

## E.3.2 Biological Resources

### E.3.2.1 Environmental Setting

The Route D Alternative is located in the South Coast bioregion. This 17-mile alternative would only be used in combination with the I-8 Alternative, diverging north at MP I8-70.3 (MP D-0). The predominant vegetation community is chaparral. Other vegetation communities in this alternative include sage scrub, grasslands, oak riparian forest, oak woodlands, and riparian scrubs. Vegetation communities are described in Section D.2.1.2.2. Detailed vegetation mapping for the Route D Alternative can be found in Appendix 8J. A generalized vegetation map for all of the SWPL Alternatives is presented in Figure E.1.2-1.

Since a formal delineation has not yet been conducted, the precise presence and extent of waters and wetlands at this time is unknown. However, the following vegetation communities that were identified during vegetation mapping along the alternative route are often jurisdictional: disturbed wetland, freshwater, mule fat scrub, southern willow scrub, riparian woodland, southern coast live oak riparian forest, and southern riparian forest.

**Overview of Special Habitat Management Areas.** The majority of the Route D Alternative is located on USDA Forest Service lands, but also crosses County lands that represent components of the regional preserve system. The Route D Alternative would cross USDA Forest Service Inventoried Roadless Areas, the San Diego River Park Foundation's Eagle Peak Preserve, and the USDA Forest Service's Proposed Eagle Peak Wilderness and Proposed San Diego River Research Natural Area. It would occur adjacent to the Viejas Indian Reservation and would pass within 2 miles of the Proposed Viejas Mountain Research Natural Area, Viejas Mountain Critical Biological Area, Designated King Creek Research Natural Area, and King Creek Critical Biological Area.

**Designated Critical Habitat.** The Route D Alternative would cross designated critical habitat for the coastal California gnatcatcher. The Route D Alternative would cross a portion of Critical Habitat Unit 2 (Multiple Habitat Conservation Open Space Program [MHCOSP] for San Diego County) near the upper San Diego River (USFWS, 2000b). Unit 2 was designated to include a core population of gnatcatchers on the Cleveland National Forest south of State Route 78 (upper San Diego River) and important corridors of sage scrub for connectivity (USFWS, 2000b).

**Special Status Plant Species.** No listed plant species were observed along the Route D Alternative in 2007. The following listed (San Diego thorn-mint) and non-listed sensitive (Ramona horkelia and felt-leaved monardella) plants were observed along the Route D Alternative in 2007:

- Ramona horkelia
- Felt-leaved monardella
- San Diego thorn-mint

The following four federal and/or state listed as rare, threatened, or endangered plant species have a moderate to high potential to occur within the vicinity of the Route D Alternative:

- Orcutt's brodiaea
- Dunn's mariposa lily
- Dehesa nolina
- Gander's ragwort

The following 26 non-listed, sensitive plant species have a moderate to high potential to occur within the vicinity of the Route D Alternative:

- San Diego milk-vetch
- Payson's jewel-flower
- Long-spined spineflower
- Delicate clarkia
- Palmer's goldenbush
- Vanishing wild buckwheat
- Sticky geraea
- Mission Canyon bluecup
- San Diego gumplant
- San Diego sunflower
- Robinson's pepper-grass
- Lemon lily
- Parish's meadowfoam
- Orcutt's linanthus
- Hall's monardella
- Baja navarretia
- Chaparral nolina
- San Bernardino bluegrass
- San Miguel savory
- Southern skullcap
- Hammitt's clay-cress
- Laguna Mountains jewel-flower
- Southern jewel-flower
- San Bernardino aster
- Parry's tetracoccus
- Velvety false lupine

**Special Status Wildlife Species.** Two listed wildlife species were observed along the Route D Alternative in 2007:

- Arroyo toad
- Least Bell's vireo

The following sensitive wildlife species were observed along the Route D Alternative in 2007:

- Coast (San Diego) horned lizard
- Cooper's hawk
- Golden eagle
- Grasshopper sparrow
- Prairie falcon
- Purple martin
- Southern California rufous-crowned sparrow
- Yellow warbler
- White-tailed kite

The following one federal and/or State listed as rare, threatened, or endangered wildlife species has a moderate to high potential to occur within the vicinity of the Route D Alternative:

- Swainson's hawk

The following 42 special status wildlife species have a moderate to high potential to occur within the vicinity of the Route D Alternative:

- Coast Range newt
- Western spadefoot
- Large-blotched salamander
- Belding's orange-throated whiptail lizard
- Coast patch-nosed snake
- Coastal rosy boa
- Coronado skink
- Red-diamond rattlesnake
- San Diego mountain kingsnake
- San Diego ringneck snake
- Sharp-shinned hawk (wintering)
- White-faced ibis
- Yellow-breasted chat
- American badger
- Dulzura pocket mouse
- Fringed myotis
- Long-eared myotis
- Long-legged myotis
- Jacumba little pocket mouse
- Northwestern San Diego pocket mouse

- Silvery legless lizard
- Southwestern pond turtle
- Two-striped garter snake
- Bell's sage sparrow
- California horned lark
- Coastal cactus wren
- Ferruginous hawk (wintering)
- Least bittern
- Loggerhead shrike
- Long-eared owl
- Northern harrier
- Pallid bat
- Pallid San Diego pocket mouse
- Pocketed free-tailed bat
- Ringtail
- San Diego black-tailed jackrabbit
- San Diego desert woodrat
- Small-footed myotis
- Southern grasshopper mouse
- Townsend's big-eared bat
- Western mastiff bat
- Yuma myotis

### E.3.2.2 Environmental Impacts and Mitigation Measures

Table E.3.2-1 summarizes the impacts of the Route D Alternative for biology.

Impact No.	Description	Impact Significance
<b>Route D Alternative (including the Central South Substation)</b>		
B-1	Construction activities would result in temporary and permanent losses of native vegetation	Class I and III
B-2	Construction activities would result in adverse effects to jurisdictional waters and wetlands through vegetation removal, placement of fill, erosion, sedimentation, and degradation of water quality	Class II
B-3	Construction and operation/maintenance activities would result in the introduction of invasive, non-native, or noxious plant species	Class II
B-4	Construction activities would create dust that may result in degradation of vegetation	Class III
B-5	Construction activities would result in direct or indirect loss of listed or sensitive plants or a direct loss of habitat for listed or sensitive plants	Class I
B-6	Construction activities, including the use of access roads, would result in disturbance to wildlife and result in wildlife mortality	Class III
B-7	Direct or indirect loss of listed or sensitive wildlife or a direct loss of habitat for listed or sensitive wildlife ( <b>includes impacts B-7D through B-7M for individual wildlife resources</b> )	Class I, II, No Impact
B-8	Construction activities would result in a potential loss of nesting birds (violation of the Migratory Bird Treaty Act)	Class II
B-9	Construction or operational activities would adversely affect linkages or wildlife movement corridors, the movement of fish, and/or native wildlife nursery sites	Class II, No Impact
B-10	Presence of transmission lines may result in electrocution of, and/or collisions by, listed or sensitive bird species	No impact (electrocution) I, II (collision)
B-11	Presence of transmission lines may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers	Class III
B-12	Maintenance activities would result in disturbance to wildlife and could result in wildlife mortality	Class II, III

This section presents a discussion of impacts and mitigation measures for the Route D Alternative, including the Central South Substation, as a result of construction, operation, and maintenance of the project.

Several general impacts to biological resources would occur with this alternative, and impact significance would be the same as for the Proposed Project. For these impacts, the mitigation measures presented for the Proposed Project would also be required for this alternative. Discussion of each of these impacts is presented in the Proposed Project impact analysis in Sections D.2.5 to D.2.16.

- Impact B-3 (Construction and operation/maintenance activities would result in the introduction of invasive, non-native, or noxious plant species; Class II), Mitigation Measure B-1a (Provide restoration/compensation for affected sensitive vegetation communities), Mitigation Measure B-2a (Provide restoration/compensation for impacted jurisdictional areas), and Mitigation Measure B-3a (Prepare and implement a Weed Control Plan)
- Impact B-4 (Construction activities would create dust that may result in degradation of vegetation; Class III)
- Impact B-6 (Construction activities, including the use of access roads, would result in disturbance to wildlife and result in wildlife mortality; Class III)
- Impact B-8 (Construction activities would result in a potential loss of nesting birds (violation of the Migratory Bird Treaty Act; Class II), Mitigation Measure B-8a (Conduct pre-construction surveys and monitoring for breeding birds))

Impacts and the required mitigation measures that differ from the Proposed Project are addressed below.

***Impact B-1: Construction activities would result in temporary and permanent losses of native vegetation (Class I for sensitive vegetation, vegetation management, type conversion, and RCAs; Class III for non-sensitive vegetation)***

Construction of the Route D Alternative would cause both temporary (during construction from vegetation clearing) and permanent (displacement of vegetation with project features such as towers and permanent access roads) impacts to vegetation communities (see Table E.3.2-2). Vegetation communities in Table E.3.2-2 are described in Section D.2.1.2.2. Construction activities would also result in the alteration of soil conditions, including the loss of native seed banks and changes in topography and drainage, such that the ability of a site to support native vegetation after construction is impaired.

The following APMs, as set forth in Table D.2-5, would be implemented to avoid or minimize impacts to vegetation communities: BIO-APM-1 and 2, BIO-APM-4 through BIO-APM-6, BIO-APM-17, BIO-APM-20, BIO-APM-23, and BIO-APM-25. Even with implementation of the APMs, however, the impacts to sensitive vegetation communities would be significant according to Significance Criterion 2.a (substantial adverse effect on a riparian habitat or other sensitive natural community by temporarily or permanently removing it during construction, grading, clearing, or other activities). The measures in the APMs shall still apply except where the mitigation measures are more specific or more restrictive than the APM requirements. In those instances, the mitigation measures take precedence.

Impacts to sensitive vegetation communities are not mitigable to less than significant levels (Class I) because it is unknown if enough mitigation land is available to compensate for the impacts. Impacts to developed areas and disturbed habitat would be adverse but less than significant (Class III), and no mitigation is required unless impacts occur in designated critical habitat for a federal listed species (i.e., coastal California gnatcatcher). Implementation of Mitigation Measures B-1a and B-1c are required to, at least in part, compensate for impacts to sensitive vegetation communities.

Mitigation Measure B-1a includes mitigation ratios required by the various resource agencies, provides more specific information on the required habitat restoration plans, includes the BLM, CPUC, and USDA Forest Service as approving agencies, requires preparation of a habitat management plan, and requires a Property Analysis Record that will identify funding requirements for management of mitigation sites in perpetuity. Mitigation Measure B-1c requires biological monitoring.

Some of the vegetation communities impacted occur within preserves that are part of regional conservation plans. Impacts to these areas are significant according to Significance Criterion 6.a. (conflict with the provisions of local, regional, or state habitat conservation plans and State Park policies/programs by placing development in preserves) and Significance Criterion 6.b. (impact biologically sensitive lands or preserves). The Route D Alternative’s consistency with applicable plans/policies/programs is discussed in Section D.16 (Policy Consistency).

**Riparian Conservation Areas (RCAs).** Impacts to RCAs are not allowed on NFS lands, in accordance with the Forest Plan (USDA, 2005). The Route D Alternative would impact RCAs (5.8 acres of permanent impacts and 0.2 acre of temporary impacts) through the construction of access roads, pull sites, and towers. BIO-APM-2, BIO-APM-4 through 6, BIO-APM-16 through 18, BIO-APM-20, and BIO-APM-23 would be applied to minimize or avoid significant impacts to RCAs. Even with implementation of the APMs, however, the impacts would be considered significant and not mitigable (Class I) according to Significance Criteria 2 (substantial adverse effect on a riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the Wildlife Agencies) and 3.b. (failure to provide a wetland buffer adequate to protect the function and values of existing wetlands) if the final project could not be designed to avoid RCAs. Implementation of Mitigation Measures B-1a and B-1c are required to, at least in part, compensate for impacts to RCAs.

Table E.3.2-2. Impacts to Vegetation Communities and Required Mitigation – Route D Alternative

Vegetation Communities	Permanent Impacts			Temporary Impacts				Total Offsite Mitigation
	Impact	Ratio	Offsite Mitigation	Impact	Ratio	Onsite Restoration	Offsite Mitigation	
<b>Non-Native Vegetation, Developed Areas, and Disturbed Habitat</b>								
Developed	2.64	0	0.00	0.01	0	0.00	0.00	0.00
Disturbed habitat	15.37	0	0.00	0.05	0	0.00	0.00	0.00
<b>Subtotal</b>	<b>18.01</b>	<b>--</b>	<b>0.00</b>	<b>0.06</b>	<b>--</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Coastal and Montane Scrub Habitats</b>								
Coastal sage scrub – inland form	1.17	1.5:1	1.76	0.00	1:1	0.00	0.00	1.76
Coastal sage-chaparral scrub	0.33	1.5:1	0.50	1.13	1:1	1.13	0.00	0.50
Coastal sage-chaparral scrub – burned	1.78	1.5:1	2.67	0.00	1:1	0.00	0.00	2.67
Diegan coastal sage scrub	35.13	1.5:1	52.70	1.92	1:1	1.92	0.00	52.70
Diegan coastal sage scrub – burned	18.82	1.5:1	28.23	7.10	1:1	7.10	0.00	28.23
Diegan coastal sage scrub – disturbed	0.19	1.5:1	0.29	0.00	1:1	0.00	0.00	0.29
<b>Subtotal</b>	<b>57.42</b>	<b>--</b>	<b>86.15</b>	<b>10.15</b>	<b>--</b>	<b>10.15</b>	<b>0.00</b>	<b>86.15</b>
<b>Grasslands and Meadows</b>								
Native grassland	0.00	2:1	0.00	0.00	1:1	0.00	0.00	0.00
Non-native grassland	32.15	1:1	32.15	0.40	1:1	0.40	0.00	32.15
Non-native grassland – burned	0.17	1:1	0.17	0.04	1:1	0.04	0.00	0.17
Non-native grassland – disturbed	0.84	1:1	0.84	0.00	1:1	0.00	0.00	0.84
Valley needlegrass grassland	0.05	2:1	0.05	0.00	1:1	0.00	0.00	0.05
<b>Subtotal</b>	<b>33.21</b>	<b>--</b>	<b>33.21</b>	<b>0.44</b>	<b>--</b>	<b>0.44</b>	<b>0.00</b>	<b>33.21</b>

Table E.3.2-2. Impacts to Vegetation Communities and Required Mitigation – Route D Alternative

Vegetation Communities	Permanent Impacts			Temporary Impacts				Total Offsite Mitigation
	Impact	Ratio	Offsite Mitigation	Impact	Ratio	Onsite Restoration	Offsite Mitigation	
<b>Chaparrals</b>								
Chamise chaparral	13.53	1:1	13.53	0.00	1:1	0.00	0.00	13.53
Chamise chaparral – burned	21.20	1:1	21.20	32.15	1:1	32.15	0.00	21.20
Chamise chaparral – disturbed	4.15	1:1	4.15	0.17	1:1	0.17	0.00	4.15
Northern mixed chaparral	22.27	1:1	22.27	0.84	1:1	0.84	0.00	22.27
Northern mixed chaparral – burned	26.02	1:1	26.02	0.05	1:1	0.05	0.00	26.02
Northern mixed chaparral – disturbed	3.20	1:1	3.20	0.00	1:1	0.00	0.00	3.20
Scrub oak chaparral	2.95	1:1	2.95	32.15	1:1	32.15	0.00	2.95
Scrub oak chaparral – burned	0.41	1:1	0.41	0.17	1:1	0.17	0.00	0.41
Semi-desert chaparral – burned	0.00	1:1	0.00	0.84	1:1	0.84	0.00	0.00
Southern mixed chaparral	7.83	1:1	7.83	0.05	1:1	0.05	0.00	7.83
Southern mixed chaparral – burned	0.68	1:1	0.68	0.00	1:1	0.00	0.00	0.68
Southern mixed chaparral – disturbed	0.48	1:1	0.48	32.15	1:1	32.15	0.00	0.48
<b>Subtotal</b>	<b>102.72</b>	<b>--</b>	<b>102.72</b>	<b>0.17</b>	<b>--</b>	<b>0.17</b>	<b>0.00</b>	<b>102.72</b>
<b>Woodlands and Forests</b>								
Coast live oak woodland	12.30	3:1	36.90	1.62	3:1	1.62	3.24	40.14
Coast live oak woodland – burned	7.37	3:1	22.11	3.44	3:1	3.44	6.88	28.99
Coast live oak woodland – disturbed	1.23	3:1	3.69	0.00	3:1	0.00	0.00	3.69
Engelmann oak woodland	20.97	3:1	62.91	0.38	3:1	0.38	0.76	63.67
Engelmann oak woodland – burned	0.40	3:1	1.20	0.00	3:1	0.00	0.00	1.20
<b>Subtotal</b>	<b>42.27</b>	<b>--</b>	<b>126.81</b>	<b>5.44</b>	<b>--</b>	<b>5.44</b>	<b>10.88</b>	<b>137.69</b>
<b>Herbaceous Wetlands, Freshwater, and Streams</b>								
Disturbed wetland	0.00	3:1	0.00	0.00	2:1	0.00	0.00	0.00
Freshwater	0.08	1:1	0.08	0.00	1:1	0.00	0.00	0.08
<b>Subtotal</b>	<b>0.08</b>	<b>--</b>	<b>0.08</b>	<b>0.00</b>	<b>--</b>	<b>0.00</b>	<b>0.00</b>	<b>0.08</b>
<b>Riparian Scrubs</b>								
Mule fat scrub	0.00	3:1	0.00	0.00	2:1	0.00	0.00	0.00
Southern willow scrub	0.04	3:1	0.12	0.00	2:1	0.00	0.00	0.12
<b>Subtotal</b>	<b>0.04</b>	<b>--</b>	<b>0.12</b>	<b>0.00</b>	<b>--</b>	<b>0.00</b>	<b>0.00</b>	<b>0.12</b>

Table E.3.2-2. Impacts to Vegetation Communities and Required Mitigation – Route D Alternative

Vegetation Communities	Permanent Impacts			Temporary Impacts				Total Offsite Mitigation
	Impact	Ratio	Offsite Mitigation	Impact	Ratio	Onsite Restoration	Offsite Mitigation	
<b>Riparian Forests and Woodlands</b>								
Riparian woodland	0.06	3:1	0.18	0.00	2:1	0.00	0.00	0.18
Riparian woodland – burned	0.00	3:1	0.00	0.00	2:1	0.00	0.00	0.00
Southern coast live oak riparian forest	1.13	3:1	3.39	0.00	2:1	0.00	0.00	3.39
Southern coast live oak riparian forest – burned	0.81	3:1	2.43	0.00	2:1	0.00	0.00	2.43
Southern riparian forest	0.00	3:1	0.00	0.00	2:1	0.00	0.00	0.00
<b>Subtotal</b>	<b>2.00</b>	<b>--</b>	<b>6.00</b>	<b>0.00</b>	<b>--</b>	<b>0.00</b>	<b>0.00</b>	<b>6.00</b>
<b>GRAND TOTAL</b>	<b>255.75</b>	<b>--</b>	<b>355.09</b>	<b>61.56</b>	<b>--</b>	<b>16.20</b>	<b>10.88</b>	<b>365.97</b>

**Vegetation Management (Loss of Trees).** SDG&E has estimated that 5 non-native trees (acacia, eucalyptus, and pine) and up to approximately 616 native trees (2 elderberry and 614 oak trees) would be removed to maintain proper clearance between vegetation and the transmission lines along the entire length of this alternative. The loss of a native tree or shrub that contains an active bird nest would be a violation of the Migratory Bird Treaty Act and a significant impact, but one that is mitigable to less than significant levels (Class II). See discussion in Impact B-8 (Construction activities would result in a potential loss of nesting birds [violation of the Migratory Bird Treaty Act]) for how construction activities (including tree/shrub removal) would result in a potential loss of nesting birds and violation of the Migratory Bird Treaty Act. The loss of native trees and shrubs would be a significant impact (Class I) for these reasons:

- it can have a substantial adverse effect on candidate, sensitive, or special status species (Significance Criterion 1)
- it can have a substantial adverse effect on riparian habitat or other sensitive natural community (Significance Criterion 2)
- it can have a substantial adverse effect on federally protected water quality or wetlands (Significance Criterion 3)
- it can interfere with wildlife movement or the use of native wildlife nursery sites (Significance Criterion 4)
- it can conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (Significance Criterion 5; see discussion in Section D.16).

SDG&E has stated that this alternative would require trimming of 10 non-native trees (acacia, brisbane box, eucalyptus, and pine) and up to approximately 351 native trees (341 oak trees, 8 willow trees, and 2 sycamore trees). The trimming of a native tree or shrub that contains an active bird nest would be a violation of the Migratory Bird Treaty Act and a significant impact that is mitigable to less than significant levels (Class II). See discussion in Impact B-8 for how construction activities (including tree trimming) would result in a potential loss of nesting birds and violation of the Migratory Bird Treaty Act.

Trimming up to 30 percent of a native tree’s crown would diminish the tree’s value as wildlife habitat and could cause harm to the tree leading to its decline or death. Therefore, native tree trimming would be significant according to Significance Criteria 1, 2, 4, and 5 listed above. The loss and trimming of

this large number of native trees is considered significant impacts that would not be mitigable to less than significant levels (Class I) because adequate mitigation land required by Mitigation Measure B-1a for restoration and/or acquisition may not be available. However, Mitigation Measure B-1a is required to reduce the impacts to the greatest extent possible.

**Type Conversion.** As discussed in Section D.15 for the Proposed Project, the construction and operation of new transmission lines in areas with high fire risk could cause wildfires, and could reduce the effectiveness of fire fighting efforts. Fires cause direct loss of vegetation communities, wildlife habitat, and wildlife species. Although periodic fires are part of the natural ecosystem, fires burning too frequently can have significant long-term ecological effects such as degradation of habitat (temporal loss of habitat and non-native plant species invasion) and loss of special status species. The biodiversity of San Diego County is uniquely adapted to low rainfall, rugged topography, and wildfires. However, fires have become more frequent with growth in the human population, creating a situation in which vegetation communities (and, therefore, habitats for plant and animal species) are changed dramatically and may not recover. This change in vegetation community is called “type conversion” and can occur to any native vegetation community. When burned too frequently, vegetation communities are often taken over by highly flammable, weedy, non-native plant species that burn even more often and provide minimal habitat value for native plant and animal species, especially those of special status. For example, the coastal California gnatcatcher is dependent primarily on coastal sage scrub vegetation which, if burned too many times, can convert to non-native grassland or disturbed habitat that would preclude its use by the gnatcatcher. If the project were to cause a fire, or inhibit fighting of fires, and this leads to type conversion of sensitive vegetation communities, the impact would be significant (Class I) according to Significance Criterion 1 (substantial adverse effect through habitat modification on any species identified as candidate, sensitive, or special status) and/or Significance Criterion 2 (substantial adverse effect on a riparian habitat or other sensitive natural community).

Extensive mitigation for fire risk is presented in Section D.15 for the Proposed Project. However, not all fires can be prevented. Although future fires may not cause type conversion in all instances, the impact must be considered significant because of the severity of potential habitat loss. This impact is not mitigable to less than significant levels (Class I). Implementation of the vegetation management program (described above) would reduce the fire risk of the project, although not to a less than significant level.

***Mitigation Measures for Impact B-1: Construction activities would result in temporary and permanent losses of native vegetation***

**B-1a** Provide restoration/compensation for affected sensitive vegetation communities. Mitigation ratios and mitigation acreages for the Route D Alternative are provided in Table E.3.2-2.

**B-1c** Conduct biological monitoring.

***Impact B-2: Construction activities would result in adverse effects to jurisdictional waters and wetlands through vegetation removal, placement of fill, erosion, sedimentation, and degradation of water quality (Class II)***

Direct and/or indirect impacts to jurisdictional waters and possibly wetlands (i.e., areas regulated by the ACOE and Regional Water Quality Control Board RWQCB and/or CDFG) could occur from construction of the Route D Alternative. Impacts to jurisdictional areas can not be clearly defined until a final route is selected that includes project-specific features and final engineering. At that time, a formal delineation would be conducted to determine those impacts so that SDG&E can apply for permits from the ACOE, Regional Water Quality Control Board (RWQCB), and CDFG. Since a formal delineation has

not yet been conducted, the precise presence and extent of waters and wetlands at this time is unknown. However, the following vegetation communities identified during vegetation mapping for this alternative are often jurisdictional: disturbed wetland, freshwater, mule fat scrub, southern willow scrub, riparian woodland, southern coast live oak riparian woodland, and southern riparian forest.

The following APMs, as set forth in Table D.2-5, would be implemented to minimize or prevent significant impacts to jurisdictional waters and wetlands: BIO-APM-1 and BIO-APM-2, BIO-APM-4, BIO-APM-5, BIO-APM-16, and BIO-APM-18. Even with implementation of the APMs, this alternative could have a significant impact on regulated jurisdictional areas according to Significance Criterion 3.a. (substantial adverse effect on water quality or wetlands as defined by the ACOE and/or CDFG). The impacts would be significant because the APMs are not specific enough or do not provide enough mitigation to adequately compensate for the impacts. The measures in the APMs shall still apply except where the mitigation measures are more specific or more restrictive than the APM requirements. In those instances, the mitigation measures take precedence. These impacts would be considered significant but mitigable to less than significant levels (Class II) with implementation of Mitigation Measures B-1c and B-2a.

*Mitigation Measures for Impact B-2: Construction activities would result in adverse effects to jurisdictional waters and wetlands through vegetation removal, placement of fill, erosion, sedimentation, and degradation of water quality*

**B-1c Conduct biological monitoring.**

**B-2a Provide restoration/compensation for affected jurisdictional areas.**

*Impact B-5: Construction activities would result in direct or indirect loss of listed or sensitive plants or a direct loss of habitat for listed or sensitive plants (Class I)*

Listed or sensitive (special status) plant species impacts would result from direct loss of known locations of individuals, or direct loss of habitat. Known locations of individuals are where a species was observed during on-the-ground surveys. Direct loss of known locations of individuals or habitat occurs from temporary or permanent grading or vegetation clearing. Indirect loss of individuals occurs in instances such as sediments transported (e.g., from cleared areas during rain events) that cover adjacent plants or changes in a plant's environment that cause its loss (e.g., adjacent shrubs that provided necessary shade are removed).

Focused plant species surveys were conducted in spring/summer of 2007 only where ROE permission was granted. Three special status plant species were observed during 2007: San Diego thorn-mint (FT, SE), felt-leaved monardella (FSS, L1B), and Ramona horkelia (FSS, L1B; Appendix 8J). San Diego thorn-mint is also assumed to be present throughout the USDA Forest Service modeled habitat for the species (USDA, 2007). However, as with the Proposed Project, the results of the surveys are inconclusive because the poor rainfall conditions may have prevented special status plants from germinating or resprouting so they could not be observed.

The following 30 special status plant species have moderate to high potential to occur along the alternative based on the habitats present and/or documented CNDDDB, USFWS, and USDA Forest Service records: San Diego milk vetch, Orcutt's brodiaea, Dunn's mariposa lily, Payson's jewel-flower, long-spined spineflower, delicate clarkia, Palmer's goldenbush, vanishing wild buckwheat, sticky geraea, Mission Canyon bluecup, San Diego gumplant, San Diego sunflower, Robinson's pepper-grass, lemon lily, Parish's meadowfoam, Orcutt's linanthus, Hall's monardella, Baja navarretia, chaparral nolina, Dehesa nolina, San Bernardino bluegrass, San Miguel savory, southern skullcap, Gander's ragwort, Hammitt's clay-cress, Laguna Mountains jewel-flower, southern jewel-flower, San Bernardino aster, Parry's tetracoccus,

and velvety false lupine. Five of these are federal and/or State listed: Orcutt's brodiaea (SR), Dunn's mariposa lily (SR), Dehesa nolina (SE), San Bernardino bluegrass (FE), and Gander's ragwort (SR). For more specific information about the special status plant species and their listing or sensitivity statuses, see Table E.1.2-1.

The following APMs would be implemented for this alternative to minimize or avoid significant impacts to listed or sensitive plant species or their habitats: BIO-APM-1 through 6, BIO-APM-8, BIO-APM-13, BIO-APM-18, and BIO-APM-22. Even with implementation of the APMs, the Route D Alternative would impact the following special status plant species:

**San Diego thorn-mint.** San Diego thorn-mint occurs approximately 1,500 feet west of MP D-0.9 (Appendix 8J, Figure Ap.8J-28). Two individuals were observed at this location, but would not be affected by this alternative. Additionally, USDA Forest Service modeled habitat (USDA, 2007) for San Diego thorn-mint occurs near MP D-1.3, D-2.6, and D-15.5. It is assumed that the species is present throughout the modeled habitat due to inconclusive surveys in 2007. The Route D Alternative would affect this species near D-1.3 through the construction Tower S10085, a pull site, and an access road from Viejas Grade Road to Tower S10086. The species would be affected near D-2.6 through the construction Tower S10079 and the access road associated with that tower. The species would also be affected near D-15.5 through the construction Towers SR2055, SR2056, and SR2057, 2 pull sites near MP D-15.5, and the access roads associated with those towers and pull sites.

**Felt-leaved monardella.** Felt-leaved monardella occurs at MPs D-0.4, D-1.4, between D-1.6 and D-2.5, and at D-2.9; approximately 115, 21, 2,963, and 110 were observed in these locations, respectively (Appendix 8J, Figure Ap.8J-28). Up to 21 individuals would be affected by construction of Tower S10084 and its associated pull site. Up to 80 individuals would be affected by construction of Tower S10082. Up to 1,405 individuals would be affected by construction of Tower S10081. The other locations totaling 1,703 would not be affected, although it is important to note focused plant surveys did not include the locations of where the access roads would occur and more individuals would be affected through habitat removal for road construction.

**Ramona horkelia.** Ramona horkelia occurs at MPs D-6.9 and D-7.3 (Appendix 8J, Figure Ap.8J-29). Up to 11 individuals would be affected by construction of a pull site at D-7.4. Two Ramona horkelia at D-6.9 would not be affected by construction of the Route D Alternative.

Even with implementation of the APMs, the impacts would be significant according to Significance Criterion 1.a. (impact to one or more individuals of a species that is federal or State listed as endangered or threatened) and Significance Criterion 1.b. (impact that would affect the number or range or regional long-term survival of a sensitive or special status plant species).

With the exceptionally dry weather conditions in 2007, the assumption is made that special status plant species are present and impacted by this alternative. Since it is not possible to adequately assess the amount of impact to the special status plant species, the impacts are considered significant and not mitigable to less than significant levels (Class I). Implementation of Mitigation Measures B-1a, B-1c, B-2a, and B-5a is required to, at least in part, compensate for impacts to special status plant species.

*Mitigation Measures for Impact B-5: Construction activities would result in direct or indirect loss of listed or sensitive plants or a direct loss of habitat for listed or sensitive plants*

**B-1a** Provide restoration/compensation for affected sensitive vegetation communities.

**B-1c** Conduct biological monitoring.

**B-2a Provide restoration/compensation for affected jurisdictional areas.**

**B-5a Conduct rare plant surveys and implement appropriate avoidance/minimization/mitigation strategies.**

*Impact B-7: Direct or indirect loss of listed or sensitive wildlife or a direct loss of habitat for listed or sensitive wildlife (Class I - construction impacts to sensitive species; Other impact classes depend on species; see individual discussions)*

The Route D Alternative would impact the following listed or highly sensitive wildlife species: least Bell's vireo (Impact B-7D), golden eagle (Impact B-7H), quino checkerspot butterfly (Impact B-7J), arroyo toad (Impact B-7K), and coastal California gnatcatcher (Impact B-7M). This alternative could also impact southwestern willow flycatcher (Impact B-7E) and bald eagle (Impact B-7I). Impacts to these species are discussed in detail below. Impacts to the listed Swainson's hawk are discussed in Impact B-10.

The following listed or highly sensitive species that are addressed for the Proposed Project are not addressed for the Route D Alternative because they either do not occur, or have low potential to occur, in the alternative study area: FTHL (Impact B-7A), PBS (Impact B-7B), burrowing owl (Impact B-7C), desert pupfish (Impact B-7F), desert tortoise (Impact B-7G), Stephens' kangaroo rat (Impact B-7L), San Diego and/or Riverside fairy shrimp (Impact B-7N), and barefoot banded gecko (Impact B-7O).

The Route D Alternative would impact the following non-listed, sensitive wildlife species and their habitats: Coast (San Diego) horned lizard, Cooper's hawk, grasshopper sparrow, prairie falcon, purple martin, rufous-crowned sparrow, white-tailed kite, and yellow warbler (Appendix 8J). This alternative also has the potential to impact the 42 non-listed, sensitive wildlife species with moderate to high potential to occur (listed at the beginning of E.1.1.2 [Special Status Wildlife Species]) should they be present.

**Coast (San Diego) horned lizard.** Sixteen Coast (San Diego) horned lizards were observed along the Route D Alternative at MPs D-0.2, D-3.3, D-4.8, D-7.9, between D-11.5 and D-12.3, and at D-15.6 (Appendix 8J, Figures Ap.8J-28 through Ap.8J-31). Several coast horned lizards were also observed outside of the Route D Alternative ROW. The horned lizard would be affected by the removal of vegetation and habitat modification, and individuals of the species could also be killed if they are within the construction zone and are crushed by equipment.

**Cooper's hawk.** Cooper's hawks were observed in three locations along the Route D Alternative: MPs D-2.8, D-5.8, and D-14.2 (Appendix 8J, Figures Ap.8J-28, Ap.8J-29, and 8J-30). An additional Cooper's hawk was observed in the vicinity of the Route D Alternative, approximately 0.5 mile west of MP 10.5. This species could possibly breed along this alternative (Unitt, 2004) and the species would be affected through removal of vegetation and habitat modification. Construction would cause indirect noise impacts to breeding Cooper's hawks if construction were to occur in or adjacent to its breeding habitat (riparian and oak woodlands) during the general avian breeding season (see Impact B-8).

**Grasshopper sparrow.** Grasshopper sparrows were observed in two locations at the Central South Substation site (Appendix 8J, Figure 8J-31). This alternative would affect these two individuals through habitat removal for the construction of the substation. Construction would cause significant indirect noise impacts that would affect grasshopper sparrow breeding if construction were to occur adjacent to its habitat during the general avian breeding season (see Impact B-8).

**Prairie falcon.** The prairie falcon was observed at MP D-14.0 (Appendix 8J, Figure Ap.8J-30). This species is known to nest within 4,000 feet of the Route D Alternative and is susceptible to human disturbance. It is expected that habitat removal and construction of the Route D Alternative would result in the loss of this known prairie falcon nest site.

**Purple martin.** The purple martin was observed approximately 0.5 mile south of MP D-12.0 (Appendix 8J, Figure Ap.8J-30). Although the species has not been confirmed to breed in the vicinity, Unitt (2004) notes that breeding is possible along the San Diego River gorge. If breeding purple martins were present, construction would cause indirect noise impacts to the species if construction were to occur in or adjacent to its breeding habitat (open woodlands) during the general avian breeding season (see Impact B-8). Also, the purple martin would be impacted by the removal of vegetation and habitat modification in the area.

**Rufous-crowned sparrow.** Ten rufous-crowned sparrows were observed along the Route D Alternative at MPs D-1.1, near D-2.7, at D-8.6, near D-8.8, D-12.1, D-13.1, near D-13.3, and at D-14.5 (Appendix 8J, Figure Ap.8J-28, Ap.8J-29, and 8J-30). This species would be affected through removal of vegetation and habitat modification. Construction would also cause indirect noise impacts to the species if construction were to occur in or adjacent to habitat during the general avian breeding season (see Impact B-8).

**White-tailed kite.** White-tailed kites were observed in two locations along the Route D Alternative: approximately 1,500 feet east of MP D-10.4 and at MP D-14.7 (Appendix 8J, Figure Ap.8J-30 and Ap.8J-31). This species could possibly breed along this alternative (Unitt, 2004) and would be affected through removal of vegetation and habitat modification. Construction would also cause indirect noise impacts to the species if construction were to occur in or adjacent to habitat during the general avian breeding season (see Impact B-8).

**Yellow warbler.** Yellow warblers were observed in four locations along the Route D Alternative at MPs D-5.8, east of D-7.2, D-7.4, D-8.6, D-8.9, and west of D-13.1 (Appendix 8J, Figure Ap.8J-29). This species is expected to breed along this alternative and would be affected through removal of vegetation and habitat modification. Construction would also cause indirect noise impacts to the species if construction were to occur in or adjacent to habitat during the general avian breeding season (see Impact B-8). The following APMs, as set forth in Table D.2-5, would be implemented to minimize or prevent direct or indirect loss of listed or sensitive wildlife or a direct loss of habitat for listed or sensitive wildlife: BIO-APM-2 through 4, BIO-APM-7, BIO-APM-14, BIO-APM-16, BIO-APM-24, BIO-APM-26, BIO-APM-27, and BIO-APM-29. Even with implementation of the APMs, the Route D Alternative would have a substantial adverse effect on listed and sensitive wildlife species and their habitats according to Significance Criterion 1 (substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the Wildlife Agencies).

Most of the non-listed special status species' habitats are sensitive vegetation communities (Table E.3.2-2); the mitigation for the loss of the sensitive vegetation communities (Mitigation Measure B-1a) would normally compensate for the potential loss of these sensitive species and their habitats. However, since adequate land required by Mitigation Measure B-1a may not be available, the impacts to non-listed sensitive wildlife species are considered significant and not mitigable to less than significant levels (Class I). Implementation of Mitigation Measures B-1a, B-1c, B-2a, and B-7a is required to compensate, at least in part, for impacts to non-listed, sensitive wildlife species and their habitats.

*Mitigation Measures for Impact B-7: Direct or indirect loss of Listed or sensitive wildlife or a direct loss of habitat for listed or sensitive wildlife*

- B-1a** Provide restoration/compensation for affected sensitive vegetation communities.
- B-1c** Conduct biological monitoring.

- B-2a Provide restoration/compensation for affected jurisdictional areas.**
- B-7a Ensure that all steep-walled trenches or excavations used during construction shall be covered to prevent the entrapment of wildlife (e.g., reptiles and small mammals).**

*Impact B-7D: Direct or indirect loss of least Bell's vireo or direct loss of habitat (Class II)*

Focused surveys for the least Bell's vireo were conducted at MP D-2.7 (King Creek), D-5.8 (Conejos Creek), D-7.4 (unnamed), D-7.6 (unnamed), D-8.6 (unnamed), D-8.9 (Boulder Creek), and D-13.2 (Cedar Creek). Surveys were not conducted where the Route D Alternative would cross the San Diego River (MP D-14.7) because the vegetation consisted of cattails and several scattered tamarisk and mule fat shrubs, which is not considered suitable for the vireo.

Least Bell's vireo was documented approximately 2,000 feet to the west (downstream) of D-13.2 during the 2007 surveys. The results at the other survey areas were negative. Construction of the Route D Alternative would not result in impacts to riparian vegetation along Cedar Creek, including near MP D-13.2 where the vireo was documented. However, construction in other areas of the Route D Alternative would result in impacts to riparian vegetation with the potential to support least Bell's vireo. Least Bell's vireo breeding can also be affected by excessive construction noise (considered to be 60 dB(A) Leq at the edge of occupied habitat by the USFWS [USFWS, 2007c; American Institute of Physics, 2005]).

Any impact to least Bell's vireo breeding would be significant according to Significance Criterion 1.a. (substantial adverse effect through any impact to one or more individuals of a federal or State listed species), Significance Criterion 1.g. (substantial adverse effect through activities that result in the killing of migratory birds or destruction or abandonment of migratory bird nests and/or eggs), and Significance Criterion 4.d. (adversely affect wildlife through an increase in noise). Any impact to vireo breeding from excessive noise would be significant but mitigable to less than significant levels (Class II) with implementation of Mitigation Measures B-1a, B-1c, B-2a, and B-7e.

*Mitigation Measures for Impact B-7D: Direct or indirect loss of least Bell's vireo or direct loss of habitat*

- B-1a Provide restoration/compensation for affected sensitive vegetation communities.**
- B-1c Conduct biological monitoring.**
- B-2a Provide restoration/compensation for affected jurisdictional areas.**
- B-7e Conduct least Bell's vireo and southwestern willow flycatcher surveys and implement appropriate avoidance/minimization/compensation strategies.**

*Impact B-7E: Direct or indirect loss of southwestern willow flycatcher or direct loss of habitat (Class II)*

Focused surveys for the southwestern willow flycatcher were conducted at MP D-7.4 (unnamed), D-7.6 (unnamed), D-8.6 (unnamed), D-8.9 (Boulder Creek), and D-13.2 (Cedar Creek). Surveys were not conducted where the Route D Alternative would cross the San Diego River (D-14.7) because the vegetation consisted of cattails and several scattered tamarisk and mule fat shrubs, which is not considered suitable for the species.

Survey results at the remaining sites were negative. Construction of the Route D Alternative would result in impacts to riparian vegetation with the potential to support southwestern willow flycatcher. Southwestern willow flycatcher breeding can also be affected by excessive construction noise (considered to be 60

dB(A) Leq at the edge of occupied habitat by the USFWS [USFWS, 2007c; American Institute of Physics, 2005]).

Any impact to southwestern willow flycatcher breeding would be significant according to Significance Criterion 1.a. (substantial adverse effect through any impact to one or more individuals of a federal or State listed species), Significance Criterion 1.g. (substantial adverse effect through activities that result in the killing of migratory birds or destruction or abandonment of migratory bird nests and/or eggs), and Significance Criterion 4.d. (adversely affect wildlife through an increase in noise). Any impact to flycatcher breeding, including impacts due to excessive noise, would be significant but mitigable to less than significant levels (Class II) with implementation of Mitigation Measures B-1a, B-1c, B-2a, and B-7e.

***Mitigation Measures for Impact B-7E: Direct or indirect loss of southwestern willow flycatcher or direct loss of habitat***

- B-1a** Provide restoration/compensation for affected sensitive vegetation communities.
- B-1c** Conduct biological monitoring.
- B-2a** Provide restoration/compensation for affected jurisdictional areas.
- B-7e** Conduct least Bell's vireo and southwestern willow flycatcher surveys and implement appropriate avoidance/minimization/compensation strategies.

***Impact B-7H: Direct or indirect loss of golden eagle or direct loss of habitat (Class I)***

As noted in Section D.2.11, the golden eagle is very sensitive to human activity, especially in the vicinity of its nest site, and even distant construction activity (or maintenance activity; see Impact B-12) could cause abandonment of a nest, subsequent reproductive failure, and continuing decline of the species. These impacts would be significant according to Significance Criteria 1.e (substantial adverse effect on the breeding success of the golden eagle), 1.f (directly or indirectly cause the mortality of a special status species), 1.g (result in the abandonment of migratory bird nests and/or eggs), and 1.h (result in take of bald or golden eagles, eagle eggs or any part of an eagle). Human activity within 4,000 feet of a nest site is considered significant and not mitigable to less than significant levels (Class I), especially if there is direct line-of-sight between the nest site and the human activity, or if the human activity occurs above the nest site in elevation. An exception to this is if the activity within 4,000 feet of the nest site (without direct line-of-site and activity is below the nest site) occurs where there is already an existing disturbance such as a road or utility corridor.

One golden eagle nest area would be affected by the Route D Alternative. The specific location of this nest area is not disclosed in this EIR/EIS, nor are the MPs within 4,000 feet of the nest area in order to protect the golden eagle. SDG&E will be made aware of the MPs subject to mitigation in an unpublished document. Nest locations, for purposes of this document, were provided by the Wildlife Research Institute (Bittner, 2007).

The nest area occurs approximately 1,500 feet from the Route D Alternative, and there is direct line-of-site between this nest area and the project. Project construction would occur at the same elevation as the nest site. Impacts to this eagle pair would be significant and not mitigable to less than significant levels (Class I) because of the distance between the nest area and the project (less than 4,000 feet) and the direct line-of-site that would occur. Implementation of Mitigation Measure B-7h is still required to minimize the impact.

Impacts and the associated mitigation related to golden eagles and electrocution/collision with transmission towers/lines is discussed in Impact B-10 below.

*Mitigation Measure for Impact B-7H: Direct or indirect loss of golden eagle or direct loss of habitat*

**B-7h Implement appropriate avoidance/minimization strategies for eagle nests.**

*Impact B-7I: Direct or indirect loss of bald eagle or direct loss of habitat (No Impact)*

The Route D Alternative would not cross USDA Forest Service modeled habitat for bald eagle (USDA, 2007). Bald eagles are also known to winter near Morena Reservoir, which is approximately 6 miles to the southwest, and Corte Madera Lake, which is approximately 5 miles to the west (Appendix 8c). At its closest point (at D-17.3), the Route D Alternative is approximately 4.5 miles away from reported bald eagle sightings at Lake Sutherland (USDA, 2007). The bald eagle is not known to and is not expected to nest within or adjacent to the Route D Alternative (Bittner, 2007) and no impacts to bald eagle as a result of the Route D Alternative are expected.

Impacts/mitigation relating to bald eagles and electrocution/collision with transmission towers/lines is discussed in Impact B-10 below.

*Impact B-7J: Direct or indirect loss of quino checkerspot butterfly or direct loss of habitat (Class I)*

Protocol surveys for the QCB were not conducted in 2007 for the Route D Alternative because the butterfly flight season was not preceded by adequate rainfall. As a result, no presence/absence data for this species is available for this alternative and a precise impact determination cannot be adequately made.

The QCB has not been reported in the vicinity of the Route D Alternative. The closest QCB observation was made in 2004, approximately 7.5 miles southwest of MP D-0 (USFWS, 2006). A historic QCB observation was made in 1972, approximately 8 miles southeast of MP D-0 near Pine Valley (USFWS, 2006). No critical habitat for this species occurs along this alternative; the nearest critical habitat is approximately 15 miles to the southwest.

The entire Route D Alternative occurs within USFWS protocol Survey Area 2, an area where protocol surveys are required in suitable QCB habitat (USFWS, 2002a). Suitable QCB habitat includes shrub communities such as coastal sage scrub, chaparral, and desert scrub with 50 percent or less shrub cover and the potential to support dot-seed plantain (*Plantago erecta*) or other larval host plants.

With the lack of definitive survey data, the Route D Alternative would have a significant impact on this species according to Significance Criterion 1.a. (impact one or more individuals of a species that is federal or State listed as endangered or threatened). Implementation of Mitigation Measures B-1a, B-1c, B-2a, and B-7i are required to, at least in part, mitigate for impacts to the QCB butterfly and its habitat. Mitigation Measure B-7i requires a pre-construction survey for the species be conducted within any designated USFWS QCB survey area. Since adequate land required by Mitigation Measure B-7i may not be available, the impacts are considered significant and not mitigable to less than significant levels (Class I).

*Mitigation Measures for Impact B-7J: Direct or indirect loss of quino checkerspot butterfly or direct loss of habitat*

**B-1a Provide restoration/compensation for affected sensitive vegetation communities.**

**B-1c Conduct biological monitoring.**

**B-2a Provide restoration/compensation for affected jurisdictional areas.**

**B-7i Conduct quino checkerspot butterfly surveys and implement appropriate avoidance/minimization/compensation strategies.**

***Impact B-7K: Direct or indirect loss of arroyo toad or direct loss of habitat (Class II)***

Focused surveys in 2007 were conducted for the arroyo toad at MP D-2.7 (King Creek), D-5.8 (Conejos Creek), D-7.4 (unnamed), D-7.6 (unnamed), D-8.6 (Boulder Creek), D-8.9 (Boulder Creek), and D-13.2 (Cedar Creek), and D-14.7 (San Diego River). Additionally, ROE access was not obtained for where the Route D Alternative would cross Ritchie Creek (D-14.3); surveys at this site were completed by listening for arroyo toads from Eagle Peak Road.

Arroyo toad was documented at D-14.7 during the 2007 surveys. All habitat within 1 km of D-14.7 is assumed to be occupied by the species (USFWS, 1999), including Ritchie Creek (D-14.3). Survey results at the remaining sites were negative.

Impacts to the arroyo toad or its occupied breeding or burrowing habitat from habitat removal or disturbance from construction (e.g., crushing of toads with construction equipment) of the Route D Alternative where the toad is known to occur (San Diego River) and assumed to be present (Ritchie Creek) include: less than 0.1 acre of permanent impacts to breeding habitat, 19.5 acres of permanent impacts to upland burrowing habitat, and 7.5 acres of temporary impacts to upland burrowing habitat. Impacts to arroyo toad would be significant according to Significance Criterion 1.a. (substantial adverse effect, either directly or indirectly, on one or more individuals of a federal or State listed species through habitat modification). These impacts would be significant but mitigable to less than significant levels (Class II) through implementation of Mitigation Measures B-1a, B-1c, B-2a, and B-7j. The pre-construction survey required in Mitigation Measure B-7j would conclusively define all the impacts to the arroyo toad from construction of the Route D Alternative (i.e., if appropriate climatic conditions are present to encounter arroyo toads at Ritchie Creek). The mitigation in Mitigation Measure B-7j may need to be reduced based on the results of this survey. It is expected that appropriate mitigation land would be available to satisfy the mitigation requirement because of the small number of acres needed and because this type of mitigation for the arroyo toad is typically available and regularly provided in San Diego County.

***Mitigation Measures for Impact B-7K: Direct or indirect loss of arroyo toad or direct loss of habitat***

- B-1a**      **Provide restoration/compensation for affected sensitive vegetation communities.**
- B-1c**      **Conduct biological monitoring.**
- B-2a**      **Provide restoration/compensation for affected jurisdictional areas.**
- B-7j**      **Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Route D Alternative, the required mitigation for arroyo toad occupied habitat includes 7.5 acres of on-site restoration and 46.6 acres of off-site acquisition and preservation of occupied toad habitat consisting of 0.1 acres of breeding habitat and 46.5 acres of upland burrowing habitat. All other arroyo toad mitigation described in Mitigation Measure B-7j for the Proposed Project (Section D.2.11) is also required for the Route D Alternative.

***Impact B-7M: Direct or indirect loss of coastal California gnatcatcher or direct loss of habitat (Class II)***

A population of 30 pairs of coastal California gnatcatcher was discovered in 1992–93 in the upper San Diego River Valley on the Palomar Ranger District (USDA, 2000). This population was reduced to about 15 pairs after a May 1993 fire that burned more than 1,000 acres of coastal sage scrub. Some areas returned in a 1996 wildland fire. Most of the burned area was not recolonized, although vegetation

recovered (USDA, 2000). In 2002, surveyors found 6 pairs in the upper San Diego River area, but the entire area burned again in the fall 2003 Cedar fire. Coastal California gnatcatchers have not been documented in the upper San Diego River area after the Cedar fire.

Focused surveys for the coastal California gnatcatcher were conducted along the Route D Alternative where ROE permission was granted between MP D-12.1 and D-16.1 and along the Central South Substation (Appendix 8c). Coastal California gnatcatchers are not expected to occur where ROE permission was not granted because the habitat was marginal and surveyors spent considerable time listening for gnatcatchers from areas where ROE access was granted.

The 2007 survey results were negative. Construction of the Route D Alternative (including the Central South Substation) would result in impacts to vegetation that has the potential to support the coastal California gnatcatcher. Approximately 16.8 acres of designated coastal California gnatcatcher critical habitat would also be impacted by the Route D Alternative (3.3 acres of temporary impact and 13.5 acres of permanent impact). Direct and indirect impacts to the gnatcatcher and its occupied or critical habitat from habitat removal and construction activity would be significant according to the following Significance Criteria: 1.a.) substantial adverse effect through any impact to one or more individuals of a federal or State listed species; 1.d.) temporary or permanent disturbance of designated critical habitat for federal listed species; and 1.g.) substantial adverse effect through activities that result in the killing of migratory birds or destruction or abandonment of migratory bird nests and/or eggs.

Any direct impact to the gnatcatcher and its occupied or critical habitat would be significant but mitigable to less than significant levels (Class II) with implementation of Mitigation Measures B-1a, B-1c, B-2a, and B-7l, which requires removing habitat outside the breeding season, restoring/compensating for any temporary or permanent losses of habitat, and monitoring for disturbance of nesting activities and taking action to stop the disturbance. The pre-construction survey required in Mitigation Measure B-7l would conclusively define all the impacts to the coastal California gnatcatcher from construction of the Route D Alternative. The mitigation in Table E.3.2-2 may need to be revised based on the results of this survey.

Additionally, gnatcatcher breeding can be affected by excessive construction noise (considered to be 60 dB(A) Leq at the edge of occupied habitat by the USFWS [American Institute of Physics, 2005]). This impact would be significant according to Significance Criteria 4.d (interfere substantially with wildlife through an increase in noise that affects the behavior of animals). Such excessive noise would be a significant impact on gnatcatcher breeding but is mitigable to less than significant levels (Class II) with implementation of Mitigation Measures B-1c and B-7l.

***Mitigation Measures for Impact B-7M: Direct or indirect loss of coastal California gnatcatcher or direct loss of habitat***

- B-1a** Provide restoration/compensation for affected sensitive vegetation communities.
- B-1c** Conduct biological monitoring.
- B-2a** Provide restoration/compensation for affected jurisdictional areas.
- B-7l** Conduct coastal California gnatcatcher surveys and implement appropriate avoidance/minimization/compensation strategies. For the Route D Alternative, the required mitigation for the loss of coastal California gnatcatcher designated critical habitat includes 3.3 acres of on-site restoration and 27.0 acres off-site acquisition and preservation of designated critical habitat for the gnatcatcher. All other coastal California gnatcatcher mitigation described in Mitigation Measure B-7l for the Proposed Project (Section D.2.11) is also required for the Route D Alternative.

***Impact B-9: Construction or operational activities would adversely affect linkages or wildlife movement corridors, the movement of fish, and/or native wildlife nursery sites (Class II for bat colonies; No Impact for linkages, wildlife movement corridors, or fish movement)***

The Route D Alternative would not significantly impact or restrict general wildlife movement. This alternative would implement BIO-APM-2, BIO-APM-3, BIO-APM-5, BIO-APM-18, and BIO-APM-29, as described in Table D.2-5, to minimize or prevent potential adverse effects to linkages or wildlife corridors, the movement of fish, and native wildlife nursery sites. Due to the intermittent locations of construction activity, and since impacts to native habitats at each structure location would be relatively small, wildlife would not be prevented from moving around any project equipment within the transmission corridor (No Impact).

Surface water resources along the Route D Alternative include the San Diego River, several named creeks, and other unnamed streams, the majority of which are dry at most times and unlikely to support fish populations. The majority of these watercourses (including the San Diego River, Cedar Creek, Boulder Creek, and King Creek) would be spanned by transmission lines; impacts associated with access road construction across streams would occur in accordance with BIO-APM-5 that limits impacts to watercourses through project design. Therefore, the I-8 Alternative is not expected to affect the movement of fish (No Impact).

Even with implementation of the APMs, bat nursery colonies would still be significantly impacted by the Route D Alternative if humans approach an active nursery colony, if entrances to nursery colony sites become blocked, if construction involves blasting or drilling that causes substantial vibration of the earth/rock surrounding an active nursery colony, or if a structure such as a bridge is disturbed by construction. These colonies could be located in rock crevices, caves, or culverts; inside/under bridges; in other man-made structures; and in trees (typically snags or large trees with cavities). A bat nursery colony site is where pregnant female bats assemble (or one bat if it's of a solitary species) to give birth and raise their pups.

The impacts to bat nursery colonies would be significant according to Significance Criterion 4 (impede the use of native wildlife nursery sites). The impacts would be significant because the APMs are not specific enough or do not provide enough mitigation to adequately compensate for the impacts. The measures in the APMs shall still apply except where the mitigation measures are more specific or more restrictive than the APM requirements. In those instances, the mitigation measures take precedence. This impact is significant but mitigable to less than significant levels (Class II) with implementation of Mitigation Measure B-9a which includes surveying for bat colonies; prohibiting approach of, or entrance to, an active nursery colony site; and implementation of methods to minimize potential indirect impacts to a colony site from falling rock or substantial vibration.

***Mitigation Measure for Impact B-9: Construction or operational activities would adversely affect linkages or wildlife movement corridors, the movement of fish, and/or native wildlife nursery sites***

**B-9a Survey for bat nursery colonies.**

***Impact B-10: Presence of transmission lines may result in electrocution of, and/or collisions by, listed or sensitive bird species (No Impact for electrocution; Class I for collision for listed species; Class II for collision for non-sensitive species or daytime migration)***

The types of potential impacts related to collision are the same as those described for the Proposed Project in Section D.2.5.10. It is anticipated that the Route D Alternative would not present an electrocution risk to birds.

Mortality as a result of collision with Route D Alternative project features would be greatest where the movements of migrating birds are the most concentrated. However, there is no known concentrated movement of migrating birds in San Diego County in the vicinity of this alternative (Unitt, 2007), and there is a lack of any topography to funnel migrating birds through the vicinity of this alternative. Most observations of migrating birds are of scattered individuals and small flocks.

Even so, since most birds migrate at night, and migration corridors have never been studied systematically (their use by birds has had to be pieced together from anecdotes), there is no way to know how many birds and what species of birds could actually be impacted by collision with the project transmission lines, towers, poles, or static wires. There is no way to know because much of the migration occurs at night when it cannot be seen, and birds that collide with transmission line features and fall to the ground are often taken away by predators/scavengers before morning. Therefore, as with the Proposed Project, it is assumed that some migrating species could be federal or State listed or of other special status, and their mortality would be a significant impact that is not mitigable to less than significant levels (Class I) according to the following Significance Criteria: 1.a. (substantial adverse effect through any impact to one or more individuals of a federal or State listed species), 1.f. (directly or indirectly cause the mortality of candidate, sensitive, or special status wildlife species), and 1.g. (result in the killing of migratory birds). Also, like the Proposed Project, for non-sensitive species or species that migrate during the day, collision would be significant according to Significance Criteria 1.f. and 1.g. but would be mitigable to less than significant levels (Class II) with implementation of Mitigation Measure B-10a.

*Mitigation Measure for Impact B-10: Presence of transmission lines may result in electrocution of, and/or collisions by, listed or sensitive bird species collide with transmission lines*

**B-10a**      **Utilize collision-reducing techniques in installation of transmission lines.** There is no highly utilized avian flight path along this alternative; therefore, no marking of the overhead lines is required. All other mitigation that is required in Mitigation Measure B-10a, not related to the installation of markers, shall be implemented.

*Impact B-11: Presence of transmission lines would result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers (Class III)*

Common ravens have been documented to prey on the desert tortoise and the FTHL (Liebezeit et al., 2002; Flat-Tailed Horned Lizard Interagency Coordinating Committee, 2003), which do not occur along this alternative. The common raven has not been documented to prey on any other listed or sensitive wildlife in the vicinity of this alternative (Liebezeit et al., 2002), although the predation may still occur but would be adverse but less than significant (Class III). No mitigation is required.

*Impact B-12: Maintenance activities would result in disturbance to wildlife and could result in wildlife mortality (Class II for special-status wildlife and nesting birds; Class III for non-sensitive wildlife)*

The following APMs, as set forth in Table D.2-5, would be implemented to minimize or prevent disturbance to wildlife and wildlife mortality during project maintenance: BIO-APM-3, BIO-APM-4, BIO-APM-6, BIO-APM-7, BIO-APM-9, BIO-APM-10 through BIO-APM-13, and BIO-APM-16. With implementation of the APMs, impacts to non-sensitive wildlife would be adverse but less than significant (Class III). No mitigation is required.

These types of impacts would occur from maintenance: impacts to nesting birds if vegetation is cleared during the breeding season; impacts to eagles if maintenance activities occur within 4,000 feet of an active eagle nest; and/or mortality of special status species from grading, vegetation clearing, or use of access roads.

Even with implementation of the APMs, disturbance to wildlife and potential wildlife mortality would be significant according to Significance Criteria 1.a. (impacts to one or more listed species), 1.d. (disturbance of critical habitat), 1.e. (impacts to breeding eagles), 1.f. (impacts that directly/indirectly cause the mortality of candidate, sensitive, or special status species), 1.g. (violation of the Migratory Bird Treaty Act), 1.h. (violation of the Bald Eagle Protection Act), and 2.b. (substantial adverse effect on riparian or other sensitive vegetation communities if weed species are introduced). The impacts would be significant because the APMs are not specific enough or do not provide enough mitigation to adequately compensate for the impacts. The measures in the APMs shall still apply except where the mitigation measures are more specific or more restrictive than the APM requirements. In those instances, the mitigation measures take precedence. Impacts to eagles and other special-status wildlife species from maintenance activities are significant but mitigable to less than significant levels (Class II) through implementation of Mitigation Measures B-7h and B-12a.

Maintenance activities would impact nesting birds (violation of Migratory Bird Treaty Act) if vegetation is cleared during the general avian breeding season (February 15 through September 15) or the raptor breeding season (January 1 through September 15). This impact would be significant but mitigable to less than significant levels (Class II) with implementation of Mitigation Measure B-12a.

Maintenance activities would impact the coastal California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher if the noise threshold (i.e., 60 dB[A] Leq hourly) is met or exceeded at the edge of their nesting territories during their breeding seasons. Maintenance activities would also impact the golden eagle if activities would occur within 4,000 feet of an active golden eagle nest. These impacts would be significant but mitigable to less than significant levels (Class II) with implementation of Mitigation Measures B-7h and B-12a.

Maintenance activities would cause disturbance to, and possible mortality of arroyo toad and QCB. These impacts would be significant but mitigable to less than significant levels (Class II) with implementation of Mitigation Measures B-12b and B-12c.

*Mitigation Measures for Impact B-12: Maintenance activities would result in disturbance to wildlife and could result in wildlife mortality*

- B-3a** Prepare and implement a Weed Control Plan.
- B-7h** Implement appropriate avoidance/minimization strategies for eagle nests.
- B-12a** Conduct maintenance activities outside the general avian breeding season.
- B-12b** Conduct maintenance when arroyo toads are least active.
- B-12c** Maintain access roads and clear vegetation in quino checkerspot butterfly habitat.

### E.3.2.3 Central South Substation Alternative

The Route D Alternative would require use of the Central South Substation Alternative in order to convert from 500 kV to 230 kV. This substation would be located on private land at the north end of the Route D transmission line segment, west of the crossing of the San Diego River gorge. Figure E.3.1-2 illustrates the location of the substation. The substation is dominated by non-native grassland; Engelmann oak woodland, Diegan coastal sage scrub, and southern mixed chaparral are also present on the substation site (Figure Ap.8J-31).

Section E.3.2.3 presents a discussion of impacts and mitigation measures for the Route D Alternative, including the Central South Substation, as a result of construction, operation, and maintenance of the project (for a list of the impacts to this region see Table E.3.2-1.)

### E.3.2.4 Future Transmission System Expansion

For the Proposed Project and route alternatives along the Proposed Project route, Section B.2.7 identifies Future Transmission System Expansion routes for both 230 kV and 500 kV future transmission lines. These routes are identified, and impacts are analyzed in Section D of this EIR/EIS, because SDG&E has indicated that transmission system expansion is foreseeable, possibly within the next 10 years. For the SWPL alternatives, 500 kV and 230 kV expansions would also be possible. The potential expansion routes for the Route D Alternative are described in the following paragraphs.

#### *230 and 500 kV Future Transmission System Expansion*

The Route D Alternative would begin at approximately MP I8-70 and would head northward until it reached the Central South Substation Alternative at approximately MP 114.5 of the Proposed Project. The Route D Alternative would convert to 230 kV at the Central South Substation and a double-circuit 230 kV line would be constructed southwest from that substation to the Sycamore Canyon Substation. The Central South Substation would accommodate up to six 230 kV circuits and an additional 500 kV circuit. Only two 230 kV circuits are proposed at this time, but construction of additional 230 kV circuits and a 500 kV circuit out of the Central South Substation may be required in the future. There are two routes that are most likely for these future lines; each is addressed below. Figure E.1.1-6 illustrates the potential routes of the future transmission lines.

Additional 230 and 500 kV circuits could follow the Proposed Project corridor starting at MP 114.5. The routes could either: (1) follow the Proposed Project corridor southwest to the Chicarita Substation and then follow the Proposed Project's 230 kV Future Transmission Expansion System (see description in Section B.2.7) from Chicarita to the Escondido Substation; or (2) the Proposed Project northeast to the Proposed Central East Substation and then follow the Proposed Project's 500 kV Future Transmission Expansion route shown in Figure B-12b (see description in Section B.2.7).

See Section D.2.2.3, D.2.2.4, and D.2.2.5 for the Biological Resources setting and Sections D.2.5 through D.2.15 for the Biological Resources impacts, and mitigation measures of the Central, Inland Valley, and Coastal Links of the Proposed Project. See Section D.2.18 for the Biological Resources setting, impacts, and mitigation measures for the Future Transmission System Expansion of the Proposed Project.