encourages broad-based planning to provide for effective protection and conservation of the state's wildlife resources while continuing to allow appropriate development and growth. Natural community conservation plans identify measures necessary to conserve and manage natural biological diversity within the planning area while allowing compatible and appropriate economic development, growth, and other human uses.

### *California Fish and Game Code*

#### SECTIONS 3511, 4700, 5050, AND 5515 (FULLY PROTECTED)

The California Fish and Game Code designates 37 fully protected species and prohibits the take or possession at any time of such species with certain limited exceptions.

#### SECTIONS 3503, 3503.5, AND 3513 (BIRD PROTECTIONS)

Section California Fish and Game Code 3503 states it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by code or any regulation made pursuant thereto. Section 3503.5 prohibits the take, possession, or needless destruction of any nests, eggs, or birds in the orders Falconiformes (New World vultures, hawks, eagles, ospreys, and falcons, among others) or Strigiformes (owls). Section 3513 prohibits the take or possession of any migratory non-game bird or part thereof, as designated in the MBTA. To avoid violation of the take provisions, it is generally required that project-related disturbance at active nesting territories be reduced or eliminated during the nesting cycle.

### *California Native Plant Protection Act*

The California Native Plant Protection Act requires all state agencies to use their authority to carry out programs to conserve endangered and rare native plants. Under the California Native Plant Protection Act, the Fish and Game Commission may designate native plants as endangered or rare and prohibit the take of such plants, with certain exceptions.

## Regional

### *Coachella Valley Multiple Species Habitat Conservation Plan*

The Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive, multijurisdictional habitat conservation plan focusing on the conservation of species and their associated habitats in the Coachella Valley region of Riverside County. It covers 27 sensitive plant and wildlife species, as well as 27 natural communities. The approval of the Coachella Valley MSHCP and execution of the Implementing Agreement allows signatories to the Implementing Agreement to issue take authorizations for all species covered by the Coachella Valley MSHCP, including federally and state-listed species, as well as other identified covered species and/or their habitats.

Each participating city or local jurisdiction within the Coachella Valley imposes a development mitigation fee for new development projects within its boundaries. With payment of the mitigation fee and compliance with the requirements of the Coachella Valley MSHCP, full mitigation in compliance with CEQA, NEPA, FESA, and CESA is granted. The plan is administered by the Coachella Valley Conservation Commission. Coverage under this plan is limited to the plan participants. RCTC is not a participant to the Coachella Valley MSHCP.

#### *Western Riverside County Multiple Species Habitat Conservation Plan*

Similar to the Coachella Valley MSHCP, the Western Riverside County MSHCP is a comprehensive, multijurisdictional habitat conservation plan focusing on conservation of species and their associated habitats in western Riverside County and is managed by the Regional Conservation Authority. RCTC is a signatory to the Implementing Agreement for the Western Riverside County MSHCP. Any individual, business, or public agency wishing to construct a project within the criteria area of the Western Riverside County MSHCP must obtain an approval from the Regional Conservation Authority and a permit for the project from the local agency responsible.

#### *County General Plans*

Applicable elements of the general plans for the four counties that the Program Corridor crosses (Los Angeles County, Orange County, Riverside County, and San Bernardino County) are summarized in the *Biological and Wetland Resources Technical Memorandum* (Appendix G of this Tier 1/Program EIS/EIR).

### Local and Tribal Governments

Regulations from cities, local agencies, and tribal governments would be identified in the Tier 2/Project-level analysis once site-specific rail infrastructure improvements and station facilities are known.

## 3.8.3 Methods for Evaluating Environmental Effects

The methodology for the biological resource evaluation consists of a service-level quantitative assessment, not a detailed evaluation of individual biological resources. The quantification compares relative effects among the Build Alternative Options. A detailed Tier 2/Project-level analysis would be completed and identify permitting requirements for construction.

The methodology for this evaluation consists of using existing data to identify biological resources, such as special-status plant and wildlife species, sensitive vegetation communities, and suitable habitat for federally and state-listed species, that could be present within the Tier 1/Program EIS/EIR Study Area. Each Build Alternative Option is compared with other Build Alternative Options within the same geographical sections, as well as with the No Build Alternative.

### Tier 1/Program EIS/EIR Study Area

This service-level evaluation is limited to a desktop evaluation of the data sources described in Section 3.8.3. The Tier 1/Program EIS/EIR Study Area was combined with GIS overlays to identify potential biological resources (special-status plant and wildlife species, sensitive vegetation

communities, and suitable habitat for federally and state-listed species) that could be affected by the Program. These potential biological resources were identified on a broad scale using available mapping information. A detailed description of the Tier 1/Program EIS/EIR Study Area is provided in Section 3.1, Introduction to Environmental Analysis.

For this evaluation, the estimated number and acreage of sensitive vegetation communities and habitat were compared for each of the Build Alternative Options. The detailed footprints associated with each of the Build Alternative Options considered would not be determined until additional studies are conducted in the Tier 2/Project-level analysis. Therefore, the number and acreages associated with these resources within the Tier 1/Program EIS/EIR Study Area provide an estimate of the magnitude of potential effects. The intensity of an effect as a result of the Build Alternative Options are characterized as negligible, moderate, or substantial compared with the No Build Alternative.

In a Tier 2/Project-level analysis, impacts would be analyzed quantitatively using more detailed analytical methods, such as field surveys, mapping of biological resources, and use of GIS overlays of biological resources with the defined Project footprint to quantify impacts.

## Data Sources

Online GIS data available from USFWS, CDFW, and a variety of other sources were used to identify biological resources with potential to occur within the Tier 1/Program EIS/EIR Study Area. Specifically, the following resources were reviewed:

- **USFWS Information for Planning and Consultation website:** A list of federal candidate, proposed, threatened, and endangered plant and wildlife species was obtained for the Tier 1/Program EIS/EIR Study Area from the USFWS Information for Planning and Consultation website. The list was generated on June 21, 2018 (Appendix G of this Tier 1/Program EIS/EIR).
- **California Natural Diversity Database RareFind:** Lists of special-status plant and wildlife species were prepared through a two-fold inquiry of the California Natural Diversity Database RareFind 5 database. A standard quad search was performed using the RareFind program (CDFW 2018) that included 28 USGS 7.5-minute quadrangles including and surrounding the Tier 1/Program EIS/EIR Study Area (provided in Appendix G of this Tier 1/Program EIS/EIR). In addition, a GIS mapping exercise captured all California Natural Diversity Database occurrences for special-status species with the potential to occur within the Tier 1/Program EIS/EIR Study Area.

- **California Native Plant Society's Online Inventory of Rare and Endangered Plants of California:** The California Native Plant Society's Online Inventory of Rare and Endangered Plants of California was queried for special-status plant species that occur in Los Angeles, Orange, San Bernardino, and Riverside Counties (California Native Plant Society 2018).
- **eBird database:** This list was consulted to identify bird observations in or near the Tier 1/Program EIS/EIR Study Area (eBird 2017).
- **Critical habitat:** To identify proposed and designated critical habitat within 1 mile of the Tier 1/Program EIS/EIR Study Area, GIS layers from the USFWS Ventura and Carlsbad field office websites were reviewed in June 2018.
- **Areas of protected habitat:** To identify areas of protected habitat, the California Protected Areas Database 2017 was consulted.
- **Wildlife movement linkages:** To identify wildlife movement linkages, the South Coast Missing Linkage Project: A Linkage Design for the San Bernardino-San Jacinto Connection (Penrod et al. 2005) and California Essential Habitat Connectivity Project (Spencer et al. 2010) were consulted.

## Related Resources

This evaluation incorporates data and evaluation from related resources to contribute to the assessment of effects on biological resources. These related resources are identified in Table 3.8-1.

**Table 3.8-1. Related Resource Inputs for Biological Resources**

| Resource | Input for Biological Assessment |
|---|---|
| Land Use and Planning (Section 3.2) | Land uses that correlate to terrestrial or aquatic habitats, such as open space and conservation areas, were identified.<br>Applicable habitat conservation plans were identified. |
| Noise and Vibration (Section 3.6) | Areas where noise and vibration effects exceed allowable thresholds and that correlate to terrestrial or aquatic habitats or threatened and endangered species' habitats were identified. |
| Jurisdictional Waters and Wetland Resources (Section 3.7) | Jurisdictional waters and wetland resources that may provide aquatic habitat and/or support threatened and endangered species were identified. |

| Resource | Input for Biological Assessment |
|---|---|
| Floodplains, Hydrology, and Water Quality (Section 3.9) | Freshwater resources that may provide aquatic habitat and/or support threatened and endangered species were identified. |

## 3.8.4 Affected Environment

The Program Corridor crosses a large geographic area within Southern California, spanning approximately 144 miles from its western terminus in Los Angeles to its eastern terminus in Coachella. The topography crossed by the Program Corridor ranges from relatively flat, urban landscapes in the Western Section to hilly canyons in the central portion, and flat, low desert habitat in the Eastern Section. Elevations within the Program Corridor range from 300 feet above mean sea level at the western terminus in Los Angeles up to 600 feet in Corona, 1,000 feet in Colton, and 2,600 feet in Beaumont (highest elevation), and down to 75 feet below mean sea level at the eastern terminus in Coachella (lowest elevation).

The Program Corridor traverses four major geographic regions: the Los Angeles Basin from Los Angeles to Corona, the Inland Empire from Corona to Redlands, the Peninsular Range from Redlands to Banning, and the northwestern Sonoran Desert from Banning to Coachella.

The Program Corridor occurs within an existing railroad corridor that traverses areas that have predominately been heavily modified for urban purposes, especially in the Western Section of the Tier 1/Program EIS/EIR Study Area, although some areas occur in or adjacent to lands that are in a natural condition. Much of the Tier 1/Program EIS/EIR Study Area from Los Angeles to Redlands is urbanized, offering limited habitat value for most plant and wildlife species.

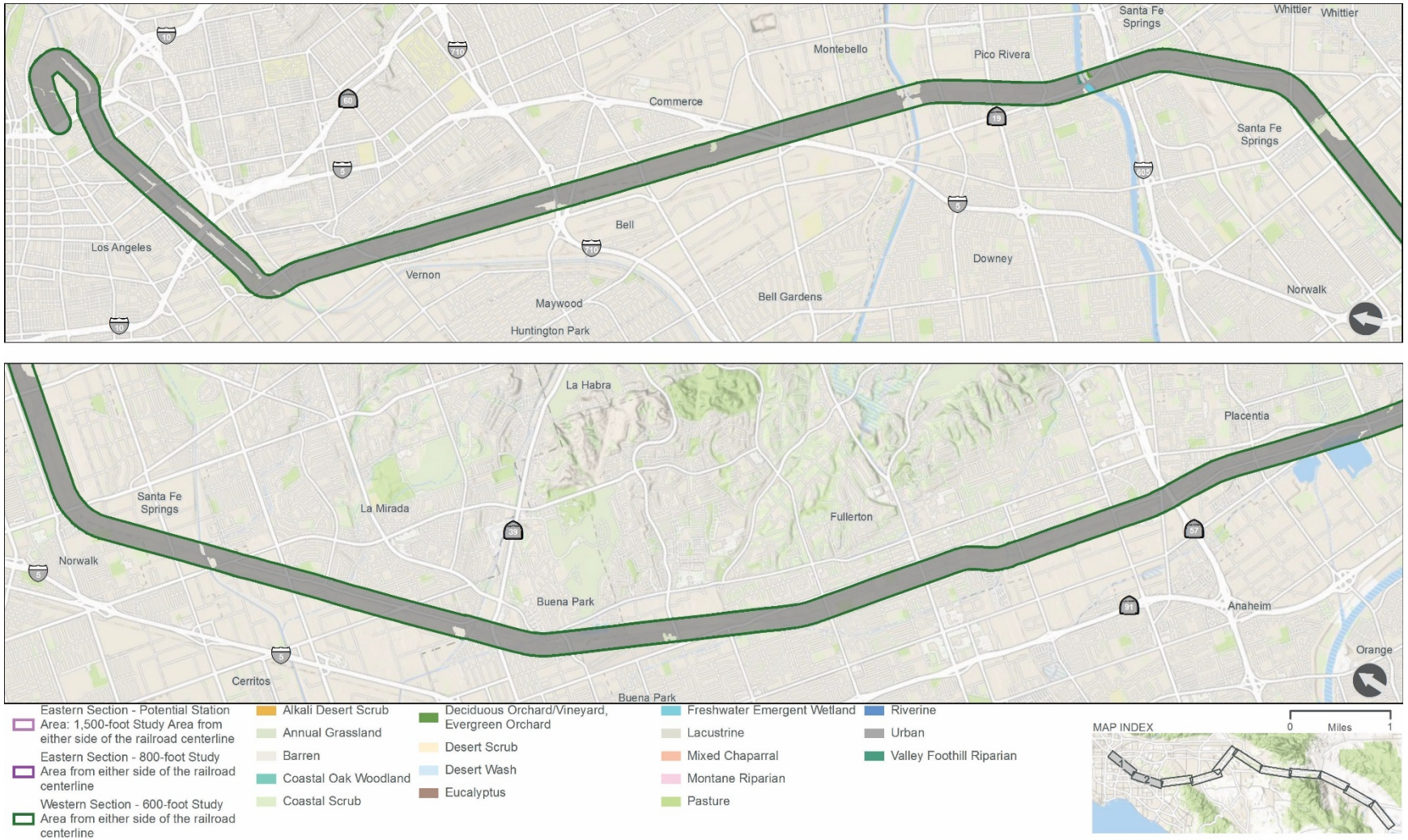
Areas of natural habitat occur mainly along the Santa Ana River basin, which provides riparian woodland and wetland habitat for a number of special-status plant and wildlife species. San Timoteo Canyon dominates the region between Redlands and Banning. Most of this region is marked by natural areas of riparian woodland, grasslands, and wetlands that provide habitat for a number of special-status plants and wildlife. The Program Corridor east of Banning occurs within the Sonoran Desert and is a mixture of developed and undeveloped desert scrub dominated by creosote (*Larrea tridentata*). Transportation facilities such as interstate highways, state highways, local roadways, and existing railroads are present within or adjacent to the Program Corridor.

### Vegetation Communities and Other Land Cover Types

Figure 3.8-1 shows the vegetation communities located within the Tier 1/Program EIS/EIR Study Area. Detailed descriptions of these vegetation communities and other land cover types are provided in Appendix G of this Tier 1/Program EIS/EIR.

## Figure 3.8-1. Vegetation Communities within the Tier 1/Program EIS/EIR Study Area

## (Page 1 of 6)



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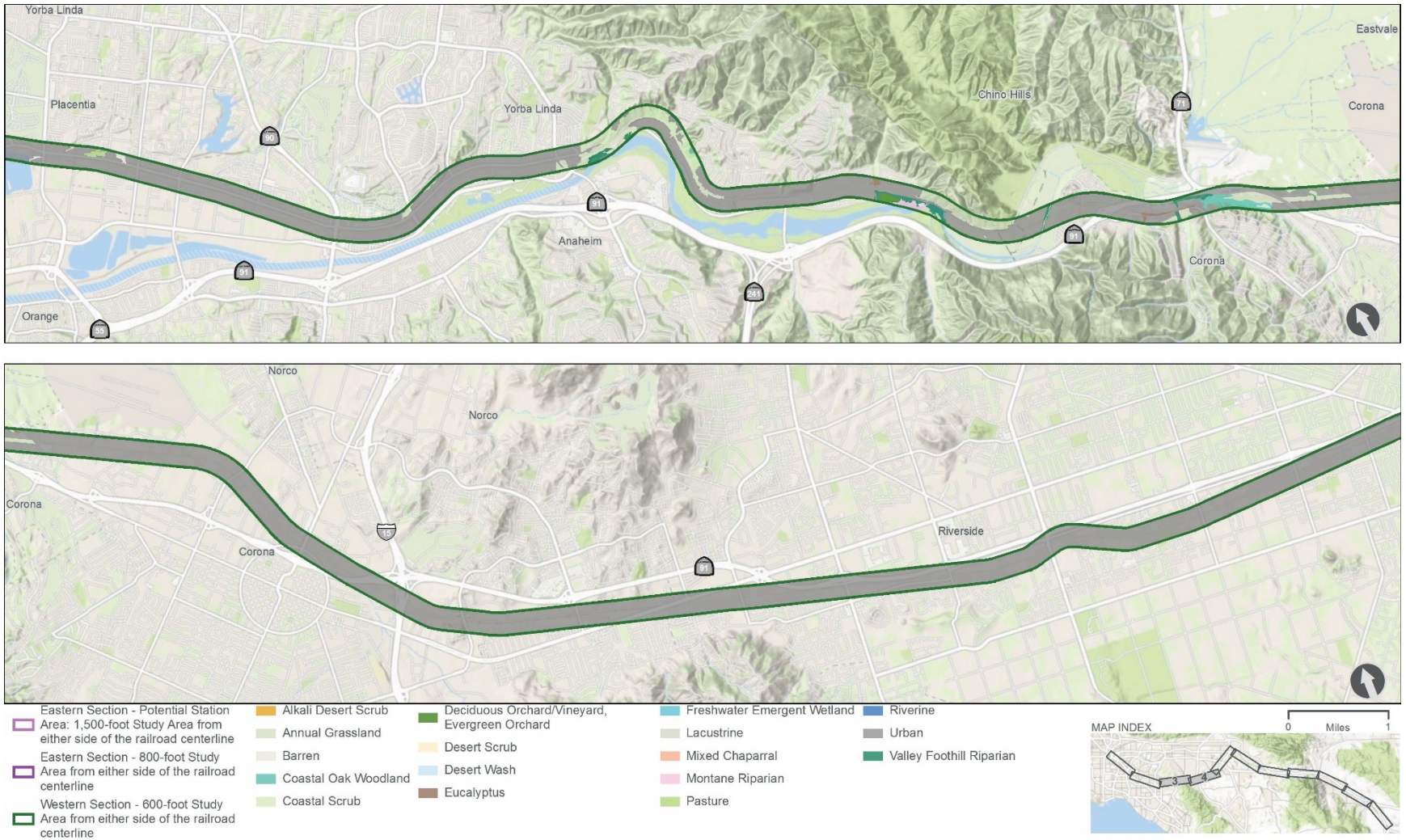
## Figure 3.8-1. Vegetation Communities within the Tier 1/Program EIS/EIR Study Area

## (Page 2 of 6)



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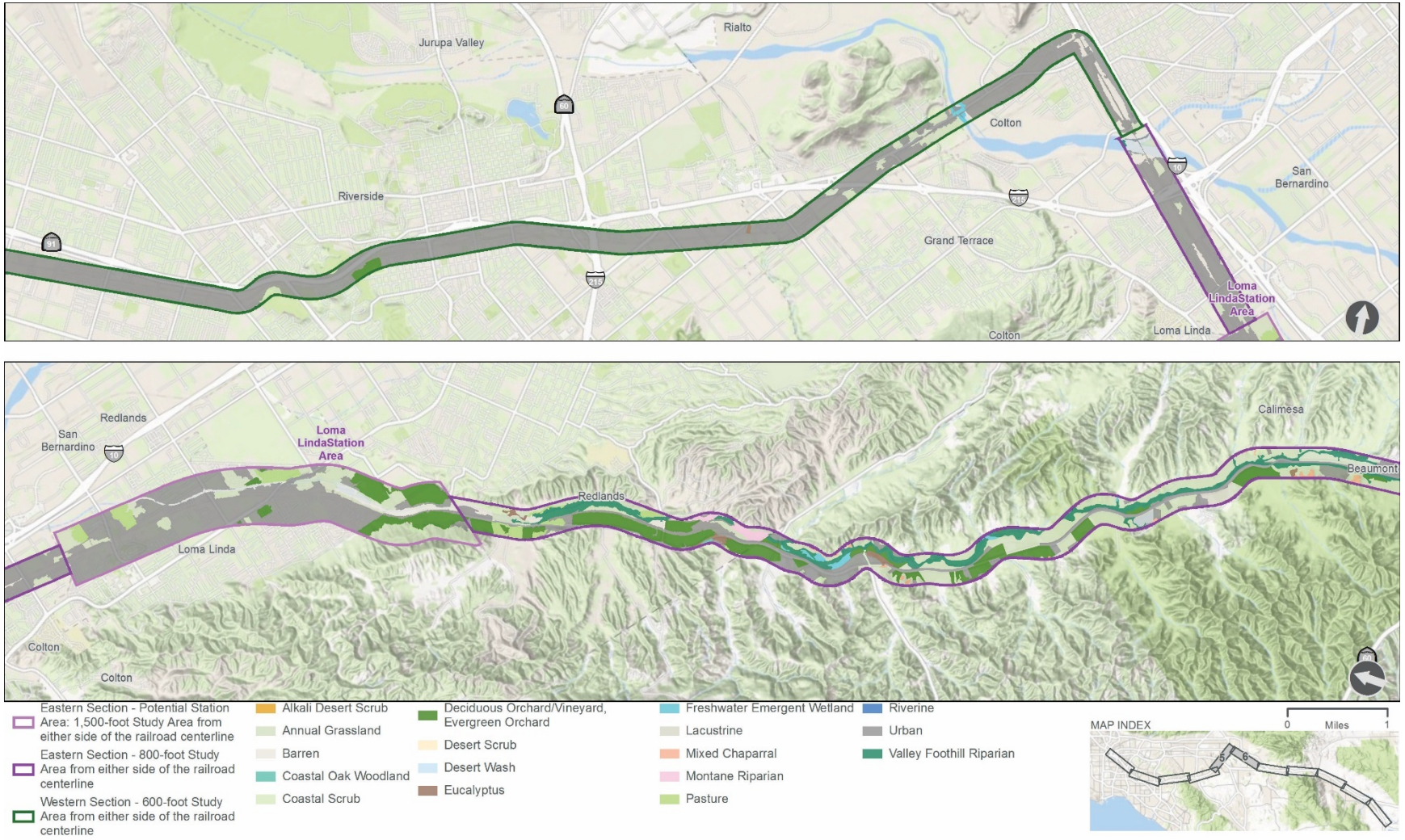
## Figure 3.8-1. Vegetation Communities within the Tier 1/Program EIS/EIR Study Area

## (Page 3 of 6)



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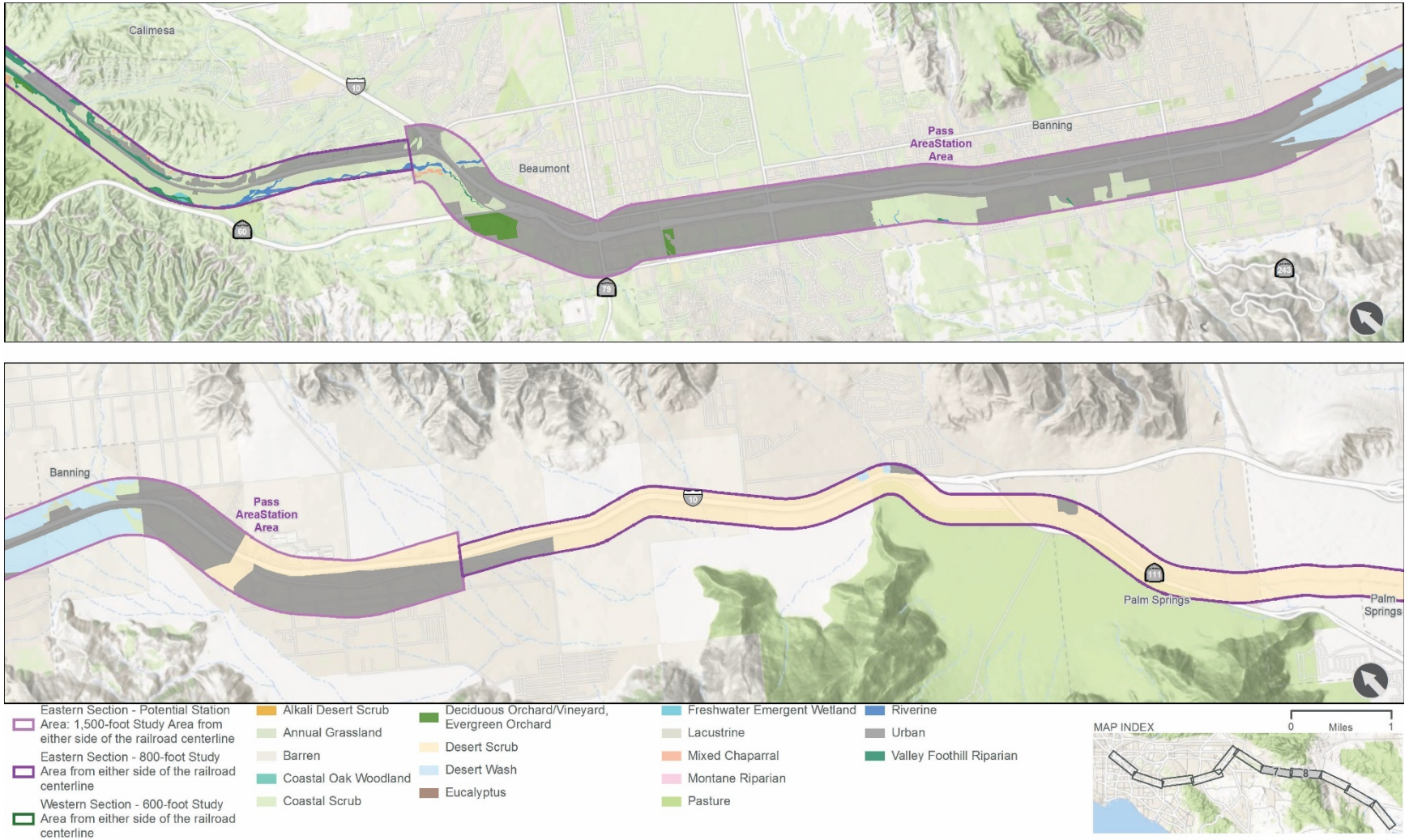
## Figure 3.8-1. Vegetation Communities within the Tier 1/Program EIS/EIR Study Area

## (Page 4 of 6)



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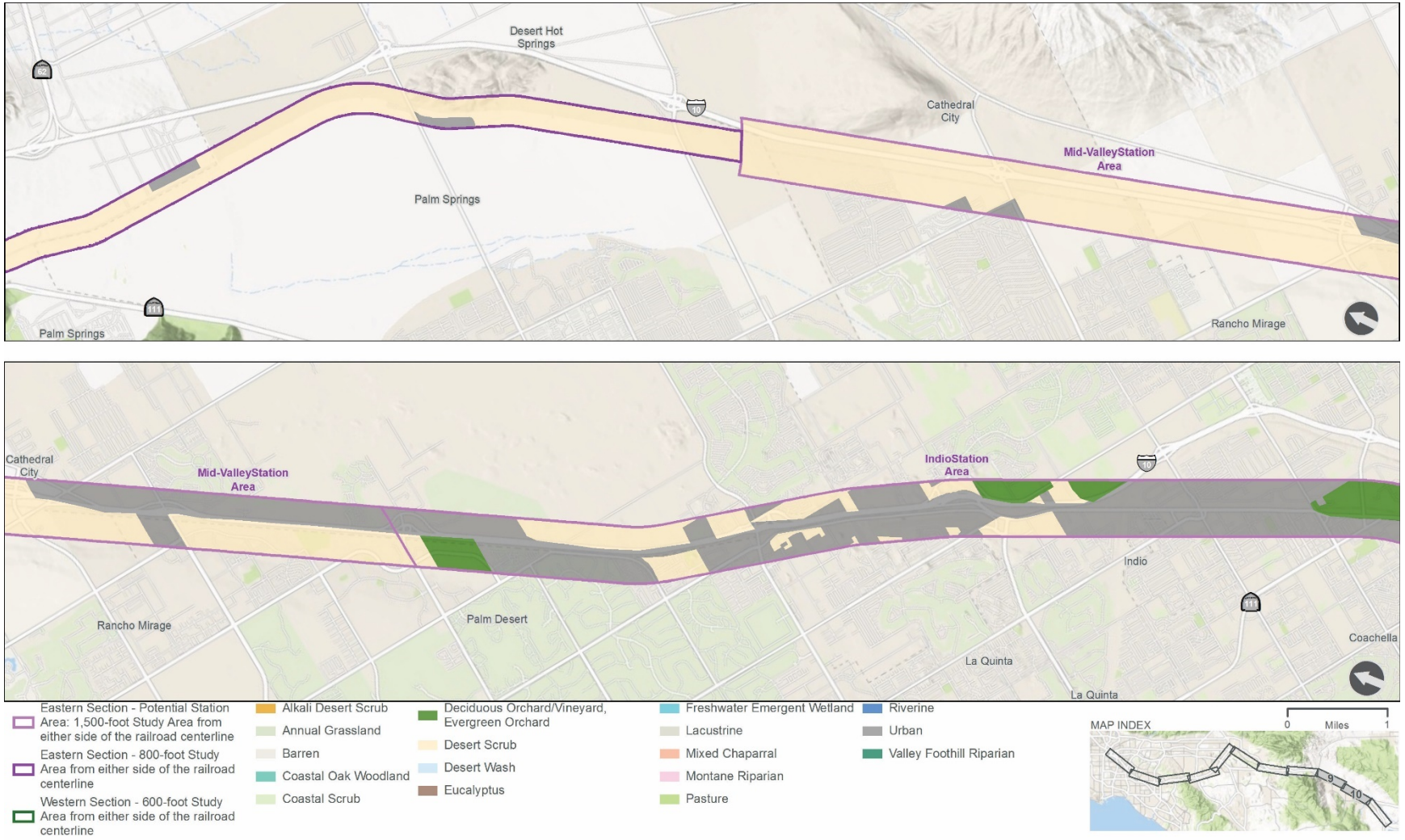
## Figure 3.8-1. Vegetation Communities within the Tier 1/Program EIS/EIR Study Area

## (Page 5 of 6)



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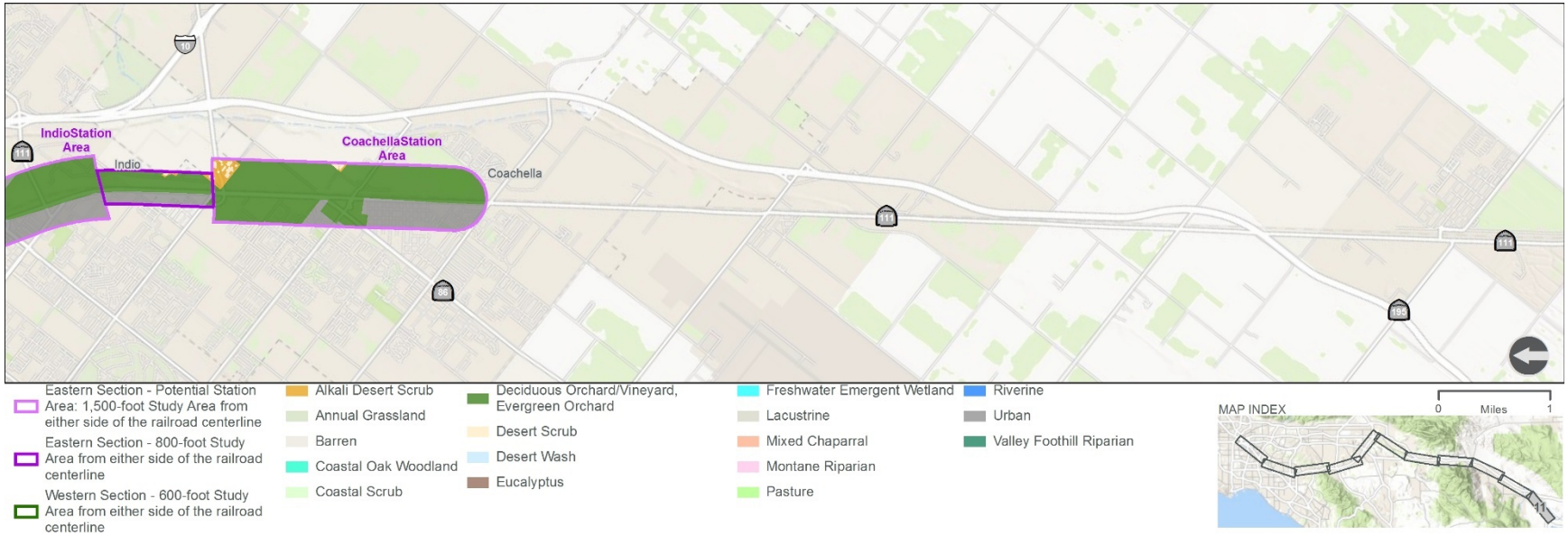
## Figure 3.8-1. Vegetation Communities within the Tier 1/Program EIS/EIR Study Area

## (Page 6 of 6)



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### *Build Alternative Option 1 (Coachella Terminus)*

Table 3.8-2 summarizes vegetation communities or land cover types within the Program Corridor under Build Alternative Option 1. As indicated in Table 3.8-2, the dominant vegetation communities or land cover types in the Western Section of the Program Corridor are urban (9,379.67 acres), annual grassland (316.28 acres), and barren (158.46 acres), which equals approximately 98 percent of the total area within the Western Section of Build Alternative Option 1. For the Eastern Section of the Program Corridor, the dominant vegetation communities or land cover types are urban (9,529.88 acres), desert scrub (7,112.92 acres), annual grassland (1,513.91 acres), and cropland/orchard/vineyard (1,886.18 acres), which equals approximately 93 percent of the total area within the Eastern Section of Build Alternative Option 1.

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## Table 3.8-2. Summary of Vegetation Communities (Build Alternative Option 1)

| Vegetation Community | Western Section (acres) | Eastern Section: Non-Station Area (acres) | Eastern Section: Loma Linda Station Area (acres) | Eastern Section: Pass Area Station Area (acres) | Eastern Section: Mid-Valley Station Area (acres) | Eastern Section: Indio Station Area (acres) | Eastern Section: Coachella Station Area (acres) | Total Area of Vegetation Community (acres) |
|---|---|---|---|---|---|---|---|---|
| Alkali desert scrub | — | 4.04 | — | — | — | — | 23.56 | **27.60** |
| Annual grassland | 316.28 | 922.41 | 281.77 | 309.73 | — | — | — | **1,830.19** |
| Barren | 158.46 | 77.28 | 69.20 | — | — | — | — | **304.93** |
| Coastal oak woodland | 35.90 | 3.52 | — | — | — | — | — | **39.41** |
| Coastal scrub | 65.43 | 100.74 | 5.35 | 189.96 | — | — | — | **361.48** |
| Cropland/orchard/vineyard | 30.30 | 504.27 | 182.53 | 78.82 | — | 471.68 | 648.88 | **1,916.48** |
| Desert scrub | — | 3,077.75 | — | 324.54 | 2,947.17 | 752.95 | 10.51 | **7,112.92** |
| Desert wash | — | 10.40 | — | 407.73 | — | — | — | **418.13** |
| Eucalyptus woodland | 13.94 | 24.08 | — | — | — | — | — | **38.02** |
| Freshwater emergent Wetland | 15.14 | 26.20 | — | — | — | — | — | **41.34** |
| Lacustrine | 14.05 | 35.59 | — | — | — | — | — | **49.64** |
| Mixed chaparral | 1.19 | 30.45 | — | 6.57 | — | — | — | **38.20** |
| Montane riparian | 12.33 | 29.60 | — | — | — | — | — | **41.93** |

| Vegetation Community | Western Section (acres) | Eastern Section: Non-Station Area (acres) | Eastern Section: Loma Linda Station Area (acres) | Eastern Section: Pass Area Station Area (acres) | Eastern Section: Mid-Valley Station Area (acres) | Eastern Section: Indio Station Area (acres) | Eastern Section: Coachella Station Area (acres) | Total Area of Vegetation Community (acres) |
|---|---|---|---|---|---|---|---|---|
| Pasture | 5.90 | 49.08 | 70.00 | — | — | — | — | **124.98** |
| Riverine | — | 43.89 | — | 14.18 | — | — | — | **58.08** |
| Urban | 9,379.67 | 1,317.54 | 898.06 | 3,948.19 | 670.08 | 2508.12 | 187.90 | **18,909.55** |
| Valley foothill riparian | 58.53 | 380.37 | — | 5.72 | — | — | — | **444.63** |

Source: Appendix G of this Tier 1/Program EIS/EIR

### *Build Alternative Option 2 (Indio Terminus)*

Table 3.8-3 summarizes vegetation communities or land cover types within the Program Corridor under Build Alternative Option 2. As indicated in Table 3.8-3, the dominant vegetation communities or land cover types in the Western Section of the Program Corridor are urban (9,379.67 acres), annual grassland (316.28 acres), and barren (158.46 acres), which equals approximately 98 percent of the total area within the Western Section of Build Alternative Option 2. For the Eastern Section of the Program Corridor, the dominant vegetation communities or land cover types are urban (9,274.01 acres), desert scrub (7,100.51 acres), annual grassland (1,513.91 acres), and cropland/orchard/vineyard (1,116.54 acres), which equals approximately 93 percent of the total area within the Eastern Section of Build Alternative Option 2.

### *Build Alternative Option 3 (Indio Terminus with Limited Third Track)*

As summarized in Table 3.8-3, the types of vegetation communities and land cover types within Build Alternative Option 3 would be the same as those identified for Build Alternative Option 2.

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## Table 3.8-3. Summary of Vegetation Communities (Build Alternative Options 2 and 3)

| Vegetation Community | Western Section (acres) | Eastern Section: Non-Station Area (acres) | Eastern Section: Loma Linda Station Area (acres) | Eastern Section: Pass Area Station Area (acres) | Eastern Section: Mid-Valley Station Area (acres) | Eastern Section: Indio Station Area (acres) | Total Area of Vegetation Community (acres) |
|---|---|---|---|---|---|---|---|
| Alkali desert scrub | — | — | — | — | — | — | **—** |
| Annual grassland | 316.28 | 922.41 | 281.77 | 309.73 | — | — | **1,830.19** |
| Barren | 158.46 | 77.28 | 69.20 | — | — | — | **304.93** |
| Coastal oak woodland | 35.90 | 3.52 | — | — | — | — | **39.41** |
| Coastal scrub | 65.43 | 100.74 | 5.35 | 189.96 | — | — | **361.48** |
| Cropland/orchard/vineyard | 30.30 | 383.51 | 182.53 | 78.82 | — | 471.68 | **1,146.84** |
| Desert scrub | — | 3,075.85 | — | 324.54 | 2,947.17 | 752.95 | **7,100.51** |
| Desert wash | — | 10.40 | — | 407.73 | — | — | **418.13** |
| Eucalyptus woodland | 13.94 | 24.08 | — | — | — | — | **38.02** |
| Freshwater emergent wetland | 15.14 | 26.20 | — | — | — | — | **41.34** |
| Lacustrine | 14.05 | 35.59 | — | — | — | — | **49.64** |
| Mixed chaparral | 1.19 | 30.45 | — | 6.57 | — | — | **38.20** |
| Montane riparian | 12.33 | 29.60 | — | — | — | — | **41.93** |

| Vegetation Community | Western Section (acres) | Eastern Section: Non-Station Area (acres) | Eastern Section: Loma Linda Station Area (acres) | Eastern Section: Pass Area Station Area (acres) | Eastern Section: Mid-Valley Station Area (acres) | Eastern Section: Indio Station Area (acres) | Total Area of Vegetation Community (acres) |
|---|---|---|---|---|---|---|---|
| Pasture | 5.90 | 49.08 | 70.00 | — | — | — | **124.98** |
| Riverine | — | 43.89 | — | 14.18 | — | — | **58.08** |
| Urban | 9,379.67 | 1,249.55 | 898.06 | 3,948.19 | 670.08 | 2,508.12 | **18,653.68** |
| Valley foothill riparian | 58.53 | 380.37 | — | 5.72 | — | — | **444.63** |

Source: Appendix G of this Tier 1/Program EIS/EIR

## Sensitive Natural Communities

Sensitive natural communities represent rare vegetation types or have limited distribution statewide or within a county or region. These communities include riparian areas that are jurisdictional to CDFW under Section 1600 of the California Fish and Game Code, and they are often vulnerable to the environmental effects of projects. A list of sensitive natural communities in California is maintained by CDFW in the Vegetation Classification and Mapping Program—Natural Communities List. Table 3.8-4 lists the sensitive natural communities with potential to occur within the Tier 1/Program EIS/EIR Study Area. A description of each of these communities is provided in Appendix G of this Tier 1/Program EIS/EIR. Mapping of sensitive natural communities requires a field assessment of the dominant plant species within each vegetation community type. Therefore, the potential presence of sensitive natural communities in the Tier 1/Program EIS/EIR Study Area was assessed based on the broader vegetation community categories for which mapping exists.

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## Table 3.8-4. Sensitive Natural Communities with Potential to Occur within the Tier 1/Program EIS/EIR Study Area

| Sensitive Natural Community (Alliance)[a] | State Rarity Rank[b] | Vegetation Community | Western Section | Eastern Section: Non-Station Area | Eastern Section: Loma Linda Station Area | Eastern Section: Pass Area Station Area | Eastern Section: Mid-Valley Station Area | Eastern Section: Indio Station Area | Eastern Section: Coachella Station Area |
|---|---|---|---|---|---|---|---|---|---|
| *Juglans californica* Woodland Alliance<br>California walnut woodland | S3 | Valley foothill riparian, coastal sage, mixed chaparral | P | P | P | P | — | — | — |
| *Lepidospartum squamatum* Shrubland Alliance<br>Scalebroom scrub | S3 | Desert wash | — | P | — | P | — | — | — |
| *Platanus racemosa* Woodland Alliance<br>California sycamore woodland | S3 | Valley foothill riparian | P | P | — | P | — | — | — |
| *Populus fremontii* Forest Alliance<br>Fremont cottonwood forest | S3 | Valley foothill riparian | P | P | — | P | — | — | — |

| Sensitive Natural Community (Alliance)[a] | State Rarity Rank[b] | Vegetation Community | Western Section | Eastern Section: Non-Station Area | Eastern Section: Loma Linda Station Area | Eastern Section: Pass Area Station Area | Eastern Section: Mid-Valley Station Area | Eastern Section: Indio Station Area | Eastern Section: Coachella Station Area |
|---|---|---|---|---|---|---|---|---|---|
| *Salix gooddingii* Woodland Alliance<br>Black willow thickets | S3 | Valley foothill riparian | P | P | — | P | — | — | — |

Notes:

[a] Alliances names follow *A Manual of California Vegetation* (Sawyer et al. 2009).

[b] Rarity ranks are taken from *A Manual of California Vegetation* (Sawyer et al. 2009). Ranks of S1, S2, and S3 are considered rare and threatened statewide (Sawyer et al. 2009, p. 46) and of special concern by CDFW.

CDFW=California Department of Fish and Wildlife; P=potential to occur

### *Build Alternative Option 1 (Coachella Terminus)*

As summarized in Table 3.8-3, five sensitive natural communities have the potential to occur within the Tier 1/Program EIS/EIR Study Area under Build Alternative Option 1. These sensitive natural communities include California walnut woodland, scalebroom scrub, California sycamore woodland, Fremont cottonwood forest, and black willow thickets. All have state rarity ranks of S3, which indicates that they are "vulnerable and at moderate risk of extinction or elimination due to a restricted range, relatively few populations or occurrences, recent and widespread declines, or other factors." These sensitive natural communities have the potential to occur in valley foothill riparian, coastal scrub, mixed chaparral, and desert wash habitats, respectively. Within the Western Section, California walnut woodland, California sycamore woodland, Fremont cottonwood forest, and black willow thickets have the potential to occur based on the vegetation community present. Within the Eastern Section, specifically the non-station areas and the Pass Area Station Area, all five sensitive natural communities have the potential to occur. Within the Loma Linda Station Area, California walnut woodland has the potential to occur. Within the Mid-Valley Station Area, Indio Station Area, and Coachella Station Area, none of the five sensitive natural communities have the potential to occur based on the vegetation community present.

### *Build Alternative Option 2 (Indio Terminus)*

Sensitive natural communities within Build Alternative Option 2 are the same as Build Alternative Option 1.

### *Build Alternative Option 3 (Indio Terminus with Limited Third Track)*

Sensitive natural communities within Build Alternative Option 3 are the same as Build Alternative Option 1.

## Special-Status Plant Species

Federal and state regulations protect imperiled plant species and facilitate the recovery of such species and the ecosystems upon which they depend. Federal and state regulations also provide guidance on how a species is listed and designations (endangered, threatened, etc.) of a species' sensitivity.

Table 3.8-5 lists the special-status plant species with the potential to occur within the Tier 1/Program EIS/EIR Study Area. Figure 3.8-2shows the critical habitat for listed special-status plant species located within the Tier 1/Program EIS/EIR Study Area.

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## Table 3.8-5. Special-Status Plant with Potential to Occur within the Tier 1/Program EIS/EIR Study Area

| Common Name (Scientific Name) | Federal/ State/ CRPR Status[a] | Western Section | Eastern Section: Non-Station Area | Eastern Section: Loma Linda Station Area | Eastern Section: Pass Area Station Area | Eastern Section: Mid-Valley Station Area | Eastern Section: Indio Station Area | Eastern Section: Coachella Station Area |
|---|---|---|---|---|---|---|---|---|
| Abrams' spurge (*Euphorbia abramsiana*) | CRPR 2B.2 | P | P | — | P | P | P | P |
| Brand's star phacelia (*Phacelia stellaris*) | CRPR 1B.1 | P | — | — | — | — | — | — |
| Braunton's milk-vetch (*Astragalus brauntonii*) | FE, CRPR 1B.1 | P | P | — | — | P | P | — |
| Chaparral sand-verbena (*Abronia villosa* var. *aurita*) | CRPR 1B.1 | P | P | P | P | — | — | — |
| Cliff spurge (*Euphorbia misera*) | CRPR 2B.2 | — | P | — | — | — | — | — |
| Coachella Valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*) | FE, CRPR 1B.2 | — | P | — | P | P | P | P |
| Desert spike-moss (*Selaginella eremophila*) | CRPR 2B.2 | — | P | — | — | — | — | — |
| Flat-seeded surge (*Euphorbia platysperma*) | CRPR 1B.2 | — | P | — | — | P | — | — |
| Harwood's eriastrum (*Eriastrum harwoodii*) | CRPR 1B.2 | — | P | — | — | P | — | — |
| Intermediate mariposa lily (*Calochortus weedii* var. *intermedius*) | CRPR 1B.2 | P | — | — | — | — | — | — |

| Common Name (Scientific Name) | Federal/ State/ CRPR Status[a] | Western Section | Eastern Section: Non-Station Area | Eastern Section: Loma Linda Station Area | Eastern Section: Pass Area Station Area | Eastern Section: Mid-Valley Station Area | Eastern Section: Indio Station Area | Eastern Section: Coachella Station Area |
|---|---|---|---|---|---|---|---|---|
| Latimer's woodland-gilia (*Saltugilia latimeri*) | CRPR 1B.2 | — | P | — | P | — | — | — |
| Little San Bernardino Mtns. Linanthus (*Linanthus maculatus* ssp. *maculatus*) | CRPR 1B.2 | — | P | — | — | P | — | — |
| Many-stemmed dudleya (*Dudleya multicaulis*) | CRPR 1B.2 | P | — | — | — | — | — | — |
| Nevin's barberry (*Berberis nevinii*) | FE, SE/CRPR 1B.1 | P | P | P | — | — | — | — |
| Parry's spineflower (*Chorizanthe parryi* var. *parryi*) | CRPR 1B.1 | P | P | P | P | — | — | — |
| Purple stemodia (*Stemodia durantifolia*) | CRPR 2B.1 | — | P | — | — | P | — | — |
| Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*) | FE, SE/CRPR 1B.1 | P | P | — | — | — | — | — |
| Smooth tarplant (*Centromadia pungens* ssp. *laevis*) | CRPR 1B.1 | P | P | — | P | — | — | — |
| Snake cholla (*Cylindropuntia californica* var. *californica*) | CRPR 1B.2 | P | — | — | — | — | — | — |
| Three-ribbed milk-vetch (*Astragalus tricarinatus*) | FE, CRPR 1B.2 | — | P | — | — | P | — | — |

| Common Name (Scientific Name) | Federal/ State/ CRPR Status[a] | Western Section | Eastern Section: Non-Station Area | Eastern Section: Loma Linda Station Area | Eastern Section: Pass Area Station Area | Eastern Section: Mid-Valley Station Area | Eastern Section: Indio Station Area | Eastern Section: Coachella Station Area |
|---|---|---|---|---|---|---|---|---|
| White-bracted spineflower (*Chorizanthe xanti* var. *leucotheca)* | CRPR 1B.2 | — | P | — | P | — | — | — |
| Yucaipa onion (*Allium marvinii*) | CRPR 1B.2 | — | P | — | P | — | — | — |

Notes:

CRPR=California Rare Plant Rank; P=potential to occur

[a] **Federal**

FE=Federally listed as Endangered

FP=Federally listed as Protected

**State**

SE=State listed as Endangered

**CRPR**

1B=Rare or endangered in California and elsewhere

2B=Rare or endangered in California, more common elsewhere

Threat Ranks:

.1=seriously endangered in California

.2=fairly endangered in California

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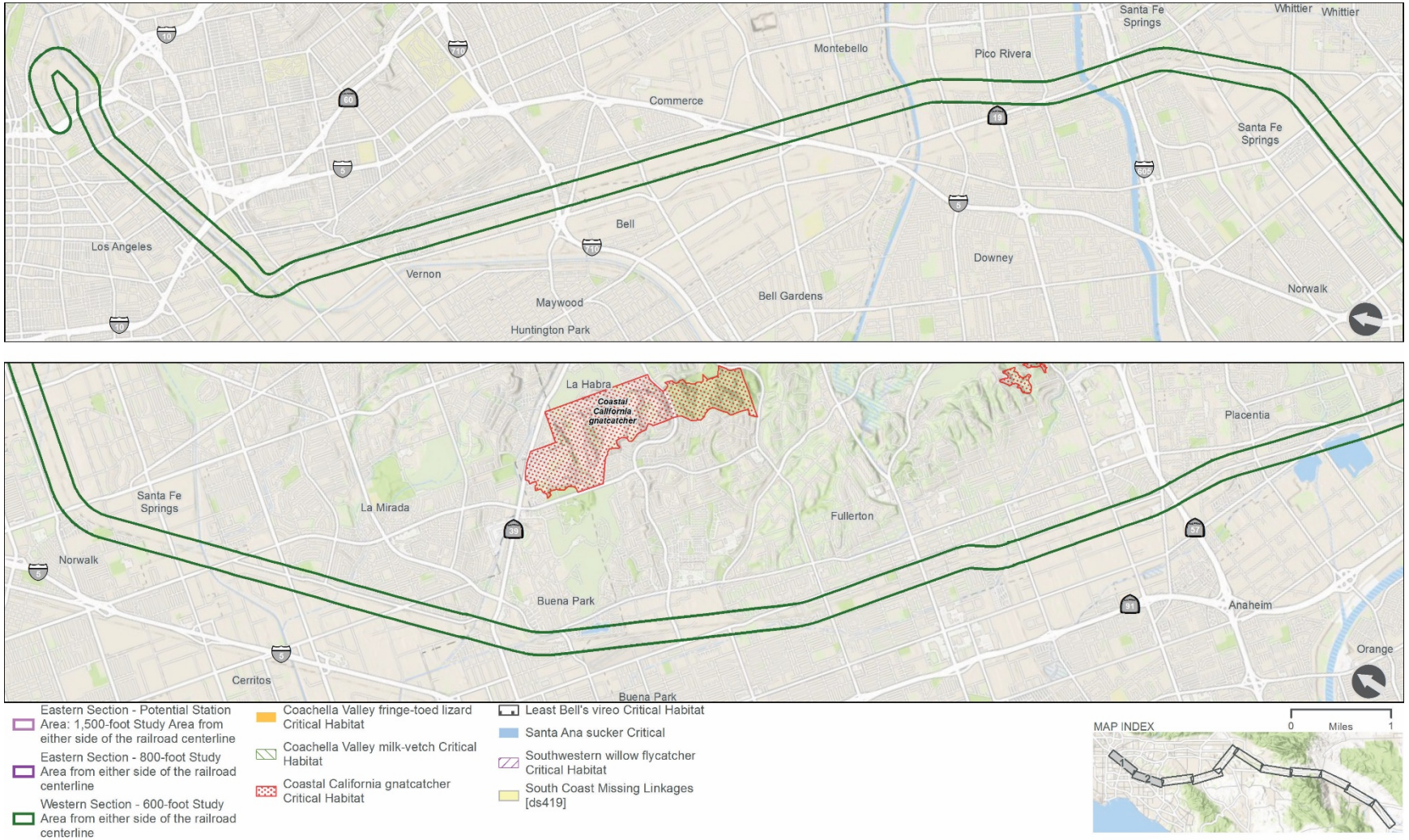
## Figure 3.8-2. Critical Habitat within the Tier 1/Program EIS/EIR Study Area

## (Page 1 of 6)



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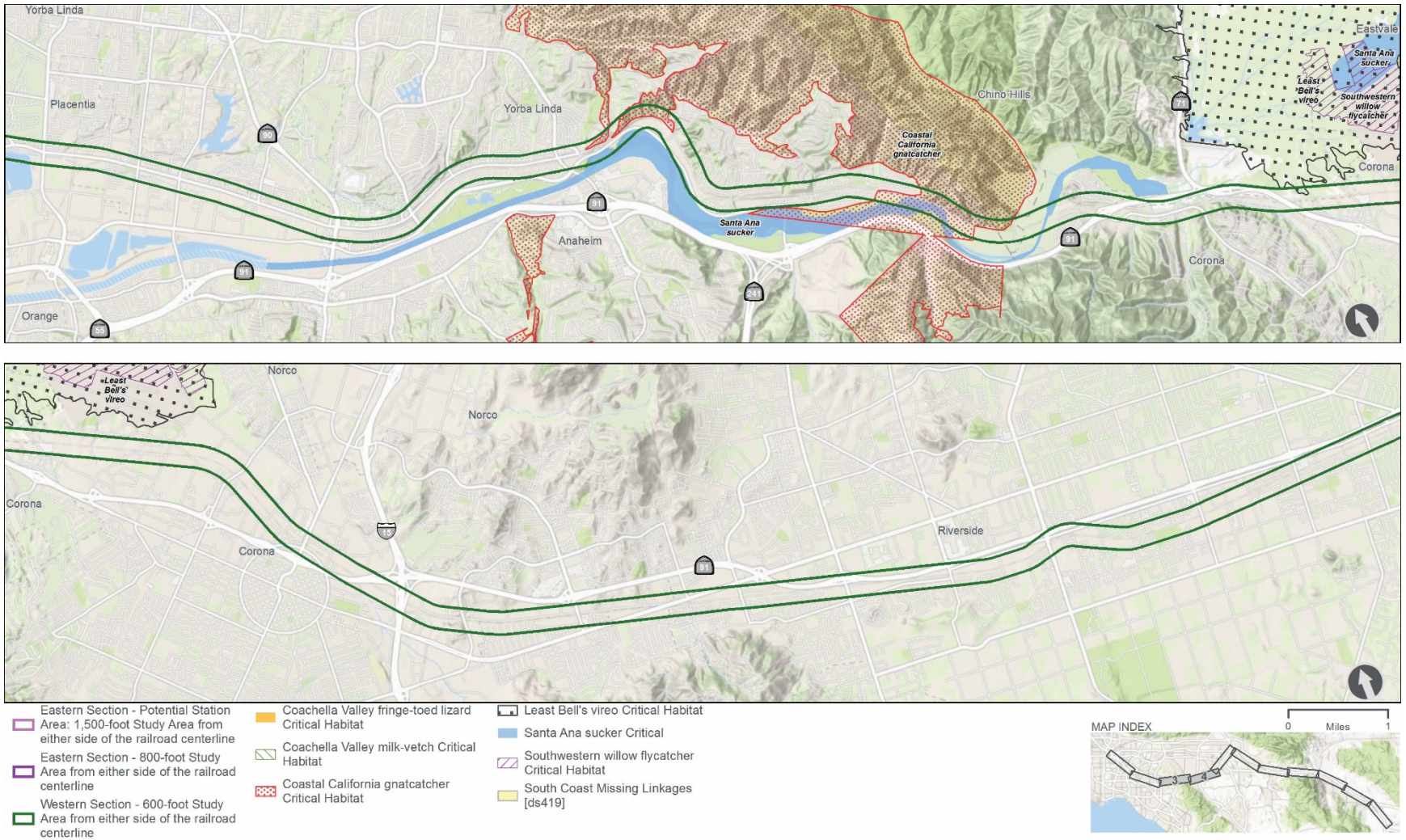
## Figure 3.8-2. Critical Habitat within the Tier 1/Program EIS/EIR Study Area

## (Page 2 of 6)



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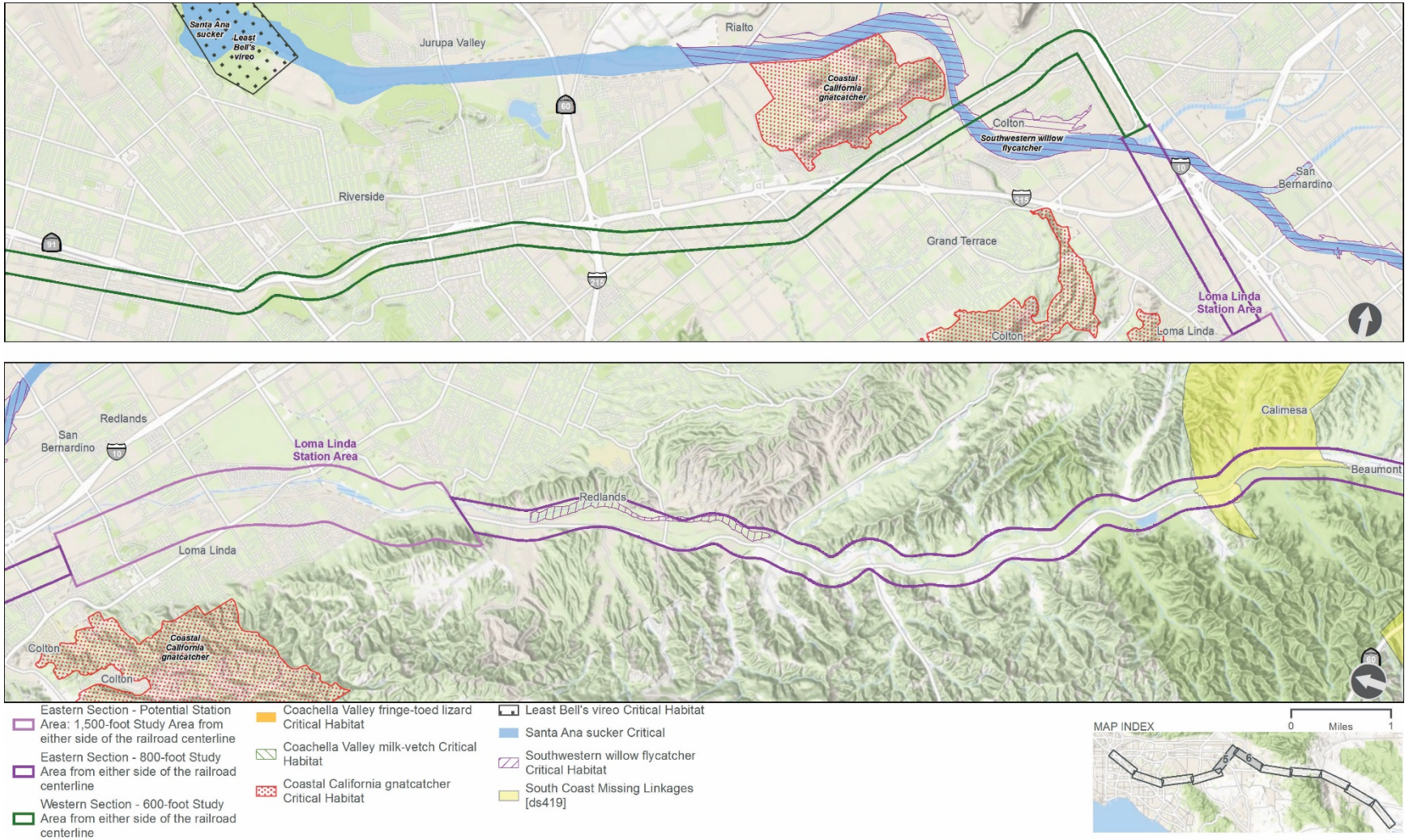
## Figure 3.8-2. Critical Habitat within the Tier 1/Program EIS/EIR Study Area

## (Page 3 of 6)



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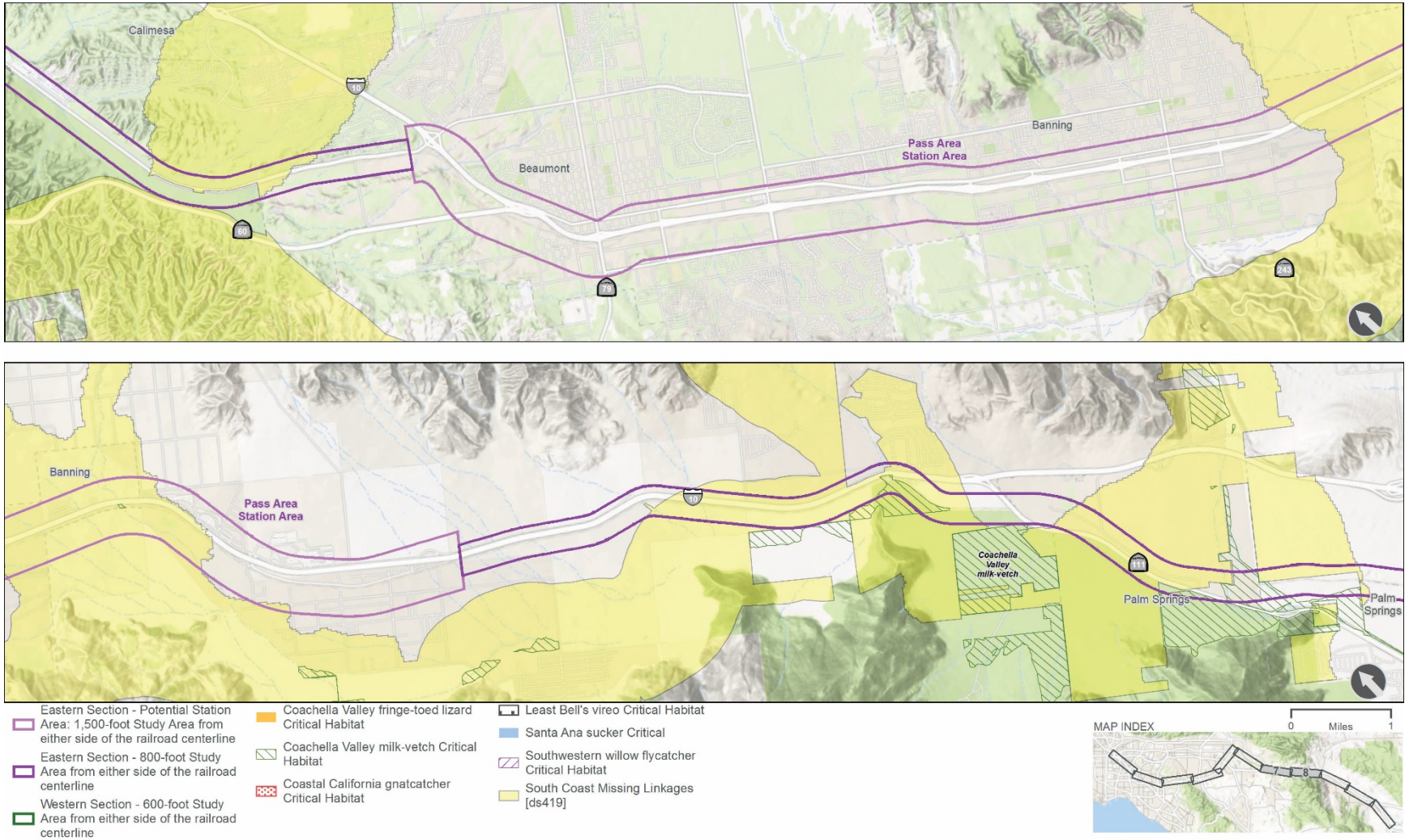
## Figure 3.8-2. Critical Habitat within the Tier 1/Program EIS/EIR Study Area

## (Page 4 of 6)



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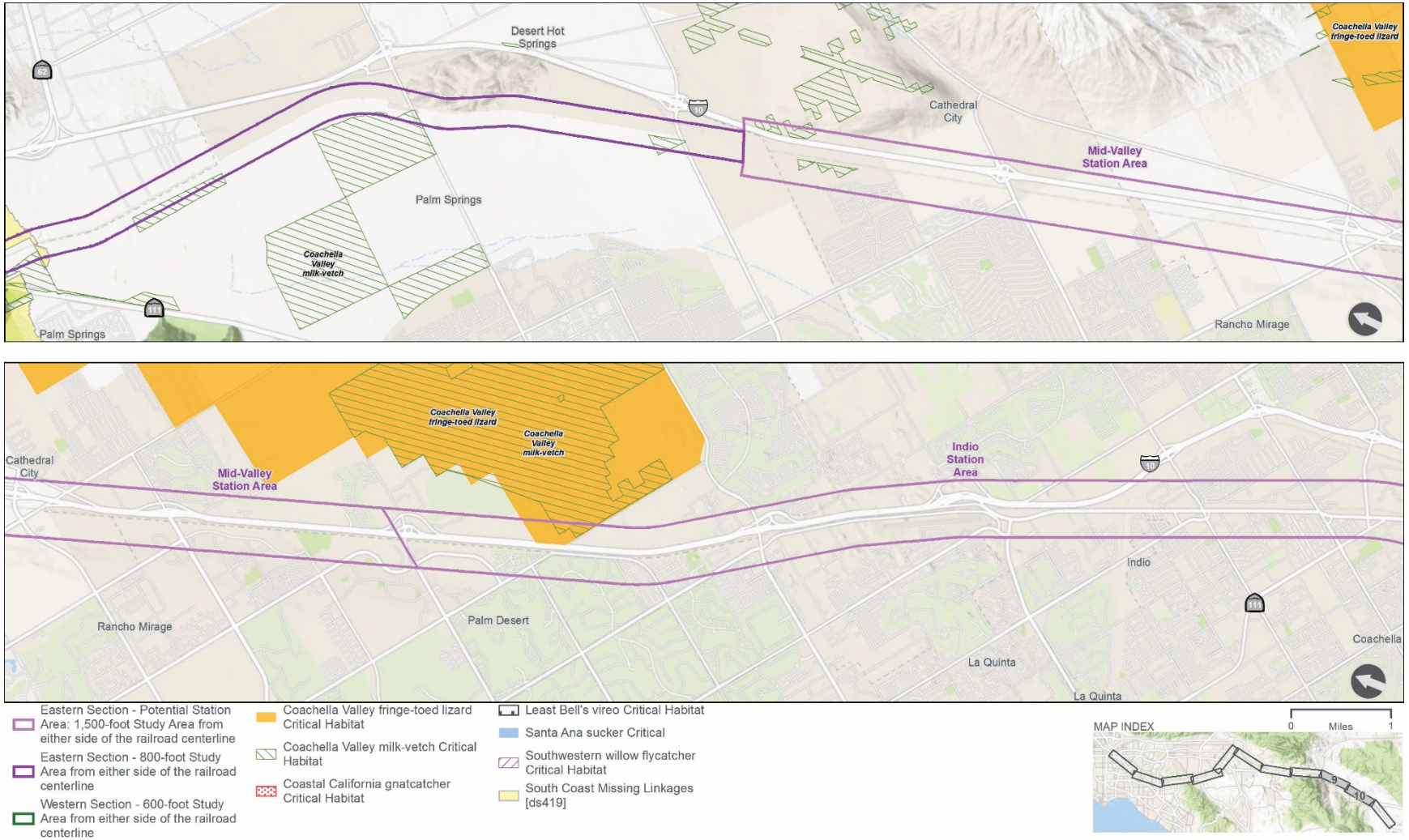
## Figure 3.8-2. Critical Habitat within the Tier 1/Program EIS/EIR Study Area

## (Page 5 of 6)



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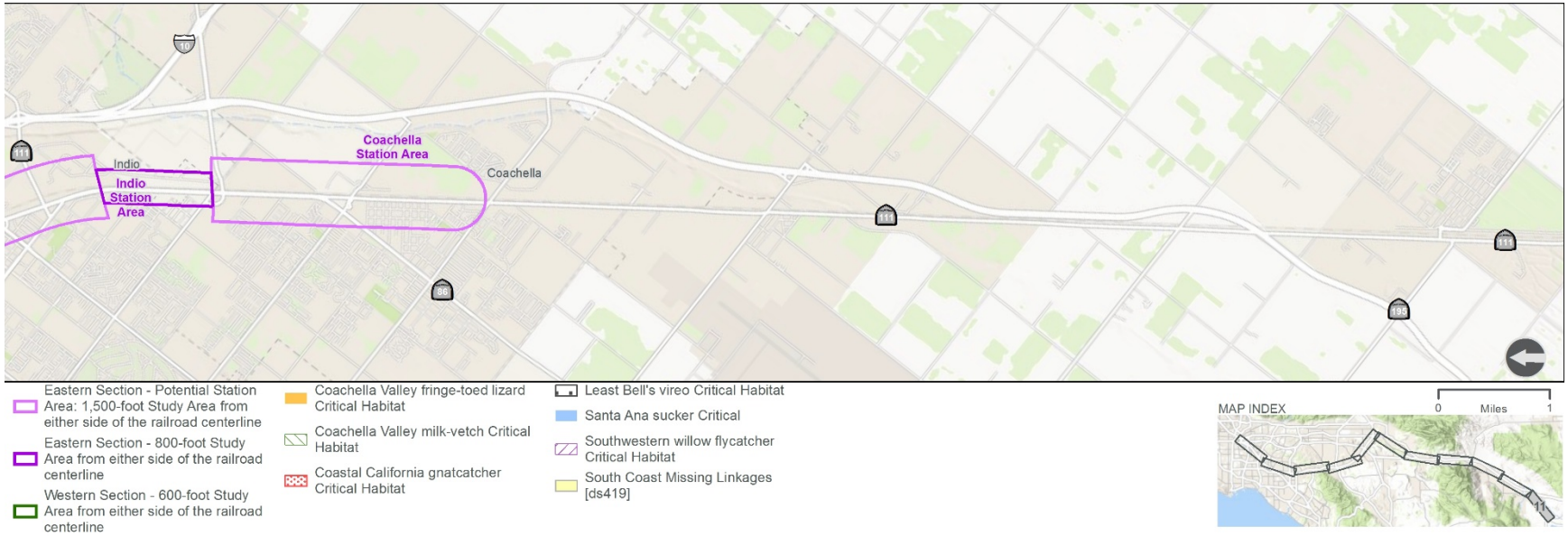
## Figure 3.8-2. Critical Habitat within the Tier 1/Program EIS/EIR Study Area

## (Page 6 of 6)



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### *Build Alternative Option 1 (Coachella Terminus)*

As summarized in Table 3.8-5, 22 special-status plant species have the potential to occur within the Tier 1/Program EIS/EIR Study Area under Build Alternative Option 1. Of these 22 special-status plant species, five special-status plant species (Nevin's barberry, Santa Ana River woollystar, Three-ribbed milk-vetch, Braunton's milk-vetch, and the Coachella Valley milk-vetch) are federally endangered and two special-status plant species (Nevin's barberry and Santa Ana River woollystar) are state endangered. There were no federally or state threatened species identified within the Tier 1/Program EIS/EIR Study Area under Build Alternative Option 1.

Within the Western Section, Nevin's barberry, Santa Ana River woollystar, and Brauton's milk-vetch have the potential to be present. Within the Eastern Section, the following endangered special-status plant species have the potential to be present:

- **Non-Station Areas.** All five federally endangered and two state endangered plant species have the potential to be present. Designated critical habitat for the Coachella Valley milk-vetch is present within the non-station area between the Pass Area Station Area and Mid-Valley Station Area.
- **Loma Linda Station Area.** Nevin's barberry has the potential to be present. No designated critical habitat for special-status plant species is located within the Loma Linda Station Area.
- **Pass Area Station Area.** Coachella Valley milk-vetch has the potential to be present. No designated critical habitat for special-status plant species is located within the Pass Area Station Area.
- **Mid-Valley Station Area.** Braunton's milk-vetch, Coachella Valley milk-vetch, and Three-ribbed milk-vetch have the potential to be present. Designated critical habitat for the Coachella Valley milk-vetch is present within the Mid-Valley Station Area.
- **Indio Station Area.** Braunton's milk-vetch and Coachella Valley milk-vetch have the potential to be present. Designated critical habitat for the Coachella Valley milk-vetch is present within the Indio Station Area.
- **Coachella Station Area.** Coachella Valley milk-vetch has the potential to be present. No designated critical habitat for special-status plant species is located within the Coachella Station Area.

### *Build Alternative Option 2 (Indio Terminus)*

Although Build Alternative Option 2 would not include the Coachella Station Area, which contains the potential for the Coachella Valley milk-vetch to be present, there are other Eastern Section stations that also have the potential for the Coachella Valley milk-vetch to be present. Therefore, special-status plant species with the potential to occur within Build Alternative Option 2 are the same as Build Alternative Option 1.

### *Build Alternative Option 3 (Indio Terminus with Limited Third Track)*

Although Build Alternative Option 3 would not include the Coachella Station Area, which contains the potential for the Coachella Valley milk-vetch to be present, there are other Eastern Section stations that also have the potential for the Coachella Valley milk-vetch to be present. Therefore, special-status plant species with the potential to occur within Build Alternative Option 3 are the same as Build Alternative Option 1.

## Special-Status Wildlife Species

Federal and state regulations protect imperiled wildlife species and facilitate the recovery of such species and the ecosystems upon which they depend. Federal and state regulations also provide guidance on how a species is listed and designations (endangered, threatened, etc.) of a species' sensitivity. Table 3.8-6 lists the special-status wildlife species as having potential to occur within the Tier 1/Program EIS/EIR Study Area. Figure 3.8-2 shows the critical habitat for listed special-status wildlife species located within the Tier 1/Program EIS/EIR Study Area.

## Table 3.8-6. Special-Status Wildlife with Potential to Occur within the Tier 1/Program EIS/EIR Study Area

| Common Name (Scientific Name) | Federal/ State Status[a] | Western Section | Eastern Section: Non-Station Area | Eastern Section: Loma Linda Station Area | Eastern Section: Pass Area Station Area | Eastern Section: Mid-Valley Station Area | Eastern Section: Indio Station Area | Eastern Section: Coachella Station Area |
|---|---|---|---|---|---|---|---|---|
| ***Invertebrates*** | | | | | | | | |
| Delhi Sands flower-loving fly (*Rhaphiomidas terminates abdominalis*) | FE | P | P | — | — | — | — | — |
| Riverside fairy shrimp (*Streptocephalus woottoni*) | FE | P | — | — | — | — | — | — |
| Vernal pool fairy shrimp (*Branchinecta lynchi*) | FT | P | P | — | — | — | — | — |
| ***Fish*** | | | | | | | | |
| Arroyo chub (*Gila orcuttii*) | SSC | P | P | — | — | — | — | — |
| Desert pupfish (*Cyprinodon macularius*) | FE, SE | — | P | — | P | — | — | — |
| Santa Ana speckled dace (*Rhinichthys osculus*) | SSC | P | P | — | P | — | — | — |
| Santa Ana sucker (*Catostomus santaanae*) | ST | P | P | — | — | — | — | — |
| ***Amphibians*** | | | | | | | | |
| California red-legged frog (*Rana draytonii*) | FT, SSC | P | P | P | — | — | — | — |

| Common Name (Scientific Name) | Federal/ State Status[a] | Western Section | Eastern Section: Non-Station Area | Eastern Section: Loma Linda Station Area | Eastern Section: Pass Area Station Area | Eastern Section: Mid-Valley Station Area | Eastern Section: Indio Station Area | Eastern Section: Coachella Station Area |
|---|---|---|---|---|---|---|---|---|
| Coast Range newt (*Taricha torosa*) | SSC | P | — | — | — | — | — | — |
| Western spadefoot (*Spea hammondii*) | SSC | P | P | P | — | — | — | — |
| ***Reptiles*** | | | | | | | | |
| California glossy snake (*Arizona elegans occidentalis*) | SSC | P | P | — | P | — | P | — |
| Coachella Valley fringe-toed lizard (*Uma inornata*) | FT, SE | — | P | — | — | P | P | — |
| Coast horned lizard (*Phrynosoma blainvillii*) | SSC | P | P | — | — | P | — | — |
| Coast patched-nosed snake (*Salvadora hexalepis virgultea*) | SSC | P | P | P | P | — | — | — |
| Coastal whiptail (*Aspidoscelis tigris stejnegeri*) | SSC | P | P | P | P | — | — | — |
| Desert tortoise (*Gopherus agasizzii*) | FT, ST | — | P | — | P | P | P | P |
| Flat-tailed horned lizard (*Phrynosoma mcallii*) | SSC | — | P | — | P | P | — | — |
| Red diamond rattlesnake (*Crotalus ruber*) | SSC | P | P | P | P | — | — | — |

| Common Name (Scientific Name) | Federal/ State Status[a] | Western Section | Eastern Section: Non-Station Area | Eastern Section: Loma Linda Station Area | Eastern Section: Pass Area Station Area | Eastern Section: Mid-Valley Station Area | Eastern Section: Indio Station Area | Eastern Section: Coachella Station Area |
|---|---|---|---|---|---|---|---|---|
| San Diego mountain kingsnake (*Lampropeltis zonata pulchr*a) | SSC | P | — | — | — | — | — | — |
| Southern California legless lizard (*Anniella stebbinsi*) | SSC | P | P | P | — | — | — | — |
| Two-striped garter snake (*Thamnophis hammondii*) | SSC | P | P | P | — | — | — | — |
| Western pond turtle (*Emys marmorata*) | SSC | P | P | P | — | — | — | — |
| ***Birds*** | | | | | | | | |
| American peregrine falcon (*Falco peregrinus anatum*) | FP | P | P | P | P | P | P | P |
| Bald eagle (*Haliaeetus leucocephalus*) | Bald and Golden Eagle Protection Act, F Delisted SE/FPS | P | P | — | — | — | — | — |
| Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) | SSC | P | — | — | — | — | — | — |
| Coastal California gnatcatcher (*Polioptila californica californica*) | FT, SSC | P | P | P | — | — | — | — |
| Ferruginous hawk (*Buteo regalis*) | SSC | P | P | P | P | P | P | P |

| Common Name (Scientific Name) | Federal/ State Status[a] | Western Section | Eastern Section: Non-Station Area | Eastern Section: Loma Linda Station Area | Eastern Section: Pass Area Station Area | Eastern Section: Mid-Valley Station Area | Eastern Section: Indio Station Area | Eastern Section: Coachella Station Area |
|---|---|---|---|---|---|---|---|---|
| Golden eagle (*Aquila chrysaetos*) | Bald and Golden Eagle Protection Act FP | P | P | P | — | — | — | — |
| Grasshopper sparrow (*Ammodramus savannarum perpallidus*) | SSC | P | — | — | — | — | — | — |
| Least Bell's vireo (*Vireo bellii pusillus*) | FE, SE | P | P | — | — | — | — | — |
| Least bittern (*Ixobrychus exilis*) | SSC | P | P | — | — | — | — | — |
| Loggerhead shrike (*Lanius ludovicianus*) | SSC | P | P | P | P | P | P | P |
| Long-eared owl (*Asio otus*) | SSC | P | P | — | — | — | — | — |
| Northern harrier (*Circus hudsonius*) | SSC | P | P | P | — | — | — | — |
| Purple martin (*Progne subis*) | SSC | P | P | — | — | — | — | — |
| Southwestern willow flycatcher (*Empidonax trallii extimus*) | FE, SE | P | P | — | — | — | — | — |
| Swainson's hawk (*Buteo swainsoni*) | ST | P | P | P | P | P | P | P |

| Common Name (Scientific Name) | Federal/ State Status[a] | Western Section | Eastern Section: Non-Station Area | Eastern Section: Loma Linda Station Area | Eastern Section: Pass Area Station Area | Eastern Section: Mid-Valley Station Area | Eastern Section: Indio Station Area | Eastern Section: Coachella Station Area |
|---|---|---|---|---|---|---|---|---|
| Tricolored blackbird (*Agelais tricolor*) | ST | P | P | — | — | — | — | — |
| Western burrowing owl (*Athene cunicularia*) | SSC | P | P | P | P | P | P | P |
| Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) | FE, SE | P | — | — | — | — | — | — |
| White-tailed kite (*Elanus leucurus*) | FP | P | P | — | — | — | — | — |
| Yellow rail (*Coturnicops noveboracensis*) | SSC | P | — | — | — | — | — | — |
| Yellow warbler (*Setophaga petechia*) | SSC | P | P | P | — | — | — | — |
| Yellow-breasted chat (*Icteria virens*) | SSC | P | P | — | — | — | — | — |
| ***Mammals*** | | | | | | | | |
| American badger (*Taxidea taxus*) | SSC | P | P | P | P | P | P | P |
| Big free-tailed bat (*Nyctinomops macrotis*) | SSC | — | P | — | P | — | — | — |
| Desert bighorn sheep (*Ovis canadensis nelsoni*) | FP | — | P | — | P | — | — | — |

| Common Name (Scientific Name) | Federal/ State Status[a] | Western Section | Eastern Section: Non-Station Area | Eastern Section: Loma Linda Station Area | Eastern Section: Pass Area Station Area | Eastern Section: Mid-Valley Station Area | Eastern Section: Indio Station Area | Eastern Section: Coachella Station Area |
|---|---|---|---|---|---|---|---|---|
| Dulzura pocket mouse (*Chaetodipus californicus femoralis)* | SSC | P | P | — | — | — | — | — |
| Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) | SSC | P | P | — | — | — | — | — |
| Mexican long-tongued bat (*Choeronycteris mexicana*) | SSC | — | P | — | P | — | — | — |
| Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax)* | SSC | P | P | — | P | P | P | P |
| Pallid bat (*Antrozous pallidus*) | SSC | P | P | P | — | — | — | — |
| Pallid San Diego pocket mouse (*Chaetodipus fallax pallidus)* | SSC | P | P | — | P | P | P | P |
| Palm Springs pocket mouse (*Perognathus longimembris bangsi*) | SSC | — | P | — | P | P | — | — |
| Palm Springs round-tailed ground squirrel (*Xerospermophilus tereticaudu chlorus*) | SSC | — | P | — | P | P | — | — |
| Peninsular bighorn sheep (*Ovis canadensis nelsoni* pop. 2*)* | FE, ST/FPS | — | P | — | P | — | — | — |

| Common Name (Scientific Name) | Federal/ State Status[a] | Western Section | Eastern Section: Non-Station Area | Eastern Section: Loma Linda Station Area | Eastern Section: Pass Area Station Area | Eastern Section: Mid-Valley Station Area | Eastern Section: Indio Station Area | Eastern Section: Coachella Station Area |
|---|---|---|---|---|---|---|---|---|
| Pocketed free-tailed bat (*Nyctinomops femorosaccus*) | SSC | — | P | — | P | — | — | — |
| San Bernardino kangaroo rat (*Dipodomys merriami parvus*) | FE, SSC | P | P | — | — | — | — | — |
| San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) | SSC | P | P | P | P | P | P | P |
| San Diego desert woodrat (*Neotoma lepida intermedia*) | SSC | P | P | — | P | P | P | P |
| Southern grasshopper mouse (*Onychomys torridus ramona*) | SSC | P | P | — | P | P | P | P |
| Stephen's kangaroo rat (*Dipodomys stephensi*) | FE, ST | P | P | — | P | — | — | — |
| Townsend's big-eared bat (*Corynorhinus townsendii)* | SSC | — | P | — | P | — | — | — |
| Western mastiff bat (*Eumops perotis californicus*) | SSC | — | P | — | P | — | — | — |
| Western red bat (*Lasiurus blossevillii*) | SSC | P | P | — | — | — | — | — |

| Common Name (Scientific Name) | Federal/ State Status[a] | Western Section | Eastern Section: Non-Station Area | Eastern Section: Loma Linda Station Area | Eastern Section: Pass Area Station Area | Eastern Section: Mid-Valley Station Area | Eastern Section: Indio Station Area | Eastern Section: Coachella Station Area |
|---|---|---|---|---|---|---|---|---|
| Western yellow bat (*Lasiurus xanthinus*) | SSC | P | P | P | P | P | P | P |

Notes:

P=potential to occur

[a] **Federal**

FE=Federally listed as Endangered

FP=Federally listed as Protected

FT=Federally listed as Threatened

**State**

SE=State listed as Endangered

ST=State Candidate for listing as Threatened

FPS=Fully Protected Species in California

SSC=Species of Special Concern in California

### *Build Alternative Option 1 (Coachella Terminus)*

As summarized in Table 3.8-6, 66 special-status wildlife species have the potential to occur within the Tier 1/Program EIS/EIR Study Area under Build Alternative Option 1. Of these 66 special-status wildlife species, 9 special-status wildlife species (Delhi Sands flower-loving fly, Riverside fairy shrimp, Desert pupfish, Least Bell's vireo, Southwestern willow flycatcher, Western yellow-billed cuckoo, Peninsular bighorn sheep, San Bernardino kangaroo rat, and Stephen's kangaroo rat) are federally endangered and five special-status wildlife species (Vernal pool fairy shrimp, California red-legged frog, Coachella Valley fringe-toed lizard, Desert tortoise, and Coastal California gnatcatcher) are federally threatened. Six special-status wildlife species (Desert pupfish, Coachella Valley fringe-toed lizard, Bald eagle, Least Bell's vireo, Southwestern willow flycatcher, and Western yellow-billed cuckoo) are state endangered and six special-status wildlife species (Santa Ana sucker, Desert tortoise, Swainson's hawk, Tricolored blackbird, Peninsular bighorn sheep, and Stephen's kangaroo rat) are state threatened.

Within the Western Section, the following endangered and threatened special-status wildlife species have the potential to be present:

- Delhi Sands flower-loving fly
- Riverside fairy shrimp
- Vernal pool fairy shrimp
- Santa Ana sucker
- California red-legged frog
- Bald eagle
- Coastal California gnatcatcher
- Least Bell's vireo
- Southwestern willow flycatcher
- Swainson's hawk
- Tricolored blackbird
- Western yellow-billed cuckoo
- San Bernardino kangaroo rat
- Stephen's kangaroo rat

The Western Section also crosses through designated critical habitat for Santa Ana sucker, Coastal California gnatcatcher, and Southwestern willow flycatcher.

Within the Eastern Section, the endangered and threatened special-status wildlife species have the potential to be present within the following areas:

- **Non-Station Areas:** Delhi Sands flower-loving fly, Vernal pool fairy shrimp, Desert pupfish, Santa Ana sucker, California red-legged frog, Coachella Valley fringe-toed lizard, Desert tortoise, Bald eagle, Coastal California gnatcatcher, Least Bell's vireo, Southwestern willow flycatcher, Swainson's hawk, Tricolored blackbird, Peninsular bighorn sheep, San Bernardino kangaroo rat, and Stephen's kangaroo rat have the potential to be present. Designated critical habitat for the Southwestern willow flycatcher is present within the non-station area between the Loma Linda Station Area and Pass Area Station Area.
- **Loma Linda Station Area:** California red-legged frog, Coastal California gnatcatcher, and Swainson's hawk have the potential to be present. No designated critical habitat for special-status wildlife species is located within the Loma Linda Station Area.
- **Pass Area Station Area:** Desert pupfish, Desert tortoise, Swainson's hawk, Peninsular bighorn sheep, and Stephen's kangaroo rat have the potential to be present. No designated critical habitat for special-status wildlife species is located within the Pass Area Station Area.
- **Mid-Valley Station Area:** Coachella Valley fringe-toed lizard, Desert tortoise, and Swainson's hawk have the potential to be present. No designated critical habitat for special-status wildlife species is located within the Mid-Valley Station Area.
- **Indio Station Area:** Coachella Valley fringe-toed lizard, Desert tortoise, and Swainson's hawk have the potential to be present. Designated critical habitat for the Coachella Valley milk-vetch is present within the Indio Station Area.
- **Coachella Station Area:** Desert tortoise and Swainson's hawk have the potential to be present. No designated critical habitat for special-status wildlife species is located within the Coachella Station Area.

### *Build Alternative Option 2 (Indio Terminus)*

Although Build Alternative Option 2 would not include the Coachella Station Area, which contains the potential for Desert tortoise and Swainson's hawk to be present, there are other Eastern Section stations that also have the potential for these special-status wildlife species to be present. Therefore, special-status wildlife species with the potential to occur within Build Alternative Option 2 are the same as Build Alternative Option 1.

### *Build Alternative Option 3 (Indio Terminus with Limited Third Track)*

Although Build Alternative Option 3 would not include the Coachella Station Area, which contains the potential for Desert tortoise and Swainson's hawk to be present, there are other Eastern Section stations that also have the potential for these special-status wildlife species to be present. Therefore, special-status wildlife species with the potential to occur within Build Alternative Option 3 are the same as Build Alternative Option 1.

## Wildlife Movement Corridors

Wildlife movement corridors are linear features connecting large patches of natural open space and provide for animal dispersal or migration, as well as plant dispersal. Movement is essential to wildlife survival, whether it is daily movements to find food, water, and shelter or seasonal migration to find favorable seasonal conditions and mates. Movement is also essential for gene flow, recolonizing unoccupied habitat, and species to shift their geographic range in response to climate change. Large mammals—such as mule deer, desert bighorn sheep, coyote, and mountain lion—may range widely across the landscape in search of food and water or following seasonal movement patterns. Drainage channels are often used as corridors for wildlife movement, providing both cover and forage. Natural and man-made barriers to wildlife movement may prevent animals from reaching important resources and/or limit the availability of habitats that would otherwise become occupied.

Man-made features such as highways, fences, railroads, and canals found throughout the Tier 1/Program EIS/EIR Study Area may become partial or complete barriers to movement of some wildlife species. Major transportation corridors in the vicinity of the Build Alternative Options include I-10, Highway 111, Highway 79, and the existing railroad track. The effect of highways as barriers to large mammal movements may be attributed to ROW fencing, traffic volume, noise, human presence, and possibly the speed of traffic. Additionally, surrounding land uses may reduce wildlife access to traditional movement corridors. Animal movements may be restricted by areas of sparse vegetation cover, especially in areas of human activity. Though most animals would typically move across the landscape using natural corridors such as washes, some individuals are also likely to cross open roadways and railroads, increasing the potential for vehicle/train-wildlife collisions.

Several planning efforts have been undertaken to address the effects of development on wildlife movement corridors and identify opportunities to preserve and restore habitat connectivity. One of these planning efforts, known as the South Coast Missing Linkages Project, was developed through a collaboration between federal, state, and local partners to identify and conserve the highest-priority wildlife movement linkages in the South Coast Ecoregion, which encompasses portions of the Tier 1/Program EIS/EIR Study Area. This planning effort incorporated advanced planning techniques and the collaboration of experts in biology and conservation design, resulting in the development of a

comprehensive plan. The comprehensive plan identified a regional network that would maintain and restore critical linkages between existing blocks of habitat that are either currently protected or could be protected in the future. Figure 3.8-2 shows where these potential linkages are located in relation to the Tier 1/Program EIS/EIR Study Area.

### *Build Alternative Option 1 (Coachella Terminus)*

There are no identified linkages within the Western Section of the Program Corridor under Build Alternative Option 1. Within the Eastern Section of the Program Corridor under Build Alternative Option 1, the Tier 1/Program EIS/EIR Study Area crosses or bisects through San Bernardino-San Jacinto Connection (generally in the area between the Loma Linda Station Area and Mid-Valley Station Area for approximately 13 miles). The San Bernardino-San Jacinto Connection was identified as a key wildlife movement linkage between the San Bernardino Mountains and the San Jacinto Mountains (Penrod et al. 2005). The linkage design of the San Bernardino-San Jacinto Connection has five routes to accommodate diverse species and ecosystem functions and connect large habitat blocks within the San Bernardino National Forest in the San Bernardino Mountains and the San Jacinto Mountains. Approximately 29 percent of the lands within the linkage are under some form of protection. Much of the unprotected lands within the linkage could be protected through the Western Riverside MSHCP and the Coachella Valley MSHCP, as the Western Riverside County Regional Conservation Authority (for the Western Riverside MSHCP) and the Coachella Valley Association of Governments (for the Coachella Valley MSHCP) continue to acquire lands over the life of each MSHCP to meet the MSHCP objectives. Although there are transportation facilities that pose barriers to wildlife movement in the Tier 1/Program EIS/EIR Study Area, there are several existing structures that accommodate various levels of animal movement within the San Bernardino-San Jacinto Connection. There are several crossing structures where the San Gorgonio River flows under I-10, a series of undercrossings for Stubbe Wash, and a series of undercrossings to accommodate the Whitewater River crossing under I-10.

### *Build Alternative Option 2 (Indio Terminus)*

Wildlife movement corridors within Build Alternative Option 2 are the same as Build Alternative Option 1.

### *Build Alternative Option 3 (Indio Terminus with Limited Third Track)*

Wildlife movement corridors within Build Alternative Option 3 are the same as Build Alternative Option 1.

## 3.8.5 Environmental Consequences

### Overview

Effects as a result of implementing the Build Alternative Options can be broadly classified into construction and operational effects. Long-term or permanent effects and short-term or temporary effects related to biological resources would be anticipated as a result of constructing any of the Build Alternative Options.

Most effects related to biological resources would occur during construction when sensitive plant communities or habitat is disturbed from clearing for construction; placement of permanent structures (e.g., track, stations); staging of equipment; and stockpiling of soil, ballast, or other construction materials. Other short-term construction-related effects on adjacent habitats and corresponding wildlife could be caused by noise, vibration, and air pollutions from construction equipment and activities. Operational effects on biological resources could result in an increased strike risk to wildlife from the additional rail traffic along the rail line. Additionally, construction of new tracks on railbeds elevated above areas crossing floodplains could create barriers to wildlife movement.

### No Build Alternative

The No Build Alternative, as described in Chapter 2, Program Alternatives, is used as the baseline for comparison. The No Build Alternative would not implement the Program of rail improvements associated with this service-level evaluation. Because no physical changes would occur, no effects on biological resources are anticipated beyond those that could occur due to other approved projects.

### Build Alternative Options 1, 2, and 3

#### *Sensitive Vegetation Community Effects*

**CONSTRUCTION**

*Western Section.* The Build Alternative Options would not require construction of additional rail or station infrastructure in the Western Section of the Program Corridor because the existing railroad and stations from LAUS to Colton would be used. When compared with the No Build Alternative, short-term/temporary effects associated with sensitive vegetation communities would be negligible because no additional construction activities are planned within the Western Section under Build Alternative Options 1, 2, and 3.

*Eastern Section.* As summarized in Table 3.8-2 and Table 3.8-3, there are multiple sensitive vegetation communities with the potential to occur within the Eastern Section of the Build Alternative Options. Depending on the location of the rail infrastructure improvements and station facilities, there is the potential for construction activities to affect these sensitive vegetation communities. Effects on sensitive vegetation communities may include:

- Erosion, siltation, and runoff into natural and constructed watercourses
- Soil and water contamination from construction equipment leaks
- Construction dust affecting plants by reducing their photosynthetic capability (especially during flowering periods)
- Altered hydrology that could change the wetland functions of aquatic habitats
- Changes in surface water resources potentially resulting from changes in groundwater flow
- Increased risk of fire (e.g., construction equipment use and smoking by construction workers) in adjacent open spaces
- Habitat degradation through fragmentation and changes in habitat heterogeneity
- Introduction of noxious plant species (non-native, detrimental species) resulting from ground disturbance

If a passenger rail system is constructed and operated within the existing rail ROW, no ROW acquisitions would be required. However, the Tier 1/Program EIS/EIR Study Area allows for infrastructure and station facilities to be located beyond the limits of the existing rail ROW, which would require acquisition of land that may contain sensitive vegetation communities. The properties that would be affected by the future construction and operation of a passenger rail system, and to what extent, cannot be determined at this time. Therefore, this Tier 1/Program EIS/EIR evaluation does not identify the specific effects on sensitive vegetation communities at specific sites because the sites where infrastructure and station improvements would be constructed have not yet been selected.

The Tier 2/Project-level analysis would evaluate site-specific impacts associated with sensitive vegetation communities. When compared with the No Build Alternative, Build Alternative Option 1 could have a substantial effect on sensitive vegetation communities within the Eastern Section of the Program Corridor. When compared with Build Alternative Option 1, Build Alternative Option 2 would have slightly reduced effects due to a shorter route alignment and reduced station options. However, the magnitude of effects would be similar and considered substantial when compared with the No Build Alternative. When compared with Build Alternative Options 1 or 2, Build Alternative Option 3 may have slightly reduced effects due to a smaller footprint associated with a

shorter route alignment, reduced station options, and reduced third track rail infrastructure. However, the magnitude of effects would be similar for Build Alternative Option 3 and would be considered substantial when compared with the No Build Alternative.

#### OPERATION

*Western Section.* Under Build Alternative Options 1, 2, and 3, passenger train frequencies proposed as part of the Program would consist of the addition of two daily round-trip intercity diesel-powered passenger trains operating the entire length of the Program Corridor between Los Angeles and Coachella. During operation, existing maintenance activities that would occur within the ROW along the Western Section route would be in areas where the natural ecosystem has already been disturbed and the Program Corridor is heavily trafficked. Effects associated with the Western Section of Build Alternative Options 1, 2, and 3 on sensitive vegetation communities would be negligible when compared with the No Build Alternative.

*Eastern Section.* Operational effects are anticipated to be limited to maintenance of culverts, bridges, embankments, and station areas under Build Alternative Options 1, 2, and 3. Operation and maintenance activities are unlikely to have effects on sensitive vegetation communities because these activities would occur where the vegetation communities have already been removed or disturbed during construction activities.

Maintenance of rail infrastructure provides additional opportunities for establishment and/or spread of invasive species. Soil erosion, sedimentation, and oil and lubricant runoff from rail infrastructure and station facilities could result in these substances entering adjacent drainage channels and exposing vegetation communities to polluted runoff and chemicals. However, operational maintenance requires vegetation and pest control through a variety of methods, including the application of herbicides and pesticides. Pesticides and herbicides would be applied by certified pesticide applicators in accordance with all requirements of the California Department of Pesticide Regulation and County Agricultural Commissioners. Effects associated with the Eastern Section of Build Alternative Options 1, 2, and 3 on sensitive vegetation communities would be moderate when compared with the No Build Alternative.

### *Special-Status Plant Species Effects*

#### CONSTRUCTION

The Western Section of the Program Corridor under Build Alternative Options 1, 2, and 3 has areas where special-status plant species have the potential to occur. However, the Western Section of the Program Corridor would utilize existing rail infrastructure, and no additional track improvements, station improvements or new stations would be required to accommodate the proposed service.

When compared with the No Build Alternative, short-term/temporary effects on special-status plant species would be considered negligible because no additional construction activities would occur within the Western Section under Build Alternative Options 1, 2, and 3.

*Eastern Section.* The potential for special-status plant species to occur in a habitat is linked to the physical characteristics of the landscape, including elevation, soils, and microhabitat. As summarized in Table 3.8-7, there are multiple special-status plant species with the potential to occur within the Eastern Section of the Build Alternative Options. These special-status plant species each have a specific set of habitat requirements. Depending on where the rail infrastructure improvements and station facilities are located, there is the potential for construction activities to affect these special-status wildlife species. Table 3.8-7 provides the number of special-status plant species with potential to occur within the Eastern Section.

### Table 3.8-7. Number of Special-Status Plant Species with Potential to Occur within the Eastern Section

| Non-Station Area | Loma Linda Station Area | Pass Area Station Area | Mid-Valley Station Area | Indio Station Area | Coachella Station Area |
|---|---|---|---|---|---|
| 18 | 3 | 8 | 8 | 3 | 2 |

Effects on special-status plant species may result from the removal of vegetation for the placement of new permanent rail infrastructure or station facilities within the Eastern Section of the Program Corridor. Additional construction effects may result from construction vehicles and personnel disturbing vegetation (i.e., trampling, covering, and crushing individual plants, populations, or suitable potential habitat for special-status plant species). Other construction effects include clearing, grubbing, covering, undercutting and damaging roots, or unearthing of individual plants. Dust and airborne soil, which may settle on plants, particularly herbs, may inhibit their ability to photosynthesize or reproduce through pollination. Soil compaction and the placement of fill may directly affect special-status plant species by causing decreased fitness or death by root compaction, decreased germination from the seed bank, and/or the plants being covered with soil. Chemical spills have the potential to contaminate the soil and groundwater, resulting in mortality, habitat degradation, or reduced reproductive success of special-status plant species.

If a passenger rail system is constructed and operated within the existing rail ROW, no ROW acquisitions would be required. However, the Tier 1/Program EIS/EIR Study Area allows for infrastructure and station facilities to be located beyond the limits of the existing rail ROW, which would require acquisition of land that may contain suitable habitat that would support special-status plant species. The properties that would be affected by the future construction and operation of a passenger rail system, and to what extent, cannot be determined at this time. Therefore, this Tier

1/Program EIS/EIR evaluation does not identify the specific effects on special-status plant species at specific sites because the sites where infrastructure and station improvements would be constructed have not yet been selected.

The Tier 2/Project-level analysis would evaluate site-specific impacts associated with special-status plant species. When compared with the No Build Alternative, Build Alternative Option 1 could have a substantial effect on special-status plant species within the Eastern Section of the Program Corridor. When compared with Build Alternative Option 1, Build Alternative Option 2 would have slightly reduced effects due to a shorter route alignment and reduced station options. However, the magnitude of effects would be similar and considered substantial when compared with the No Build Alternative. When compared with Build Alternative Options 1 or 2, Build Alternative Option 3 may have slightly reduced effects due to a smaller footprint associated with a shorter route alignment, reduced station options, and reduced third track rail infrastructure. However, the magnitude of effects would be similar for Build Alternative Option 3 and would be considered substantial when compared with the No Build Alternative.

#### OPERATION

*Western Section.* Under Build Alternative Options 1, 2, and 3, passenger train frequencies proposed as part of the Program would consist of the addition of two daily round-trip intercity diesel-powered passenger trains operating the entire length of the Program Corridor between Los Angeles and Coachella. During operation, existing maintenance activities that would occur within the ROW along the Western Section route would be in areas where the natural ecosystem has already been disturbed and the Program Corridor is heavily trafficked. Effects associated with the Western Section of Build Alternative Options 1, 2, and 3 on special-status plant species would be negligible when compared with the No Build Alternative.

*Eastern Section.* Operational effects are anticipated to be limited to maintenance of culverts, bridges, embankments, and station areas under Build Alternative Options 1, 2, and 3. Operation and maintenance activities are unlikely to have effects on special-status plant species because these activities would occur where the vegetation communities (i.e., areas with potential habitat for special-status plant species) has already been removed or disturbed during construction activities.

Maintenance of rail infrastructure provides additional opportunities for establishment and/or spread of invasive species. Soil erosion, sedimentation, oil and lubricant runoff from rail infrastructure and station facilities could result in these substances entering adjacent drainage channels and exposing special-status plant species to chemicals. However, operational maintenance requires vegetation and pest control through a variety of methods, including the application of herbicides and pesticides. Pesticides and herbicides would be applied by certified pesticide applicators in accordance with all requirements of the California Department of Pesticide Regulation and County Agricultural

Commissioners. Effects associated with the Eastern Section of Build Alternative Options 1, 2, and 3 on special-status plant species would be moderate when compared with the No Build Alternative.

### *Special-Status Wildlife Species Effects*

#### CONSTRUCTION

*Western Section.* The Western Section of the Program Corridor under Build Alternative Options 1, 2, and 3 has areas where special-status wildlife species have the potential to occur. However, the Western Section of the Program Corridor would utilize existing rail infrastructure, and no additional track improvements, station improvements, or new stations would be required to accommodate the proposed service. When compared with the No Build Alternative, short-term/temporary effects on special-status wildlife species would be considered negligible because no additional construction activities would occur within the Western Section under Build Alternative Options 1, 2, and 3.

*Eastern Section.* Construction activities associated with development of a passenger rail system, including vegetation removal; ground clearing; placement of fill material for track; new, replaced, or extended culverts and bridges; and station facility development in the Eastern Section could potentially result in disturbance to, and mortality of, special-status wildlife species. Staging areas, access roads, and development of other facilities needed to support construction activities could result in permanent loss of habitat or reduction of habitat values. Disturbance during construction, and later reclamation of such areas, would result in a temporary loss of habitat; although in desert systems, restoration of disturbed areas to previous conditions may take decades.

As summarized in Table 3.8-8, there are multiple special-status wildlife species with the potential to occur within the Eastern Section of the Build Alternative Options. These special-status wildlife species include invertebrates, fish, amphibians, reptiles, birds, and mammals, each with a specific set of habitat requirements. Depending on the location of the rail infrastructure improvements and station facilities, there is the potential for construction activities to affect these special-status wildlife species. Table 3.8-8 provides the number of special-status wildlife species for the Eastern Section.

**Table 3.8-8. Number of Special-Status Wildlife Species with Potential to Occur within the Eastern Section**

| Special-Status Wildlife Species | Non-Station Area | Loma Linda Station Area | Pass Area Station Area | Mid-Valley Station Area | Indio Station Area | Coachella Station Area |
|---|---|---|---|---|---|---|
| Invertebrates | 2 | 0 | 0 | 0 | 0 | 0 |

| Special-Status Wildlife Species | Non-Station Area | Loma Linda Station Area | Pass Area Station Area | Mid-Valley Station Area | Indio Station Area | Coachella Station Area |
|---|---|---|---|---|---|---|
| Fish | 4 | 0 | 2 | 0 | 0 | 0 |
| Amphibians | 2 | 2 | 0 | 0 | 0 | 0 |
| Reptiles | 11 | 6 | 6 | 4 | 3 | 1 |
| Birds | 18 | 9 | 5 | 5 | 5 | 5 |
| Mammals | 22 | 4 | 17 | 9 | 7 | 7 |
| Total | 59 | 21 | 30 | 18 | 15 | 13 |

For special-status aquatic species (invertebrates, fish, amphibians), construction activities may result in aquatic habitats being disturbed, penetrated, filled, polluted, or otherwise destroyed or degraded by construction equipment, siltation, and sedimentation. Construction equipment traveling off road in suitable aquatic habitats could cause erosion, soil compaction, increased siltation, destruction of native vegetation, and alteration of hydrology, which could negatively affect special-status aquatic species through loss of the acreage and quality of suitable habitat.

Construction effects on special-status aquatic species may also consist of physical disturbance, temporary interruptions to fish passage, sedimentation, turbidity, altered water temperatures, oxygen depletion, and contaminants.

Construction of bridges would likely require work below the ordinary high-water mark of water bodies that support, or have the potential to support, special-status aquatic species. Dewatering during construction, if needed, may result in the stranding and mortality of special-status aquatic species. Pile driving in areas when surface water is present could lead to behavioral changes, injury, and possible mortality as a result of vibrations. Changes in sedimentation and nutrient loading caused by soil eroding into occupied habitat related to construction disturbance of channel sediments and adjacent soils may result in habitat degradation or reduced reproductive success. Chemical spills from construction equipment (e.g., fuel, transmission fluid, lubricating oil, and motor oil) could contaminate the water column, resulting in habitat degradation or reduced reproductive success of special-status aquatic species in downstream habitats.

For special-status terrestrial species (invertebrates, reptiles, birds, mammals), construction activities may result in effects on suitable habitat that could cause mortality, injury, or harassment of adults or juveniles. Construction activities may also result in the temporary destruction, degradation, or pollution of habitat and the temporary loss of nesting areas, burrows, or other refugia. Construction

effects also include the permanent conversion of occupied habitat to rail infrastructure improvement or station facility use and fragmentation of habitats and landscapes resulting from construction of the Program. Mortality, injury, or harassment may also occur if these special-status terrestrial species become trapped in open, excavated areas or are stuck by construction vehicles driving on and off roads. Vibration from construction equipment could collapse inhabited burrows located within or in the vicinity of the construction site.

Construction activities requiring soil compaction and the placement of fill in suitable habitat may also affect special-status terrestrial species by prohibiting burrowing or changing the frequency of vegetative cover. Construction activities could result in temporary shifts in foraging patterns or territories and the use of daily or seasonal refugia.

Effects during the construction period may include the permanent or temporary displacement of special-status terrestrial species to avoid disturbance (e.g., noise, vibration, visual stimuli); such displacement could also result from fragmentation of the landscape caused by the construction of Program features (e.g., security fences, elevated structures, railbeds, and associated facilities).

Construction effects on special-status terrestrial species may occur either through direct mortality or habitat modifications if there would be a permanent reduction in the acreage and quality of suitable habitat for these species.

For special-status avian and bat species, construction activities could result in the removal or disturbance of potential nesting habitat, mortality or injury; the permanent conversion of occupied nesting and foraging habitat to rail or station infrastructure; and fragmentation of habitats and landscapes resulting from construction of the Program. If construction occurs during the breeding season for birds (generally February 1 to September 1), active nests could also be disturbed, potentially causing the loss of eggs or developing young (i.e., nest abandonment during the incubation, nestling, or fledgling stages), and noise could cause birds to avoid adjacent suitable nesting habitat.

If construction occurs during the bat maternity season (generally April 15 to August 31), bat roosts could also be disturbed, which could disrupt bat breeding or roosting activity. In addition, increased lighting after sunset could disrupt foraging activities by special-status bat species, causing them to leave an area that has prolonged disturbance. Nocturnal insects are drawn by lighting, which in turn attracts foraging bats. Special-status bats that are attracted to lighted construction areas could have higher potential mortality through disorientation and effects with construction equipment.

If a passenger rail system is constructed and operated within the existing rail ROW, no ROW acquisitions would be required. However, the Tier 1/Program EIS/EIR Study Area allows for infrastructure and station facilities to be located beyond the limits of the existing rail ROW, which would require acquisition of land that may contain suitable habitat that would support special-status

wildlife species. The properties that would be affected by the future construction and operation of a passenger rail system, and to what extent, cannot be determined at this time. Therefore, this Tier 1/Program EIS/EIR evaluation does not identify the specific effects on special-status wildlife species at specific sites because the sites where infrastructure and station improvements would be constructed have not yet been selected.

The Tier 2/Project-level analysis would evaluate site-specific impacts associated with special-status wildlife species. When compared with the No Build Alternative, Build Alternative Option 1 could have a substantial effect on special-status wildlife species within the Eastern Section of the Program Corridor. When compared with Build Alternative Option 1, Build Alternative Option 2 would have slightly reduced effects due to a shorter route alignment and reduced station options. However, the magnitude of effects would be similar and considered substantial when compared with the No Build Alternative. When compared with Build Alternative Option 1 or 2, Build Alternative Option 3 may have slightly reduced effects due to a smaller footprint associated with a shorter route alignment, reduced station options, and reduced third track rail infrastructure. However, the magnitude of effects would be similar for Build Alternative Option 3 and would be considered substantial when compared with the No Build Alternative.

#### OPERATION

*Western Section.* Under Build Alternative Options 1, 2, and 3, passenger train frequencies proposed as part of the Program would consist of the addition of two daily round-trip intercity diesel-powered passenger trains operating the entire length of the Program Corridor between Los Angeles and Coachella. During operation, existing maintenance activities that would occur within the ROW along the Western Section route would be in areas where the natural ecosystem has already been disturbed and the Program Corridor is heavily trafficked. Effects associated with the Western Section of Build Alternative Options 1, 2, and 3 on special-status wildlife species would be negligible when compared with the No Build Alternative.

*Eastern Section.* Operational effects are anticipated to be limited to maintenance of culverts, bridges, embankments, and station areas under Build Alternative Options 1, 2, and 3. The number of structural features, such as culverts, bridges, and switchyards, may influence the frequency and nature of maintenance activities, the removal of vegetation from the ROW, and disturbances due to the presence of maintenance crews and equipment. Soil erosion, sedimentation, oil and lubricant runoff from rail infrastructure and station facilities, and the potential for spills during maintenance activities, could result in these substances entering adjacent drainage channels and exposing wildlife to toxic chemicals.

Efforts during the design phase to avoid sensitive vegetation communities or critical habitat would help to minimize potential operational effects on special-status wildlife species. In addition,

maintenance BMPs would be developed and implemented for future station areas to ensure that maintenance materials such as oils, lubricants, and fuels are handled in an appropriate regulatory manner and kept away from sensitive areas to minimize effects on special-status wildlife species.

Under Build Alternative Options 1, 2, and 3, passenger train frequencies proposed as part of the Program would consist of the addition of two daily round-trip intercity diesel-powered passenger trains operating the entire length of the Program Corridor between Los Angeles and Coachella (Build Alternative Option 1), and Los Angeles to Indio (Build Alternative Options 2 and 3), respectively. The Program Corridor within the Eastern Section generally parallels existing transportation infrastructure, including I-10 and the UP railroad. Freight and passenger trains currently travelling on the existing rail line make approximately 43 trips per day through the Eastern Section between Coachella and Colton with existing train traffic ranging between 30 and 70 miles per hour. Wildlife that may be present in the vicinity of the existing highway and rail lines have been exposed, to some extent, to disturbances associated with railroad operations and highway traffic.

While habituation to transportation noise, such as at airports, highways, and urban centers, is commonly seen in some species and individuals of wildlife, the effect of train noise and associated vibration on wildlife is unclear. The passage of a train may not cause habitat degradation; however, wildlife, especially larger mammals such as bighorn sheep, may have behavioral and physiological responses to this type of disturbance. The magnitude of these effects on wildlife is not always clear and reflects individual animals' experiences and habituation to similar events. Therefore, the diversity of effects that noise may have among and between wildlife species complicates the interpretation of the effect of noise on wildlife as a whole. Some wildlife species that live near active railroad tracks may become accustomed to noise and vibration from trains. Migratory species and species that do not consistently inhabit the rail corridor may be more affected by trains.

Operational/long-term effects associated with the Eastern Section of Build Alternative Options 1, 2, and 3 would have a noticeable and inevitable effect on wildlife; however, the effects could be mitigated by the use of mitigation strategies as described in Section 3.8.8. In addition, regulatory agencies like USFWS and CDFW have rules and guidance that are applied when such resources may be impacted during operation. It is anticipated that regulatory compliance would require avoidance, minimization, or compensatory mitigation that reduce effects on special-status wildlife species. Therefore, operational effects associated with the Eastern Section of Build Alternative Option 1 on special-status wildlife species would be moderate when compared with the No Build Alternative.

When compared with Build Alternative Option 1, implementation of Build Alternative Option 2 could result in fewer effects on special-status wildlife species during operation. This would be attributed to a smaller study area for Build Alternative Option 2. When compared with Build Alternative Option 2, implementation of Build Alternative Option 3 could result in a similar effect on special-status wildlife species during operation.

Overall, as compared with Build Alternative Option 1, implementation of Build Alternative Option 2 could potentially have a lesser effect on special-status wildlife species because Build Alternative Option 2 contains fewer locations of sensitive vegetation communities that could be impacted. However, while the number of special-status wildlife species that could be impacted differs between Build Alternative Option 2 and Build Alternative Option 1, the magnitude of effects would be similar and would be considered moderate when compared with the No Build Alternative. When compared with Build Alternative Options 1 or 2, Build Alternative Option 3 may have slightly reduced effects due to a smaller footprint associated with a shorter route alignment, reduced station options, and reduced third track rail infrastructure. However, the magnitude of effects would be similar for Build Alternative Option 3 and would be considered moderate when compared with the No Build Alternative.

### *Wildlife Movement Corridors Effects*

#### CONSTRUCTION

*Western Section.* The Western Section of the Program Corridor under Build Alternative Options 1, 2, and 3 would utilize existing rail infrastructure, and no additional track improvements, station improvements or new stations would be required to accommodate the proposed service. When compared with the No Build Alternative, short-term/temporary effects on wildlife movement corridors would be considered negligible because no additional construction activities would occur within the Western Section under Build Alternative Options 1, 2, and 3.

*Eastern Section.* Construction of rail infrastructure improvements and station facilities within the Eastern Section under Build Alternative Options 1, 2, and 3 has the potential to result in impediments to the movement of wildlife across the landscape. The existing rail alignment crosses drainages, roadways, and culverts that serve as crossing structures for wildlife movement corridors. Construction activities often deter wildlife from entering construction work areas, and work occurring near existing crossing structures—such as underpasses, overpasses, or culverts—could deter use of those structures by wildlife.

The presence of construction personnel and the operation of construction equipment would result in increased noise, dust, vehicle traffic, and human activity, which could temporarily deter wildlife from using movement corridors that may be located within a specific site. Additionally, the removal of

vegetation in temporary work areas near existing and proposed undercrossings would have temporary effects on wildlife movement for some species by leaving them exposed as they approach the underpasses and potentially deterring them from using the crossings until the vegetation has regenerated. However, effects on wildlife movement corridors would be dependent on the placement of new rail infrastructure (tracks, ballast, embankments, stations, etc.) in relation to existing wildlife movement corridors.

Effects associated with the Eastern Section portion of Build Alternative Option 1 on wildlife movement corridors would be substantial when compared with the No Build Alternative. When compared with Build Alternative Option 1, implementation of Build Alternative Option 2 could result in fewer wildlife movement corridors that could be affected during construction. This would be attributed to a smaller study area for Build Alternative Option 2. When compared with Build Alternative Option 2, implementation of Build Alternative Option 3 could result in a similar effect on wildlife movement corridors during construction.

Overall, as compared with Build Alternative Option 1, implementation of Build Alternative Options 2 and 3 could potentially have a lesser effect on wildlife movement corridors because the study area for Build Alternative Options 2 and 3 contains fewer locations where wildlife movement corridors may be present. However, while the number of wildlife movement corridors may differ between Build Alternative Options 1, 2, and 3, the magnitude of effects would be similar and considered substantial when compared with the No Build Alternative. Site-specific effects would be identified and evaluated during the Tier 2/Project-level analysis once details for the needed rail infrastructure improvements and station facilities are known.

#### OPERATION

*Western Section.* Under Build Alternative Options 1, 2, and 3, passenger train frequencies proposed as part of the Program would consist of the addition of two daily round-trip intercity diesel-powered passenger trains operating the entire length of the Program Corridor. During operation, existing maintenance activities that would occur within the ROW along the Western Section would be in areas where the natural ecosystem has already been disturbed and the Program Corridor is heavily trafficked. Effects associated with the Western Section of Build Alternative Options 1, 2, and 3 on wildlife movement corridors would be negligible when compared with the No Build Alternative.

*Eastern Section.* Operation of any of the Build Alternative Options would include the addition of two daily round-trip intercity passenger trains and operation of various station facilities within the Eastern Section of the Program Corridor. During operation, existing maintenance activities that would occur within the ROW along the Eastern Section would be in areas where the natural ecosystem has already been disturbed. Wildlife present in the vicinity of these existing railroad lines within the

Eastern Section of the Program Corridor have been exposed, to some degree, to disturbances associated with railroad operations and vehicular traffic on the interstates and highways.

Operation of the new stations in the Eastern Section of the Program Corridor would result in increased human activity, including new lighting and noise sources, which may impact the use of adjacent wildlife movement corridors. Though wildlife in the Program Corridor have been habituated to existing noise and vibrations from existing rail and roadway traffic in the Program Corridor, the operation of permanent and stationary noise and lighting sources from stations may interfere with wildlife movement between habitats and result in changes in wildlife behavioral and physiological responses. However, effects on wildlife movement corridors would be dependent on the placement of new rail infrastructure (tracks, ballast, embankments, stations, etc.) in relation to existing wildlife movement corridors.

Effects associated with the Eastern Section portion of Build Alternative Option 1 on wildlife movement corridors would be moderate when compared with the No Build Alternative. When compared with Build Alternative Option 1, implementation of Build Alternative Option 2 could result in fewer wildlife movement corridors that could be affected during operation. This would be attributed to a smaller study area for Build Alternative Option 2. When compared with Build Alternative Option 2, implementation of Build Alternative Option 3 could result in a similar effect on wildlife movement corridors during operation.

Overall, as compared with Build Alternative Option 1, implementation of Build Alternative Options 2 and 3 could potentially have a lesser effect on wildlife movement corridors because the study area for Build Alternative Options 2 and 3 contains fewer locations where wildlife movement corridors may be present. However, while the number of wildlife movement corridors may differ between Build Alternative Options 1, 2, and 3, the magnitude of effects would be similar and considered moderate when compared with the No Build Alternative. Site-specific effects would be identified and evaluated during the Tier 2/Project-level analysis once details for the needed rail infrastructure improvements and station facilities are known.

### 3.8.6 NEPA Summary of Potential Effects

Table 3.8-9 summarizes the qualitative assessment of potential effects (negligible, moderate, or substantial) under NEPA for each of the Build Alternative Options. This service-level evaluation uses the Tier 1/Program EIS/EIR Study Area to determine the types of resources that may be affected and, more importantly, the relative magnitude of resources that may be affected. For habitat resources, the level of intensity is based on volume of habitat potentially affected, and most habitat effects can be mitigated through habitat replacement or habitat mitigation banks. Specific mitigation measures to avoid and minimize effects would be analyzed at the Tier 2/Project-level analysis.

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## Table 3.8-9. NEPA Summary of Effects on Biological Resources

| Alternative Options | Sensitive Vegetation Communities (number of communities) | Critical Habitat (number of species) | Special-Status Plants (number of species) | Special-Status Wildlife (number of species) | Potential Intensity of Effect: Western Section | Potential Intensity of Effect: Eastern Section |
|---|---|---|---|---|---|---|
| No Build Alternative[a] | 0 | 0 | 0 | 0 | Construction: None<br>Operation: None | Construction: None<br>Operation: None |
| Build Alternative Option 1 (Coachella Terminus) | 5 | 6 | 22 | 66 | Construction: Negligible<br>Operation: Negligible | Construction: Substantial<br>Operation: Moderate |
| Build Alternative Option 2 (Indio Terminus) | 5 | 6 | 22 | 66 | Construction: Negligible<br>Operation: Negligible | Construction: Substantial<br>Operation: Moderate |
| Build Alternative Option 3 (Indio Terminus with Limited Third Track) | 5 | 6 | 22 | 66 | Construction: Negligible<br>Operation: Negligible | Construction: Substantial<br>Operation: Moderate |

Notes:

[a] The No Build Alternative includes existing and potential expansion of roadway, passenger rail, and air travel facilities within the Tier 1/Program EIS/EIR Study Area; however, for the service-level evaluation, identifying levels of effect from potential expansion of those facilities is speculative and would be dependent on the Tier 2/Project-level analysis.

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## 3.8.7 CEQA Summary of Potential Impacts

Based on the information provided in Sections 3.8.4 and 3.8.5, and considering the CEQA Guidelines Appendix G Checklist questions for biological resources, the Build Alternative Options are considered to have a potentially significant impact on biological resources when reviewed on a Program-wide basis.

Placing the infrastructure improvements and new stations largely within or along the existing ROW reduces the potential for significant impacts to these resources. However, because the precise sites for rail infrastructure and station facilities have not been selected, some biological resources may be significantly impacted. At the programmatic analysis level, it is not possible to precisely know the location, extent, and characteristics of impacts on these resources. Proposed programmatic mitigation strategies discussed in Section 3.8.8 will be applied to reduce these impacts on biological resources.

Table 3.8-10 summarizes CEQA significance conclusions for the Build Alternative Options; the proposed programmatic mitigation strategies that could be applied to minimize, reduce, or avoid the potential impacts; and the significance determination after mitigation strategies are applied. The identification and implementation of additional site-specific mitigation measures necessary for Project implementation would occur as part of the Tier 2/Project-level analysis.

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## Table 3.8-10. CEQA Summary of Impacts for Biological Resources

| Impact Summary | Mitigation Strategy | Significance with Mitigation Strategy |
|---|---|---|
| ***Would the Program have a substantial adverse effect, either directly or through habitat modifications, including designated critical habitat, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by USFWS or CDFW?*** | | |
| ***Construction*** | | |
| **Western Section – No Impact.** No construction impacts are anticipated at the Tier 1/Program EIS/EIR evaluation level under Build Alternative Option 1, 2, or 3 because no physical improvements are proposed or required within the Western Section. | Not applicable | Not applicable |
| **Eastern Section – Potentially Significant.** Potential impacts on special-status plant and wildlife species depend on the location of infrastructure improvements and station locations, which are currently unknown. Special-status plants and wildlife species and habitat that supports these species, including critical habitat, occur in within Build Alternative Option 1, 2, or 3. Impacts on special-status plant and wildlife species may result from the removal of vegetation or the placement of new permanent infrastructure improvements during construction activities and could result in a potentially significant impact. The Tier 2/Project-level analysis would identify and evaluate construction impacts on special-status plant and wildlife species. | BIO-1<br>BIO-2<br>BIO-3<br>BIO-4<br>BIO-5<br>LU-3 | **Potentially Significant.** BIO-1 through BIO-5 and LU-3 would minimize, reduce, or avoid potential impacts on special-status plant and wildlife species by identifying resources in the Tier 2/Project-level Study Area and measures to minimize impacts on habitat through worker environmental awareness program training, limiting disturbance areas, controlling non-native and invasive species, and replacing or compensating for habitat loss. However, impacts may remain significant and unavoidable as further analysis may determine that there is a conflict that cannot be mitigated. |

| Impact Summary | Mitigation Strategy | Significance with Mitigation Strategy |
|---|---|---|
| ***Operation*** | | |
| **Western Section – No Impact.** The increase in train service (two additional round-trip daily trains within the Program Corridor) would not change existing land use that would result in habitat modifications. No operational impacts are anticipated at the Tier 1/Program EIS/EIR evaluation level under Build Alternative Option 1, 2, or 3. | Not applicable | Not applicable |
| **Eastern Section – Potentially Significant.** Potential impacts on special-status plant and wildlife species depend on the location of infrastructure improvements and station locations, which are currently unknown. Special-status plants and wildlife species and habitat that supports these species, including critical habitat, occur within Build Alternative Options 1, 2, and 3. Impacts on special-status plant and wildlife species may result from operation of new stations and could result in a potentially significant impact. The Tier 2/Project-level analysis would identify and evaluate operational impacts on special-status plant and wildlife species. | BIO-1<br>BIO-2<br>BIO-3<br>BIO-4<br>LU-3 | **Potentially Significant.** BIO-1 through BIO-4 and LU-3 would minimize, reduce, or avoid potential impacts on special-status plant and wildlife species by identifying resources in the Tier 2/Project-level Study Area and measures to minimize impacts on habitat through limiting disturbance areas, controlling non-native and invasive species, and replacing or compensating for habitat loss. However, impacts may remain significant and unavoidable as further analysis may determine that there is a conflict that cannot be mitigated. |
| ***Would the Program have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations by USFWS or CDFW?*** | | |
| ***Construction*** | | |
| **Western Section – No Impact.** No construction impacts are anticipated at the Tier 1/Program EIS/EIR evaluation level under Build Alternative Option 1, 2, or 3 because no physical improvements are proposed or required within the Western Section. | Not applicable | Not applicable |

| Impact Summary | Mitigation Strategy | Significance with Mitigation Strategy |
|---|---|---|
| **Eastern Section – Potentially Significant.** Potential impacts on riparian habitats under Build Alternative Option 1, 2, or 3 depend on the location of infrastructure improvements and station locations, which are currently unknown. Impacts on riparian habitats or sensitive natural communities may result from the removal of vegetation or the placement of new permanent infrastructure improvements during construction and could result in a potentially significant impact. The Tier 2/Project-level analysis would identify and evaluate any impacts on sensitive natural communities during construction. | BIO-1<br>BIO-2<br>BIO-3<br>BIO-4<br>BIO-5<br>LU-3 | **Potentially Significant.** BIO-1 through BIO-5 and LU-3 would minimize, reduce, or avoid potential impacts on special-status plant and wildlife species by identifying resources in the Tier 2/Project-level Study Area and measures to minimize impacts on habitat through worker environmental awareness program training, limiting disturbance areas, controlling non-native and invasive species, and replacing or compensating for habitat loss. However, impacts may remain significant and unavoidable as further analysis may determine that there is a conflict that cannot be mitigated. |
| ***Operation*** | | |
| **Western Section – No Impact.** The increase in train service (two additional round-trip daily trains within the Program Corridor) would not change existing land use that would result in habitat modifications. No operational impacts are anticipated at the Tier 1/Program EIS/EIR evaluation level under Build Alternative Option 1, 2, or 3. | Not applicable | Not applicable |

| Impact Summary | Mitigation Strategy | Significance with Mitigation Strategy |
|---|---|---|
| **Eastern Section – Potentially Significant.** Potential impacts on riparian habitat or sensitive natural communities depend on the location of infrastructure improvements and station locations, which are currently unknown. Riparian habitat or sensitive natural communities occur within Build Alternative Option 1, 2, or 3. Impacts on riparian habitat or sensitive natural communities may result from operation of new stations and could result in a potentially significant impact. The Tier 2/Project-level analysis would identify and evaluate operational impacts on riparian habitat or sensitive natural communities. | BIO-1<br>BIO-2<br>BIO-3<br>BIO-4<br>LU-3 | **Potentially Significant.** BIO-1 through BIO-4 and LU-3 would minimize, reduce, or avoid potential impacts on riparian habitat or sensitive natural communities by identifying resources in the Tier 2/Project-level Study Area and measures to minimize impacts on habitat through limiting disturbance areas, controlling non-native and invasive species, and replacing or compensating for habitat loss. However, impacts may remain significant and unavoidable as further analysis may determine that there is a conflict that cannot be mitigated. |
| ***Would the Program 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?*** | | |
| ***Construction*** | | |
| **Western Section – No Impact.** No construction impacts under are anticipated at the Tier 1/Program EIS/EIR evaluation level under Build Alternative Option 1, 2, or 3 because no physical improvements are proposed or required within the Western Section. | Not applicable | Not applicable |
| **Eastern Section – Potentially Significant.** Potential impacts on wildlife movement corridors depend on the location of infrastructure improvements and station locations, which are currently unknown. Construction activities that may occur in the Eastern Section under Build Alternative Option 1, 2, or 3 may deter wildlife from entering construction work areas and work occurring near existing crossing structures, which would deter use of these structures. The Tier 2/Project-level analysis would identify and evaluate impacts on wildlife movement corridors. | BIO-1 | **Less Than Significant.** BIO-1 would minimize, reduce, or avoid potential impacts on wildlife corridors through design and further analysis. |

| Impact Summary | Mitigation Strategy | Significance with Mitigation Strategy |
|---|---|---|
| ***Operation*** | | |
| **Western Section – No Impact.** The increase in train service (two additional round-trip daily trains within the Program Corridor) would not change existing land use that would result in changes to established wildlife corridor or impede the use of wildlife nursery sites. Therefore, no operational impacts under Build Alternative Option 1, 2, or 3 are anticipated at the Tier 1/Program EIS/EIR evaluation level. | Not applicable | Not applicable |
| **Eastern Section – Potentially Significant.** Potential impacts on wildlife movement corridors depend on the location of infrastructure improvements and station locations, which are currently unknown. Operational activities in the Eastern Section under Build Alternative Option 1, 2, or 3 may deter wildlife from using existing wildlife movement corridor structures or impeding wildlife movement through an increase in human activity within the area. The Tier 2/Project-level analysis would identify and evaluate impacts on wildlife movement corridors. | BIO-1 | **Potentially Significant.** BIO-1 would identify would minimize, reduce, or avoid potential impacts from conflicts with wildlife movement corridors through design and further analysis. However, impacts may remain significant and unavoidable as further analysis may determine that there is a conflict that cannot be mitigated between land uses. |
| ***Would the Program conflict with any local policies or ordinances protecting biological resources, such as a tree-preservation policy or ordinance?*** | | |
| ***Construction*** | | |
| **Western Section – No Impact.** No construction impacts are anticipated at the Tier 1/Program EIS/EIR evaluation level under Build Alternative Option 1, 2, or 3 because no physical improvements are proposed or required within the Western Section. | Not applicable | Not applicable |

| Impact Summary | Mitigation Strategy | Significance with Mitigation Strategy |
|---|---|---|
| **Eastern Section – Potentially Significant.** Potential impacts associated with conflict with local policies protecting biological resources depend on the location of infrastructure improvements, which is currently unknown. The Eastern Section under Build Alternative Options 1, 2, and 3 crosses multiple local jurisdictions that may have biological resources policies that may conflict with construction activities. The Tier 2/Project-level analysis would identify and evaluate impacts related to conflicts with local policies or ordinances protecting biological resources. | BIO-1<br>LU-3 | **Potentially Significant.** BIO-1 and LU-3 would identify would minimize, reduce, or avoid potential impacts from conflicts with plans and policies through design and further analysis. However, impacts may remain significant and unavoidable as further analysis may determine that there is a conflict that cannot be mitigated between land uses. |
| ***Operation*** | | |
| **Western Section – No Impact.** The increase in train service (two additional round-trip daily trains within the Program Corridor) would not change existing land use that would result in conflicts with local policies or ordinances protecting biological resources. Therefore, no operational impacts are anticipated at the Tier 1/Program EIS/EIR evaluation level under Build Alternative Option 1, 2, or 3. | Not applicable | Not applicable |
| **Eastern Section – Potentially Significant.** Potential impacts associated with conflicts associated with local biological resource policies depend on the location of infrastructure improvements, which are currently unknown. The Eastern Section under Build Alternative Options 1, 2, and 3 crosses multiple local jurisdictions that may have biological resources policies that may conflict with operational activities. The Tier 2/Project-level analysis would identify and evaluate impacts related to conflict with the provisions of locally adopted biological resource policies. | BIO-1<br>LU-3 | **Potentially Significant.** BIO-1 and LU-3 would identify would minimize, reduce, or avoid potential impacts from conflicts with plans and policies through design and further analysis. However, impacts may remain significant and unavoidable as further analysis may determine that there is a conflict that cannot be mitigated between land uses. |

| Impact Summary | Mitigation Strategy | Significance with Mitigation Strategy |
|---|---|---|
| ***Would the Program conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan?*** | | |
| ***Construction*** | | |
| **Western Section – No Impact.** No construction impacts are anticipated at the Tier 1/Program EIS/EIR evaluation level under Build Alternative Option 1, 2, or 3 because no physical improvements are proposed or required within the Western Section. | Not applicable | Not applicable |
| **Eastern Section – Potentially Significant.** Potential impacts associated with conflict with an HCP or NCCP depend on the location of infrastructure improvements, which are currently unknown. The Eastern Section under Build Alternative Options 1, 2, and 3 is located within the Coachella Valley MSHCP and Western Riverside County MSHCP. Construction activities may conflict with the provisions of a habitat conservation plan. The Tier 2/Project-level analysis would identify and evaluate impacts related to conflict with the provisions of an adopted HCP or NCCP. | BIO-1<br>LU-3 | **Potentially Significant.** BIO-1 and LU-3 would identify would minimize, reduce, or avoid potential impacts from conflicts with plans and policies through design and further analysis. However, impacts may remain significant and unavoidable as further analysis may determine that there is a conflict that cannot be mitigated between land uses. |
| ***Operation*** | | |
| **Western Section – No Impact.** The increase in train service (two additional round-trip daily trains within the Program Corridor) would not change existing land use that would result in conflicts with adopted habitat conservation plans. Therefore, no operational impacts are anticipated at the Tier 1/Program EIS/EIR evaluation level under Build Alternative Option 1, 2, or 3. | Not applicable | Not applicable |

| Impact Summary | Mitigation Strategy | Significance with Mitigation Strategy |
|---|---|---|
| **Eastern Section – Potentially Significant.** The Eastern Section under Build Alternative Options 1, 2, and 3 is located within the Coachella Valley MSHCP and Western Riverside County MSHCP. Operational activities may conflict with the provisions of a habitat conservation plan; therefore, there is potential for operational impacts. The Tier 2/Project-level analysis would identify and evaluate impacts related to conflict with the provisions of an adopted HCP or NCCP. | BIO-1<br>LU-3 | **Potentially Significant.** BIO-1 and LU-3 would identify would minimize, reduce, or avoid potential impacts from conflicts with plans and policies through design and further analysis. However, impacts may remain significant and unavoidable as further analysis may determine that there is a conflict that cannot be mitigated between land uses. |

Notes:

CDFW=California Department of Fish and Wildlife; EIR=environmental impact report; EIS=environmental impact statement; HCP=Housing and Urban Development Consolidated Plan; MSHCP=Multiple Species Habitat Conservation Plan; NCCP=Natural Communities Conservation Planning; USFWS=United States Fish and Wildlife Service

## 3.8.8 Avoidance, Minimization, and Mitigation Strategies

Identified below are proposed programmatic mitigation strategies for further consideration in the Tier 2/Project-level analysis. Specific mitigation measures, to the extent required, would be identified and discussed during Tier 2/Project-level analysis after design details are known and specific impacts are identified. Examples of programmatic mitigation strategies for biological resources include avoiding effects and impacts, when possible, and minimizing effects and impacts where complete avoidance is not feasible, particularly on protected and sensitive species and their associated habitats, and wildlife movement corridors and linkages. Additionally, mitigation strategies for unavoidable effects and impacts on biological resources could include in-lieu fees and on- or off-site mitigation, such as habitat or vegetation restoration or payment into a conservation bank. Coordination with USFWS and CDFW would occur to develop Tier 2/Project-level mitigation measures during the Tier 2/Project-level analysis after design details are known. Proposed programmatic mitigation strategies, include, but are not limited to, the following:

**Mitigation Strategy BIO-1:** During the Tier 2/Project-level analysis, a preliminary biological resource screening shall be performed as part of the environmental review process to determine whether the specific rail infrastructure or station facility proposed has any potential to impact biological resources. If the specific rail infrastructure or station facility proposed has no potential to impact biological resources, no further action will be required. If the specific rail infrastructure or station facility proposed has the potential to impact biological resources, a qualified biologist shall conduct a biological resources assessment report to document the existing biological resources within the Tier 2/Project-level Study Area. The report shall include, but not be limited to, analysis and recommendations on the following topics:

- Special-status species
- Nesting birds
- Wildlife movement
- Sensitive plant communities and critical habitat
- Jurisdictional waters
- Applicable habitat conservation plans
- Other biological resources identified as sensitive by local, state and/or federal agencies

Pending the results of the biological resources assessment, design alterations; further technical studies (e.g., protocol surveys); and/or consultations with the United States Fish and Wildlife Service, California Department of Fish and Wildlife, and other local, state, and federal agencies may

be required. If the specific rail infrastructure or station facility proposed cannot be designed without complete avoidance, the lead agency shall coordinate with the appropriate resource agency to obtain regulatory permits and implement Project-specific mitigation prior to any construction activities.

**Mitigation Strategy BIO-2:** If completion of the Project-specific biological resources assessment determines that special-status plant species have potential to occur on site, surveys for special-status plants shall be completed prior to any vegetation removal, grubbing, or other construction activity of each project (including staging and mobilization). The surveys shall be floristic in nature and shall be seasonally timed to coincide with the target species identified in the Project-specific biological resources assessment. All plant surveys shall be conducted by a qualified biologist approved by the implementing agency no more than 2 years prior to Project implementation. All special-status plant species identified on site shall be mapped onto a site-specific aerial photograph or topographic map. Surveys shall be conducted in accordance with the most current protocols established by the California Department of Fish and Wildlife and/or the United States Fish and Wildlife Service. A report of the survey results shall be submitted to the implementing agency for review. If special-status plant species are identified, Mitigation Strategy BIO-3 shall apply.

**Mitigation Strategy BIO-3:** If federally or state-listed and/or California Rare Plant Rank 1 and 2 species are found during special-status plant surveys (pursuant to Mitigation Strategy BIO-1), the specific rail infrastructure or station facility proposed shall be redesigned to avoid impacting these plant species where feasible based on coordination with the local jurisdiction and applicable resource agencies. If California Rare Plant Rank 3 and 4 species are found, the biologist shall evaluate to determine if they meet criteria to be considered special status. If so, the same process as identified for California Rare Plant Rank 1 and 2 species shall apply. If special-status plants species cannot be avoided and would be impacted by the specific rail infrastructure or station facility proposed, all impacts shall be mitigated for each species as a component of habitat restoration. A restoration plan shall be prepared and submitted to the lead agency and/or the local jurisdiction overseeing the Project for approval. The restoration plan shall include, at a minimum, the following components:

- Description of the Project/impact site (i.e., location, responsible parties, areas to be impacted by habitat type)
- Goal(s) of the compensatory mitigation project (type(s) and area(s) of habitat to be established, restored, enhanced, and/or preserved; specific functions and values of habitat type(s) to be established, restored, enhanced, and/or preserved)

- Description of the proposed compensatory mitigation site (location and size, ownership status, existing functions and values)
- Implementation plan for the compensatory mitigation site (rationale for expecting implementation success, responsible parties, schedule, site preparation, planting plan)
- Maintenance activities during the monitoring period, including weed removal as appropriate (activities, responsible parties, schedule)
- Monitoring plan for the compensatory mitigation site, including performance standards, target functions and values, target acreages to be established, restored, enhanced, and/or preserved, annual monitoring reports
- Success criteria based on the goals and measurable objectives (said criteria to include numeric criteria to be selected based on the scale of the restoration effort and the restoration technique used)
- An adaptive management program and remedial measures to address any shortcomings in meeting success criteria
- Notification of completion of compensatory mitigation and agency confirmation
- Contingency measures (initiating procedures, alternative locations for contingency compensatory mitigation, funding mechanism)

**Mitigation Strategy BIO-4:** Specific habitat assessment and survey protocol surveys are established for several federally and/or state endangered or threatened species. If the results of the biological resources assessment determine that suitable habitat may be present for any such species, protocol habitat assessments/surveys shall be completed in accordance with the California Department of Fish and Wildlife and/or United States Fish and Wildlife Service protocols prior to issuance of any construction permits/Project approvals. Alternatively, in lieu of conducting protocol surveys, the implementing agency may choose to assume presence within the Project footprint and proceed with development of appropriate avoidance measures, consultation, and permitting, as applicable. If the target species is detected during protocol surveys, or protocol surveys are not conducted and presence assumed based on suitable habitat, additional coordination shall apply.

**Mitigation Strategy BIO-5:** Prior to initiation of construction activities (including staging and mobilization), all personnel associated with Project construction shall attend worker environmental awareness program training, conducted by a qualified biologist, to aid workers in recognizing special-status resources that may occur in the Tier 2/Project-level Study Area. The specifics of this program shall include, but not be limited to, the following:

- Identification of the sensitive species and habitats
- Description of the regulatory status and general ecological characteristics of sensitive resources
- Review of the limits of construction and mitigation measures required to reduce impacts on biological resources within the work area
- Preparation of a fact sheet conveying this information shall for distribution to all contractors, their employers, and other personnel involved with construction of the Project
- Employee documentation associated with worker environmental awareness program attendance and acknowledgment

**Mitigation Strategy LU-3:** During a subsequent Tier 2/Project-level analysis, a land use consistency analysis shall be conducted by the identified lead agency or agencies to determine consistency of the Tier 2/Project-level improvement being proposed with the applicable local jurisdictional general plans or programs. If the land use consistency analysis identifies sensitive land uses or environmental resources within the Tier 2/Project-level Study Area, design or siting strategies shall be identified by the lead agency or agencies to avoid or minimize conflicts with sensitive land uses or environmental resources.