

2.16 Animal Species

2.16.1 Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA Fisheries Service), and the California Department of Fish and Wildlife (CDFW) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.17, Threatened and Endangered Species. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries Service candidate species.

Federal laws and regulations relevant to wildlife include the following:

- Federal Endangered Species Act
- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- California Endangered Species Act
- California Environmental Quality Act
- Sections 1600–1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

“California special animal,” “species of special concern,” and “watch list species” are administrative designations made by the CDFW and carry no formal legal status.

However, Section 15380 of the CEQA Guidelines indicates that these species should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein. “California fully protected species” are legally protected under Section 3511 of the California Fish and Game Code and may not be taken or possessed at any time.

2.16.2 Affected Environment

The information presented in this section was compiled from two technical reports prepared in 2017 and 2018, including the Amended Natural Environment Study (NES) prepared for the SR-133 Safety Improvement Project at El Toro Road (EA 0N0600) and the NES prepared for the SR-133 Widening and Drainage Improvement Project (EA 0Q3600).

2.16.2.1 Literature Review, Records Search, and Field Visits

Literature reviews, records searches, and general and focused wildlife surveys were conducted in 2016 and 2017 to identify the presence or potential occurrence of sensitive or special-status animal species within or in the vicinity of the Biological Study Area (BSA). For special-status animal species, the BSA is defined as the Build Alternative area of direct affects plus a 500-foot (ft) buffer. The literature review and records search area covered the following 7.5-minute United States Geological Survey (USGS) quadrangles: *Dana Point*, *El Toro*, *Laguna Beach*, *Newport Beach*, *San Juan Capistrano*, and *Tustin*. Of the 66 non-listed special-status animal species identified in the literature review, 43 species have suitable habitat present within the BSA, as confirmed during surveys conducted for the project. One non-listed special-status animal species with potentially suitable habitat in the BSA (San Diego ringneck snake [*Diadophis punctatus modestus*]) is considered absent from the BSA because the species is presumed extirpated in the San Joaquin Hills. The remaining 42 non-listed special-status animal species identified in the records searches have suitable habitat present within the BSA and at least a low probability of occurrence within the BSA:

- Monarch butterfly (*Danaus plexippus* [overwintering populations])
- Western spadefoot (*Spea hammondi*)
- Southern California legless lizard (*Anniella stebbinsi*)
- Orange-throated whiptail (*Aspidoscelis hyperythra*)
- Coastal whiptail (*Aspidoscelis tigris stejnegeri*)
- Red-diamond rattlesnake (*Crotalus ruber*)
- San Diego mountain kingsnake (*Lampropeltis zonata pulchra*)
- Coast horned lizard (*Phrynosoma blainvillii*)
- Coast patch-nosed snake (*Salvadora hexalepis virgultea*)
- Two-striped gartersnake (*Thamnophis hammondi*)
- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)
- Grasshopper sparrow (*Ammodramus savannarum*)

- Golden eagle (*Aquila chrysaetos*)
- Bell's sparrow (*Artemisiospiza belli belli*)
- Long-eared owl (*Asio otus*)
- Burrowing owl (*Athene cunicularia*)
- Oak titmouse (*Baeolophus inornatus*)
- Costa's hummingbird (*Calypte costae*)
- White-tailed kite (*Elanus leucurus*)
- California horned lark (*Eremophila alpestris actia*)
- Merlin (*Falco columbarius*)
- American peregrine falcon (*Falco peregrinus anatum*)
- Loggerhead shrike (*Lanius ludovicianus*)
- Oregon vesper sparrow (*Pooecetes gramineus affinis*)
- Lawrence's goldfinch (*Spinus lawrencei*)
- Ring-tailed cat (*Bassariscus astutus*)
- Pallid bat (*Antrozous pallidus*)
- Dulzura kangaroo rat (*Dipodomys simulans*)
- Western red bat (*Lasiurus blossevillii*)
- Hoary bat (*Lasiurus cinereus*)
- Western yellow bat (*Lasiurus xanthinus*)
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)
- Big free-tailed bat (*Nyctinomops macrotis*)
- American badger (*Taxidea taxus*)
- Crotch bumble bee (*Bombus crotchii*)
- Cooper's hawk (*Accipiter cooperii*)
- Northern harrier (*Circus cyaneus*)
- Yellow-breasted chat (*Icteria virens*)
- Yellow warbler (*Setophagia petechia*)
- Western mastiff bat (*Eumops perotis californicus*)
- Yuma myotis (*Myotis yumanensis*)
- San Diego desert woodrat (*Neotoma lepida intermedia*)

Ten of the non-listed special-status species listed above were observed within the BSA during surveys for the project and are discussed below: American peregrine falcon, white-tailed kite, Crotch bumble bee, Cooper's hawk, northern harrier, yellow-breasted chat, yellow warbler, western mastiff bat, Yuma myotis, and San Diego desert woodrat. The following 14 non-listed special-status animal species are

also discussed below because they have at least a moderate probability of occurrence within the BSA: southern California legless lizard, coast horned lizard, coast patch-nosed snake, two-striped garter snake, southern California rufous-crowned sparrow, pallid bat, Dulzura kangaroo rat, hoary bat, western spadefoot, orange-throated whiptail, coastal whiptail, red-diamond rattlesnake, San Diego ringneck snake, and oak titmouse.

The remaining non-listed special-status animal species are not expected to occur within the BSA or have a low probability of occurrence within the BSA because suitable habitats are absent, there are no known occurrences in the vicinity of the BSA, the species were not observed in the BSA during general and focused surveys, and/or the BSA is outside of the known geographic range for the species. Therefore, these species are not discussed further below. The Amended NES prepared for the *SR-133 Safety Improvement Project at El Toro Road* (EA 0N0600) and the NES prepared for the *SR-133 Widening and Drainage Improvement Project* (EA 0Q3600) provide further details regarding the rationale for determinations regarding each species' potential to occur within the BSA.

2.16.2.2 Special-Status Riparian Animal Species

Special-status riparian animal species with the potential to occur in the BSA or are known to occupy habitats within the BSA include oak titmouse, yellow warbler, yellow-breasted chat, and two-striped garter snake. Oak titmouse is a designated California special animal, and yellow warbler, two-striped garter snake, and yellow-breasted chat are designated California species of special concern (refer to Section 2.16.1 for status definitions).

Yellow warbler and yellow-breasted chat were observed in the BSA during surveys for the project. The remaining species listed above were not observed; however, suitable habitats for these species exist within the BSA.

2.16.2.3 Special-Status Grassland and Open Habitat Animal Species

Special-status grassland and open habitat species with the potential to occur in the BSA or are known to occupy habitats within the BSA include white-tailed kite, a California fully protected species (while nesting); coast horned lizard, a California species of special concern; American peregrine falcon, a California fully protected species (while nesting); Crotch bumble bee, a California special animal; northern harrier, a California species of special concern; merlin, a California watch list species;

and Dulzura kangaroo rat, a California species of special concern (refer to Section 2.16.1 for status definitions).

Crotch bumble bee, American peregrine falcon, white-tailed kite, and northern harrier were observed in the BSA. American peregrine falcon, white-tailed kite, and northern harrier observations were of individuals flying over the BSA; no nests of these species were observed within the BSA. The remaining species listed above were not observed; however, suitable habitats for these species exist within the BSA.

2.16.2.4 Special-Status Coastal Sage Scrub and Chaparral Animal Species

Special-status coastal sage scrub (CSS) and chaparral species with the potential to occur in the BSA or are known to occupy habitats within the BSA include southern California legless lizard, a California species of special concern; San Diego ringneck snake, a California special animal; coast patch-nosed snake, a California species of special concern; coastal whiptail, a California species of special concern; orange-throated whiptail, a California special animal; Cooper's hawk, a California special animal; rufous-crowned sparrow, a California special animal; and San Diego desert woodrat, a California species of special concern (refer to Section 2.16.1 for status definitions).

Cooper's hawk and San Diego desert woodrat were observed in the BSA during wildlife surveys. The remaining species listed above were not observed; however, suitable habitat exists within the BSA.

2.16.2.5 Special-Status Multi-Habitat Species

Western spadefoot toad and red-diamond rattlesnake are California species of special concern (refer to Section 2.16.1 for status definitions).

Neither western spadefoot toad nor red-diamond rattlesnake was observed during general biological surveys. Suitable habitat for the western spadefoot toad is present within the BSA, particularly the grassland and woodland areas. Western spadefoot toad is largely terrestrial but requires rain pools or other ponded water that persists at least 3 weeks for breeding. They burrow in loose soils during the dry season. Suitable habitat for the red-diamond rattlesnake is present within the BSA, particularly in coast live oak woodland, annual grassland, eucalyptus woodland, rock outcrops, California sagebrush-California buckwheat scrub, sycamore riparian woodland, or ruderal areas within the BSA. It prefers rocky areas and dense vegetation.

2.16.2.6 Protected Bat Species

Various regulations afford protections to bats, which are classified as indigenous non-game mammal species regardless of their status under both CESA and FESA. These regulations include Title 14, Section 251.1 of the California Code of Regulations, which prohibits harassment (defined in that section as an intentional act that disrupts an animal's normal behavior patterns, including breeding, feeding, or sheltering) of non-game mammals (e.g., bats), and California Fish and Game Code Section 4150, which prohibits "take" or possession of all non-game mammals or parts thereof. Any activities resulting in bat mortality (e.g., the destruction of an occupied bat roost that results in the death of bats), disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), or various modes of non-lethal pursuit or capture may be considered "take" as defined in Section 86 of the California Fish and Game Code by the CDFW.

Bat habitat assessments and maternity season nighttime emergence surveys were conducted in 2016 and 2017 to ascertain whether special-status bat species or bat colonies were present within the BSA. Day-roosting habitat for bats is present in the hinges at the SR-73/SR-133 (Laguna Canyon Road Undercrossing) and associated on-ramps, and bat guano confirming roosting was observed below the hinge at both the northbound SR-133 to northbound SR-73 on-ramp and the southbound SR-133 to southbound SR-73 on-ramp. However, no bats were observed emerging from any of these areas during the nighttime emergence surveys. Potential for the big free-tailed bat (*Nyctinomops macrotis*) to occur was assessed. Although this species could forage over the BSA, no suitable roosting habitat for this species is present in the BSA.

Day-roosting habitat is also present in various rock outcrops and mature trees and snags throughout the BSA. In total, two Yuma myotis (*Myotis yumanensis*) bats were observed emerging from the edge of a rock outcrop (or from an adjacent tree) within the BSA; no other bats were observed exiting from rock outcrops or trees during the emergence surveys.

Night-roosting habitat is present at the Drainage 1 (e.g., Laguna Canyon Creek) triple-pipe culvert beneath the southbound SR-73 off-ramp and the Laguna Canyon Creek single-box culvert beneath SR-133. Bat guano was observed at both structures, confirming use by roosting bats. However, bat roosting was not directly observed at these locations during the survey effort.

Within the southern portion of the BSA, suitable bat roosting habitats surveyed included a rock overhang with old, abandoned cliff swallow nests, several large eucalyptus trees with peeling bark, a large live oak with peeling bark and cavities, and one large palm tree with hanging fronds. No bats were observed emerging from these features during the 2016 emergence surveys.

Foraging activity during the emergence surveys was relatively low despite the presence of high-quality and diverse foraging habitat. In total, five bat species were detected during the 2016 and 2017 surveys: Yuma myotis, big brown bat (*Eptesicus fuscus*), silver-haired bat (*Lasionycteris noctivagans*), western mastiff bat (*Eumops perotis*), and California myotis (*Myotis californicus*). It is likely that bats are somewhat dispersed throughout the open space areas surrounding the BSA for roosting and foraging, and that bat foraging activity may vary within the BSA, with some night roosting periodically occurring. Special-status species that may potentially roost within the BSA include pallid bat (*Antrozous pallidus*), a California species of special concern, and hoary bat (*Lasiurus cinereus*), a California special animal (refer to Section 2.16.1 for status definitions).

2.16.3 Environmental Consequences

2.16.3.1 Temporary Impacts

Alternative 1 (Build Alternative)

Special-Status Riparian Animal Species

Construction of the Build Alternative may result in indirect temporary effects to special-status riparian species associated with construction noise, vibration, and lighting that is anticipated during undergrounding overhead utilities, slope contouring, roadway/shoulder widening, and constructing the proposed drainage improvement features (e.g., culvert modifications, concrete check dam, and articulated block channel). The attraction of predators from food waste or trash could also occur during construction.

Riparian bird species are likely to avoid temporarily affected habitats; as such, direct effects to oak titmouse, yellow warbler, and yellow-breasted chat are not anticipated. There is low potential for direct effects to fledglings from ground disturbance associated with construction activities or habitat modifications, especially if conducted during the avian breeding season. Direct temporary effects to special-status riparian species, such as injury from collisions with construction equipment, as well as indirect temporary effects to active nests of special-status riparian bird species, would be avoided and/or minimized with the implementation of Measures BIO-13

through BIO-15, provided later in this section. Measures BIO-13 through BIO-15 provide for the avoidance of the avian nesting season or pre-construction nesting bird surveys if construction activities are conducted during this period, active nest protection, pre-construction clearance surveys, and proper trash disposal to avoid attracting potential predators of special-status species to the work area.

In addition, the implementation of Measures BIO-1 through BIO-6, provided in Section 2.13, Natural Communities, would avoid and/or minimize temporary effects to non-listed special-status riparian species by (1) designating Environmentally Sensitive Areas (ESAs) that are to be preserved during construction, (2) restoring areas temporarily affected by construction activities, (3) utilizing best management practices (BMPs) to prevent construction runoff from entering jurisdictional waters and adjacent sensitive areas, (4) preventing the spread of invasive species, (5) monitoring construction activities to ensure that practicable measures are being employed to avoid and minimize incidental disturbance to sensitive resources, and (6) training all construction personnel regarding the applicable avoidance and minimization measures. With the implementation of the measures listed above, construction of the Build Alternative would not result in adverse temporary effects to special-status riparian animal species that have the potential to occur within the BSA.

Special-Status Grassland and Open Habitat Animal Species

Construction of the Build Alternative may result in indirect temporary effects to special-status grassland and open habitat species associated with construction noise, vibration, and lighting that is anticipated during undergrounding overhead utilities, slope contouring, roadway/shoulder widening, and constructing the proposed drainage improvement features (e.g., culvert modifications, concrete check dam, and articulated block channel). The attraction of predators from food waste or trash could also occur during construction.

Direct temporary effects are not anticipated for white-tailed kite, peregrine falcon, Crotch bumble bee, northern harrier, and merlin as these species are likely to avoid temporarily affected habitats. Potential direct effects to coast horned lizard and *Dulzura kangaroo rat* may include injury from ground disturbance associated with construction activities or habitat modifications, if present in in the direct disturbance limits during construction. Such temporary direct effects may become permanent if the species is unable to recover from the injury (permanent effects are discussed in Section 2.16.3.2 below). Potential temporary direct and indirect effects on non-listed special-status animal species would be avoided and/or minimized with the

implementation of Measures BIO-1 through BIO-6, provided in Section 2.13, Natural Communities, as well as Measures BIO-13 through BIO-15 (as described above for Riparian Species). With the implementation of the measures listed above, construction of the Build Alternative would not result in adverse temporary effects to special-status grassland and open habitat animal species that have the potential to occur within the BSA.

Special-Status Coastal Sage Scrub and Chaparral Animal Species

Construction of the Build Alternative may result in indirect temporary effects to special-status grassland and open habitat species associated with construction noise, vibration, and lighting that is anticipated during undergrounding overhead utilities, slope contouring, roadway/shoulder widening, and constructing the proposed drainage improvement features (e.g., culvert modifications, concrete check dam, and articulated block channel). The attraction of predators from food waste or trash could also occur during construction.

Direct temporary effects are not anticipated for Cooper's hawk, as avian species are likely to avoid temporarily affected habitats. Potential direct effects to the other non-listed special-status CSS and chaparral species may include injury from ground disturbance associated with construction activities or habitat modifications, if present in the direct disturbance limits during construction. Such temporary direct effects may become permanent if the species is unable to recover from the injury (permanent effects are discussed in Section 2.16.3.2 below).

Potential temporary direct and indirect effects on non-listed special-status animal species would be avoided and/or minimized with the implementation of Measures BIO-1 through BIO-6, provided in Section 2.13, Natural Communities, as well as Measures BIO-13 through BIO-15 (as described above for Riparian Species). With the implementation of the measures listed above, construction of the Build Alternative would not result in adverse temporary effects to special-status CSS and chaparral animal species that have the potential to occur within the BSA.

Special-Status Multi-Habitat Species

Construction of the Build Alternative may result in indirect temporary effects to western spadefoot toad and red-diamond rattlesnake associated with construction noise, vibration, and lighting that is anticipated during undergrounding overhead utilities, slope contouring, roadway/shoulder widening, and constructing the proposed drainage improvement features (e.g., culvert modifications, concrete check dam, and

articulated block channel). The attraction of predators from food waste or trash could also occur during construction.

No direct effects to potentially suitable breeding habitat for western spadefoot toad are anticipated. However, direct temporary effects to these two species could occur in the form of injury during construction, if either species is present in the footprint of the Build Alternative at the time of construction. Such temporary direct effects may become permanent if the species is unable to recover from the injury (permanent effects are discussed in Section 2.16.3.2, below).

Potential temporary direct and indirect effects on western spadefoot toad and red-diamond rattlesnake would be avoided and/or minimized with the implementation of Measures BIO-1 through BIO-6, provided in Section 2.13, Natural Communities, as well as Measures BIO-13 through BIO-15 (as described above for Riparian Species). With the implementation of the measures listed above, construction of the Build Alternative would not result in adverse temporary effects to western spadefoot toad and red-diamond rattlesnake.

Protected Bat Species

Although suitable day-roosting habitat for maternity colonies is present in the SR-73 and SR-133 hinges, there is currently no evidence they are being used by bat maternity colonies. It is possible that these hinges are used for night roosting, or that they are used at other times of the year (e.g., as hibernacula or migration roosts). These structures will not be subject to direct temporary effects.

The rock outcrops and snags suitable for bat roosting are not situated within the footprint of the Build Alternative and would not be subject to direct temporary effects from construction activities. Widening of the Laguna Canyon Creek single-box culvert beneath SR-133 is proposed as part of the Build Alternative. However, since that structure is only suitable for night roosting and does not appear to be extensively used, no direct temporary effects to bats are anticipated.

Temporary indirect disturbance to bat species may include noise, vibration, dust, night lighting, and human encroachment associated with construction activities near suitable tree and crevice roosting habitat, as well as suitable foraging habitat present in the BSA. Implementation of Measures BIO-16 and BIO-17, provided later in this section, would provide for nighttime lighting controls and airspace access to identified suitable roosting habitats. Implementation of Measures BIO-18, BIO-19, and BIO-20, provided later in this section, would provide verification regarding the

level of bat foraging and roosting activity prior to construction, require palm frond trimming, if necessary, to be conducted outside the bat maternity season (i.e., April 15-August 31) to avoid potential harm to flightless young, and provided for CDFW-approved methods to be used if bat maternity sites are identified during pre-construction surveys. With the implementation of the measures listed above, construction of the Build Alternative would not result in adverse temporary effects to protected bat species that have the potential to occur within the BSA.

Alternative 2 (No Build Alternative)

The No Build Alternative would not include construction of any of the improvements proposed in the Build Alternative. Therefore, the No Build Alternative would not result in temporary effects to non-listed special-status animal species. The existing operation of SR-133 would continue under the No Build Alternative.

2.16.3.2 Permanent Impacts

Alternative 1 (Build Alternative)

Special-Status Riparian Species

Riparian bird species are likely to avoid the Build Alternative area of direct effects; as such, direct effects to oak titmouse, yellow warbler, and yellow-breasted chat are not anticipated. However, there is potential for direct effects to fledglings, including mortality from ground disturbance associated with construction activities or habitat modifications, if conducted during the avian breeding season. Direct permanent effects to the two-striped garter snake, if present in the Build Alternative area of direct effects during construction, may include mortality from ground disturbance associated with construction activities or habitat modifications. However, this species would be expected to vacate the area during project construction.

Potential permanent effects on non-listed special-status riparian animal species would be avoided and/or minimized with the implementation of Measures BIO-1 through BIO-6, provided in Section 2.13, Natural Communities, as well as Measures BIO-13 through BIO-15 (as described above for Riparian Species). With the implementation of the measures listed above, construction of the Build Alternative would not result in adverse permanent effects to special-status riparian animal species that have the potential to occur within the BSA.

Special-Status Grassland and Open Habitat Animal Species

The Build Alternative has the potential to directly affect special-status grassland and open habitat animal species due to work proposed within these habitats within the

BSA. Direct permanent effects are not anticipated for white-tailed kite, peregrine falcon, Crotch bumble bee, northern harrier, and merlin as these species are likely to avoid affected habitats during construction. Although these species would be expected to vacate the area during project construction, direct permanent effects to coast horned lizard and Dulzura kangaroo rat may include mortality from ground disturbance associated with construction activities or habitat modifications. With the implementation of Measures BIO-1 through BIO-6, provided in Section 2.13, Natural Communities, as well as Measures BIO-13 through BIO-15 (as described above for Riparian Species), construction of the Build Alternative is not expected to result in permanent adverse effects to special-status grassland and open habitat species that have the potential to occur within the BSA.

Special-Status Coastal Sage Scrub and Chaparral Animal Species

The Build Alternative has the potential to directly affect special-status CSS and chaparral animal species due to work proposed within these habitats within the BSA. Direct permanent effects are not anticipated for Cooper's hawk, as avian species are likely to avoid affected habitats during construction. Although these species would be expected to vacate the area during project construction, potential direct effects to the other non-listed special-status CSS and chaparral species may include mortality from ground disturbance associated with construction activities or habitat modifications. With the implementation of Measures BIO-1 through BIO-6, provided in Section 2.13, Natural Communities, as well as Measures BIO-13 through BIO-15 (as described above for Riparian Species), construction of the Build Alternative is not expected to result in permanent adverse effects to special-status CSS and chaparral animal species that have the potential to occur within the BSA.

Special-Status Multi-Habitat Species

The Build Alternative has the potential to directly affect western spadefoot toad and red-diamond rattlesnake due to work proposed within suitable habitats for these species. Although these species would be expected to vacate the area during project construction, direct permanent effects may include mortality from ground disturbance associated with construction activities or habitat modifications. With the implementation of Measures BIO-1 through BIO-6, provided in Section 2.13, Natural Communities, as well as Measures BIO-13 through BIO-15 (as described above for Riparian Species), construction of the Build Alternative is not expected to result in permanent adverse effects to western spadefoot toad and red-diamond rattlesnake.

Protected Bat Species

Potential direct permanent effects of the Build Alternative on bats include loss of roosting sites, particularly with regard to the removal of existing trees and modification of potentially suitable roosting habitats. Widening of the Laguna Canyon Creek single-box culvert beneath SR-133 is proposed as part of the project. However, since that structure is only suitable for night roosting and does not appear to be extensively used, no direct effects to bats are anticipated for that project component. With the implementation of Measures BIO-16 through BIO-20 (as described above for Protected Bat Species), construction of the Build Alternative is not expected to result in permanent adverse effects to protected bat species.

Alternative 2 (No Build Alternative)

The No Build Alternative would not include construction of any of the improvements proposed in the Build Alternative. Therefore, the No Build Alternative would not result in new permanent effects to non-listed special-status animal species. Ongoing effects on these species present within the BSA associated with the existing operation of SR-133 (e.g., dust, litter, noise, vibration, and lighting) would continue under the No Build Alternative.

2.16.4 Avoidance, Minimization, and/or Mitigation Measures

In addition to Measures BIO-1 through BIO-6, provided in Section 2.13, Natural Communities, the following measures, BIO-13 through BIO-20, would avoid and/or minimize potential effects to non-listed special-status animal species during construction of the Build Alternative.

BIO-13

Avoidance of Breeding Season and Nesting Bird Surveys.

Vegetation clearing will occur outside the nesting season. If vegetation clearing will occur during nesting season (February 1 through September 1), at least 2 weeks prior to the initiation of construction activities during the nesting bird/raptor season, a qualified biologist with experience in conducting breeding bird surveys will conduct weekly bird surveys with the last survey being conducted no more than 3 days prior to the initiation of project activities to detect the presence/absence of migratory and resident bird species occurring in suitable nesting habitat. Should nesting birds be found, an exclusionary buffer will be established by the qualified biologist. This buffer will be clearly marked in the

field by construction personnel under the guidance of the biologist, and construction or clearing will not be conducted in this zone until the biologist determines that the young have fledged or the nest is no longer active. Work may only occur during the breeding season if nesting bird surveys indicate the absence of any active nests within the work area.

- BIO-14** **Pre-Construction Clearance Surveys.** Prior to construction (including vegetation clearing and grubbing), a biologist familiar with regional special-status species will survey areas adjacent to ESA boundaries to flush any wildlife species present.
- BIO-15** **Trash Storage.** Trash will be stored in closed containers so that it is not readily accessible to scavengers and will be removed from the construction site on a daily basis so as not to attract potential special-status species predators.
- BIO-16** **Night Lighting During Construction.** During nighttime construction work, night lighting will be used only in the area actively being worked on and will be focused on the direct area of work.
- BIO-17** **Access to Roost Features.** Airspace access to and from the suitable bat roost features of the Laguna Canyon Creek triple-pipe culvert beneath the southbound State Route 73 (SR-73) off-ramp and the Laguna Canyon Creek single-box culvert beneath the State Route 133 (SR-133) will not be obstructed except in direct work areas. This measure is intended to minimize impacts to suitable bat-roosting habitat during construction. Bat species documented in the BSA include: Yuma myotis (*Myotis yumanensis*), big brown bat (*Eptesicus fuscus*), silver-haired bat (*Lasionycteris noctivagans*), western mastiff bat (*Eumops perotis*), and California myotis (*Myotis californicus*).
- BIO-18** **Preconstruction Daytime Bat Assessment.** During the year prior to the start of project construction, a daytime assessment will be conducted by a qualified bat biologist to reexamine

areas that are suitable for bat use. If bat sign is observed at that time, then preconstruction bat surveys will be conducted to confirm whether the areas with suitable habitat identified during the preliminary assessment are utilized by bats for day roosting and/or night roosting and to ascertain the level of bat foraging and roosting activity at each of these locations. This preconstruction bat assessment is to be conducted during the year prior to construction to allow for preventative measures to be developed, if warranted. If roosting bats or maternity colonies were observed during a prior year survey, an exclusion device will be installed prior to the beginning of construction.

BIO-19

Pre-Clearing Bat Roosting Surveys and Trimming

Restrictions. Prior to tree removal or trimming, large trees and snags should be examined by a qualified bat biologist to ensure that no roosting bats are present. Palm frond trimming, if necessary, should be conducted outside the maternity season (i.e., April 15–August 31) to avoid potential mortality to flightless young.

BIO-20

Bat Maternity Roosting Site Measures. If maternity sites are identified during the preconstruction bat habitat suitability assessment, then no construction activities at that location will be allowed during the maternity season (i.e., April 15–August 31) unless a qualified bat biologist has determined the young have been weaned. The CDFW will be contacted in the event that the preconstruction bat survey documents a maternity colony with the potential to be affected. If maternity sites are present, and it is anticipated that construction activities cannot be completed outside of the maternity season, then Caltrans or its authorized consultant will perform bat eviction and exclusion under the supervision of a qualified bat biologist and in consultation with the CDFW.

This page intentionally left blank